



Effects of Learning Contexts on Knowledge of Verbs

**Lexical and Inflectional Knowledge of Verbs among
Pupils Learning Finnish in Northern Norway**

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**”... the study of language during its unstable or changing phases
is an excellent tool for discovering the essence of language itself.”
Dan Isaac Slobin (1977)**

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Teaching of Finnish in Norway has been my main occupation since I moved from Finland to Norway in the 1980s. As a language teacher, I often have wondered how languages are learned. Therefore, it was natural to choose a subject about language learning when I decided to start studying for my dissertation. From the very beginning, my idea was to compare two groups of learners in Norwegian school: bilinguals and classroom learners.

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SYMBOLS AND ABBREVIATIONS

Number

	Singular is not indicated
PL	Plural

Person

SG1	First person singular
SG2	Second person singular
SG3	Third person singular
PL1	First person plural
PL2	Second person plural
PL3	Third person plural

Voice

	Active is not indicated
PASS	Passive

Mood

	Indicative is not indicated
CON	Conditional
IMP	Imperative

Tense

	Present tense is not indicated
PAST	Past tense

Negation

	Negation verb of Finnish is indicated with English negation word <i>no</i> , followed by the personal ending.
NEG	Negative form of verb in present tense is indicated with NEG, in past tense negative form it is a participle.

Infinitive and participles

INF1	First infinitive
INF3	Third infinitive
PCP	Participle

Case

	Nominative is not indicated
GEN	Genitive
ACC	Accusative
PAR	Partitive
INE	Inessive
ELA	Elative
ILL	Illative
ADE	Adessive
ABL	Ablative
ALL	Allative
ESS	Essive
TRA	Translative

Clitics

POSS	Possessive suffix
Q	Question enclitic
CLI	Unspecified enclitic

/	Pause
//	Long pause
///	A very long pause
...	Hesitation

1. INTRODUCTION

1.1. Language learning and learning environments

Language learning is a cognitive process that takes place in a social environment. The intent of this study was to discover how two groups of learners managed the task of learning Finnish verbs in different learning contexts. My informant groups were *Norwegian-speaking classroom learners, or L2 learners*, who used the Finnish language only in the classroom environment, and *bilinguals (BL)*, who had acquired Norwegian and Finnish simultaneously in their bilingual families. I tried to identify differences and similarities between the groups regarding how they mastered Finnish verbs in different tasks. When I described the knowledge of Finnish verbs, I took into account four dimensions of verbs: verb vocabulary size and the organization of the verbs on the basis of frequency, semantics, and conjugation. I compared these dimensions of the verbs, and I identified correlations between the size and the organization of the verbs in the lexicon of my informants. I tried to find out not only how the knowledge of Finnish verbs in these dimensions varied in the two informant groups but also if the knowledge of verbs correlated with the contact that the informants had with the Finnish language outside the classroom. Language learning is seen not only as an individual cognitive learning process but also as a *social-interactive learning* process (see Tomasello 1999: 108) because the study took into account the social environment that is supposed to influence language learning.

Simultaneous bilingualism, meaning the acquisition of two languages at the same time, is considered to resemble first-language learning. There is a fundamental difference between *first-language learning, or L1 learning*, and *second-language learning, or L2 learning*, namely, the age when the learning process starts. It has been usual to define first language as the language one starts to learn before the age of 3; otherwise, it is usual to talk about the second language (Baker 1993: 67-68). Even if the starting age is an important factor in explaining the many differences between L1 learning and L2 learning, environmental differences also seem to matter. L2 learning may happen in an informal or a formal context in the classroom; in the latter case, the term *foreign language learning* is also used, but L2 learning can refer to informal and formal L2 learning (Ellis, R. 1994: 12; Berggreen & Tenfjord 1999: 17). Both informant groups in my study participated in Finnish lessons, so they learned in a formal context in the classroom, but they also were different because the bilinguals used Finnish outside the classroom, whereas the classroom learners did not, as I will demonstrate in chapter 2.

Ellis, R. (1994:214 - 215) discussed learning in natural and educational settings. Learners who are in contact with goal language speakers learn in a natural setting, in contrast to those who are only in contact with the goal language in an educational setting; however, there are many learners who learn in both types of settings. He pointed out that a general assumption is that learning in two environments, which he calls natural versus educational, is considered to be different. Another general assumption is that language learning in a natural setting results to a higher proficiency. However, Ellis asked if these assumptions are always correct. The learning processes in the classroom depends on the pedagogical approach, and in a

communicative classroom, the same kind of learning as in natural environment may happen, though natural conversation in the classroom is not very common (op.cit. 581). There are also examples that learning in a formal setting seems to result in more accurate language when compared to informal learning in some cases. Because the difference between natural and educational settings is a crude one, Ellis concluded that one must analyze the factors in each setting that are important for successful L2 learning (op. cit.216). I will discuss some of the different factors in diverse language learning environments.

Gass analyzed the factors connected to the language learning environment, namely, *input*, *output*, and *interaction*. Both the quality and the quantity of input are important factors in language learning. The quality of input that is presented to language learners in different learning contexts seems to have some common features. Language that is used with small children, that is, “baby talk,” is *modified input*. Also, L2 learners often use modified input, so-called “foreigner talk.” The function of modified input is to make the input easier for the language learner. In language classrooms, the learners also encounter modified input in their textbooks or in the language used by the teacher (Gass 1990, 2003).

There are different amounts of input in different learning contexts that may have an effect on language learning processes and the proficiency that will be acquired. For example, Andersen (1990: 64) demonstrated that second-language learning processes are dependent on learning contexts because the quantity of input may vary. If the possibility of getting input is reduced in the L2 classroom, the same kind of processes as in pidgin languages have been observed based on the lack of language input.

Baker presented a model for bilingual education and concluded that the educational setting is an important environmental factor that has an effect on the target proficiency of bilingual children and L2 learners. A higher level of bilingualism is the result if it is possible to use both languages in education. Formal language learning in the foreign language classroom does not seem to result in a high level of proficiency in the target language because there is a reduced amount of both input and interaction with the target language (Baker 1993: 150-167).

Input and output are connected to interaction because more interaction causes more input, and conversational interaction leads to even more output (Gass 2003). Language input consists not only of interactions with other speakers but also other opportunities to come into contact with the language one is learning: reading, the possibility of encountering the language in the mass media or education, and so on. The amount of interaction influences language learning and, consequently, target proficiency. For example, studies done in multilingual settings have demonstrated that when there is not enough interaction with the goal language users or when there are fewer opportunities to be in contact with the goal language, learning may be incomplete. There may be a lot of interaction with the majority language and its speakers, but not enough interaction with the minority language and its speakers, so the result will be that the majority language is learned easier than minority language (Svonnin 1993: 177-182). Hyltenstam and Abrahamsson concluded that the nature of the input, for example, the amount and the quality, is decisive in second-language and bilingual contexts more generally than in an L1 context (2003: 545).

Immersion studies have focused on the role of output in language learning. Immersion is an educational learning environment in which the benefits of informal language learning are moved in a formal learning context (Baker 1993: 230-231). According to Swain (1995), output is important because it seems to play a role in the development of syntax and morphology. Output stimulates the learners to move from semantic processing to grammatical processing, which is needed for accurate production.

The differences of input, output, and interaction, besides the age when language learning starts, seem to be the factors causing differences in the level of language proficiency in different learning contexts. According to Gass, most nonnative speakers do not attain complete mastery of an L2 or native-like proficiency (Gass 1990). The term *balanced bilingualism* is often thought to mean that a bilingual has native language competence in both languages, but as Skutnabb-Kangas pointed out, it is difficult to verify balanced bilingualism because it is not possible to describe exactly what native language competence is (1981: 43-44). Models of language proficiency, like Bachman and Palmer's (1996) model, reveal the complexity of language proficiency, but they cannot explain language proficiency in its entirety. Baker remarked that the term balanced bilingualism is difficult to define because it uses monolinguals as the point of reference. Balanced bilingualism may even refer to a balanced competence, that is, when the languages of the bilingual are not at the level of the native language (Baker 1993: 8; look also at Skutnabb-Kangas 1981: 263).

Bilingual language learning and L2 learning have most often been compared to monolingual language learning. In this study, L2 learners of Finnish who learned Finnish in the classroom setting and bilinguals growing up in Norway were compared to each other, not to Finnish speakers in monolingual settings. Therefore, it was not possible to conclude if the learners in this project reached the language proficiency of Finnish monolinguals in Finland or if the bilinguals in Norway mastered Finnish at the same level as Finnish monolinguals at the same age. My focus was to compare the classroom learners to bilinguals, not to discuss whether the informants had reached the same or a different level compared to monolinguals in Finland.

My study was concerned with the question of how language is learned in two different contexts. In usage-based models of language, which formed my theoretical framework, experiences with language and language use are considered factors that facilitate the individual's knowledge of language (Croft & Cruse 2004: 3). Experiences of students learning only in the classroom setting certainly are different from the language experiences of bilingual learners, but experiences also may be different concerning individual bilinguals. Interaction provides opportunities for both input and output. Therefore, language learning is also the result of the environment, not merely cognitive learning, because it is in the social environment where language is used and where individuals acquire experience with language.

1.2. Acquisition studies of Finnish

My research was a study of L2 learning in a formal context compared to bilingual L1 acquisition. In addition, the term second-language acquisition (SLA) is used, but it is not easy

to make any clear distinction between acquisition and learning in general, especially in regard to L2 learning (Martin 1995: 12). Therefore, I did not distinguish between learning and acquisition; I treated these terms as synonymous.

Studies of L1 and L2 learning and studies of bilingual language development are relevant to my study. In this chapter, I discuss some acquisition studies of Finnish as well as studies of bilingual development. Studies on the acquisition of Finnish verbs will be the focus of this presentation, although I will refer also to other studies that are relevant to my work. In addition, I will comment on the actual learning environment in the acquisition studies that I reference. Beside the studies presented in this chapter, other studies were important to the present study, including research on how verb frequency and semantics affect language learning. I will refer to these studies when I present these topics in chapters 5 and 6. Because the acquisition of morphology as well as syntax was the main interest in previous Finnish acquisition studies (Aalto & Latomaa & Suni 1997), many studies referenced in this chapter are mentioned again when I describe my informants' learning of verb conjugations in chapter 7. Along with acquisition studies of morphology, other studies of morphology that were important to the present study are presented in chapter 7.

The most substantial work on the acquisition of morphology in Finnish child language is the work of Toivainen (1980). His work described the acquisition of Finnish inflectional affixes by Finnish-speaking children ages 1 to 3. Besides other affixes, he also explained how verb suffixes develop in children's language. Laalo (1995, 1998) and Riionheimo (2002) studied on the development of suffixes in Finnish children's language. They also described the acquisition of verb morphology. Lieko (1992) studied the development of complex sentences in children's language, and Kauppinen (1998) studied the acquisition of conditional mode. Recently, Nieminen (2007) wrote about morpho-syntax in Finnish children's language. All these studies investigated learning Finnish as a first language in a monolingual setting. I will refer to the studies of Finnish children's language acquisition when I discuss the morphological learning of my informants.

The acquisition of Finnish as a second language is also quite a new area of research.¹ The research field has been actualized in recent years, the reason being that immigration to Finland increased in the 1990s. At the same time, interest in Finnish as a second and foreign language increased, so most studies of L2 learning presented in the bibliography are from the 1990s or later (Suni & Latomaa & Aalto 2002). Although there is a Swedish-speaking minority as well as a Sami-speaking minority, and even though other groups have learned Finnish as a second language for a long time in Finland, studies of Finnish as a second language were uncommon before the 1990s. The explanation may be that acquisition studies have been in the periphery as studies of Finnish because traditional research areas of language have been those that dominated (look at Martin 1995: 9).

¹ An overview article of these studies before 1997 is given by Aalto & Latomaa & Suni (1997) and there is a bibliography about Finnish as second and foreign language 1967 – 2002. (Suni & Latomaa & Aalto 2002).

The first dissertation on Finnish as second language was written by Martin (1995). She investigated the inflection of nouns in Finnish being learned by adults. She discussed the processes involved in learning Finnish inflectional morphology, and she concluded that the learning processes can be described using different models. One of these is the use of rules, but rules explain only uncomplicated learning tasks. With complicated tasks, language learners use processes based on paradigms. A basic process used is analogy (Martin 1995: 201). The results of her study are important for the present study, especially for the study of conjugation, because the factors that complicate the learning of noun inflection are the same factors that probably also complicate the learning of verb conjugation.

Even if morphology has been one of the main interests in acquisition studies of Finnish as a second language, not many other studies have researched the acquisition of verbs. However, Grönholm published articles and a research report (1993) on the acquisition of verbs. Her informants were Swedish-speaking pupils who were learning Finnish at school. The classroom learners were separated from the bilinguals in her study, and the L2 learners were compared to Finnish mother tongue students. Her study was based on written language, which was the traditional method of language acquisition studies earlier in Finland (Aalto & Latomaa & Suni 1997). Grönholm did not follow individual learners; rather, she compared groups of pupils taking part in Finnish classes at different levels in school. She also compared the acquisition of morphology to the acquisition of vocabulary in some of her articles (1994).

Lähdemäki (1995) studied the written production of Swedish-speaking Finnish L2 learners, but her informants were adults. Siitonen (1999) published her doctoral dissertation on the acquisition of verb derivations in Finnish as a problem for advanced learners of Finnish. Puro (2002) described the acquisition of verbs in language courses for adult L2 learners. I will compare my informants to the language learners in these studies, even though the informants in these studies were different ages than my informants, except for the learners in Grönholm's study, who were school age, with some being the same age as my informants. The L2 learning contexts in these studies also were different from mine because they described the learning of Finnish in Finland.

Many studies of bilingualism in Finland have described Finnish-Swedish bilingualism (e.g., Sundman [1998]), but even bilingualism between Finnish and one of the new immigrant languages in Finland has been the focus of studies of Finnish in a bilingual context (e.g., Berggreen & Latomaa 1994), which describe Vietnamese in Finland and Norway. There are also many studies of Finnish pupils in Swedish immersion programs, which have been popular in Finland since the 1990s. Buss (2002) studied the acquisition of verbs in Swedish immersion programs, though this study was about the acquisition of Swedish, not Finnish.

Acquisition studies of Finnish and studies of bilingualism have been conducted outside of Finland, and many such studies were undertaken in Sweden, which is only natural, considering the number of Finnish immigrants in Sweden. For example, one can mention the early research of Skuttnabb-Kangas & Toukoma (1976), Huss (1991), and Janulf (1998). However, none of these studies investigated the acquisition of verbs; only Kangassalo (1995) discussed how questions that include verbs develop in Finnish in the production of Finnish-

Swedish bilinguals. Studies of Finnish Norwegian bilingualism will be presented in chapter 2. Finnish L2 acquisition also has been studied in other countries besides Scandinavia. For example, the learning of Finnish nominal inflection by Estonian and Russian learners was studied by Kaivapalu (2005), who compared the two groups in a formal context. The studies of Finnish in a bilingual context were used in my study when I discussed contact with and the use of Finnish of the bilingual informants.

1.3. Informants and material

The data were collected from 10 informants who had learned the Finnish language in Norway. Five of these informants were Norwegian-Finnish bilinguals who have used Finnish and Norwegian simultaneously since childhood. The bilinguals ranged in age from 12 to 15 because it was not easy to find bilinguals of the same age. All of the bilinguals participated in Finnish lessons at school.

The bilingual informants were Anna, Kalle, Mari, Pekka, and Tiina. All of the informant names are pseudonyms. Anna was 12, Tiina was almost 13, and both were in Grade 7 when I collected the material. Pekka was 14 and in Grade 8. Mari was 15 and in Grade 9, and Kalle, who was 15, was in Grade 10. Anna and Tiina were classmates at the same school; Kalle, Pekka, and Mari were pupils at another school.

Five of the informants were classroom learners: Berit, Elin, Rita, Siri, and Vivi. All of these pupils had studied Finnish for at least 5 years prior to when the data were collected. Also, the classroom learners came from two different grades. Berit, Rita, and Siri were in Grade 10 when I collected the material. Berit and Siri were 16; Rita was 15. Elin and Vivi were in Grade 9, and both of them were 14. All of these informants were pupils at the same school, and they had the same teacher in Finnish.

Methodologically, the ages of the informants possibly should have been the same. Because of practical reasons, this was not possible. I suppose that the differences in age possibly were not important, especially concerning the bilingual informants. Concerning the classroom learners, the differences in grade levels naturally caused some disparity among the informants. I will discuss the potential effects of age on the informants' knowledge of verbs when I present the results.

I collected the material during the spring term of 2000. The material consisted of written and oral language tasks. They will be described in chapter 4. Aside from these language tasks, the pupils also completed a questionnaire in which they evaluated their language proficiency in Finnish. Another questionnaire, which was sent to the informants' parents, collected information about Finnish language use in the families and the informants' language contacts. This questionnaire was answered by all the families, but because Siri and Vivi are sisters, the family returned only one questionnaire.

The study received a concession from the Norwegian Data Inspectorate, *7170 Finsk i minoritetskontekst*. (See Appendix 1.)

1.4. Structure of study

In chapter 2, I discuss multilingualism in northern Norwegian society and introduce reasons for establishing Finnish and Kven in the Norwegian school curriculum. This chapter also includes the results of the sociolinguistic questionnaire, and the language choice and contacts of the informants in the present study are discussed.

Chapter 3 provides the theoretical basis of the study. In section 3.1., I present the most important point of departure of usage-based theories. In section 3.2., I discuss input as the basis of language learning. The verbs as a learning target are presented in section 3.3., and the meaning of lexical size and lexical organization for the knowledge of language is described in section 3.4. In section 3.5, I present the research questions. In chapter 4, I discuss the methodology and describe the language tasks succinctly.

In chapters 5, 6 and 7, I present the empirical results of the present study. I chose three approaches to research on the knowledge of verbs. All three chapters also include a theoretical introduction to these approaches. The first approach is the size and frequency of the verb vocabularies, presented in chapter 5. The second approach to the material is verb semantics, presented in chapter 6. The third approach is the conjugation of the verbs, presented in chapter 7.

In chapter 8, I present the results of the different approaches and compare them to each other. In section 8.1, I collect the results of the three approaches from chapters 5, 6, and 7 of the individual informants. The results are presented as verb proficiency profiles. These results are then compared to the results of the sociolinguistic questionnaire presented in chapter 2. In section 8.2., verb lexicons and verb conjugations are compared to each other, and the correlation between them is discussed.

Chapter 9 presents the conclusions. In section 9.1, I discuss the differences and similarities of knowledge of verbs in the two informant groups, and I briefly describe the main results. In section 9.2, I discuss the method used in the study, and in section 9.3., I present the pedagogical consequences of the study and discuss the need for further research.

2. MULTILINGUALISM IN NORTHERN NORWAY, AT NORWEGIAN SCHOOL AND IN INFORMANTS' FAMILIES

In this chapter, I will briefly present the history of northern Norway as a multilingual area. In section 2.1, the development of the multilingualism of the Kven minority is the focus; afterwards, I discuss the conditions of bilingualism in Norwegian-Finnish families. In section 2.2., a review of the status of Finnish and Kven language in Norwegian school is given. In section 2.3, I present the results of the sociolinguistic questionnaire in my study, and in section 2.4, I sum up the results and compare them to earlier findings.

Both Aikio and Lindgren have written many articles about multilingualism in the Kven minority from the sociolinguistics point of view. Examples include Aikio (1987); Aikio & Lindgren (1983); Lindgren (1999); and Lindgren (2003; in Lindgren & Eskeland & Norman). Besides being a topic of interest in sociolinguistic research, the Kven language has been the focus of dissertations of Lindgren (1993); Andreassen (2003); and Lane (2006), who compared code switching in Bugøynes between Norwegian and Finnish (Kven) to code switching between English and Finnish in Lappe in Thunder Bay in Canada. Finnish immigrants in northern Norway have been studied especially by Paavola (1994), Norman (1994), (2003), (2003; in Lindgren & Eskeland & Norman), Koskinen & Norman (1993) and Hjulstad Junttila & Andersson (1994). The relationship between the Kvens and Finnish immigrants was the focus of Anttonen's (1999) Dissertation. Hjulstad Junttila (1988) studied language choice in a northern Norwegian town where both Kvens and Finnish immigrants lived. Most recently, Storaas (2008) studied the processes of ethnic change among the Kvens or those with Finnish ancestors in Eastern Finnmark in Sør-Varanger, which was one of the centres of immigration from Finland in the 19th century. Norwegian school politics towards the northern Norwegian minorities was discussed in historical studies about Kvens (see for example Eriksen & Niemi 1981); Seppola's (1996) presentation covered school situation of the Kvens between 1720 and 1996. Söndergaard (1989) discussed the situation of Finnish as subject in Norwegian schools, Niiranen described Finnish as a second language after an experimental project in (1994) and (1996) and after the school reform (L97) in (1999) and (2003), and Norman described Finnish as a second language in 2004.

2.1. Multilingualism in Northern Norway in history and today

The two most northern counties in Norway, namely, Finnmark and Troms, have traditionally been multilingual and multicultural areas comprised of the Sami, Norwegian, and Kven populations. Many villages were, and to some degree still are, bilingual or even trilingual because of the contact among these three ethnic groups (Lindgren 1999).

Kvens speak a language close to the dialects of Finnish in northern Finland and northern Sweden, where a Finnish-speaking population lives on both sides of the Finnish-Swedish boarder (Lindgren 1999). Kvens immigrated to northern Norway mainly in the 18th and 19th centuries from these Finnish-speaking areas in northern Finland and northern Sweden, although some Kvens settled in Finnmark as early as the Late Middle Ages (Niemi 1997: 67).

Kvens comprised 24% of the whole population in Finnmark County and 8% in Troms County at the end of the 19th century. In the eastern part of Finnmark County, the Kvens were in the majority in Vadsø, also called “the capital of Kvens” (Eriksen & Niemi 1981 : 31; Lindgren & Eskeland & Norman 2003: 166).

Because of Norway’s assimilation politics toward minorities that originated in the middle of the 19th century, minority languages in northern Norway have lost speakers, especially between the late 19th century and World War II. According to the Norwegian population census from 1930, there were about 11,000 ethnic Kvens in the two most northern counties in Norway; about 8,000 of these were speakers of the Kven language. According to the population census of 1950, only some 2,000 persons were registered as speakers of Kven or as bilingual speakers of Kven and Norwegian or Kven and Sami. The real numbers of speakers of Kven are supposed to be higher, probably because many bilinguals were registered only as speakers of Norwegian. Still, the numbers in the population census demonstrates that the number of individuals who used Kven as a home language was declining (Eriksen & Niemi 1981; ; Innstilling 1976: 34-35).

Surveys of the situation of language knowledge in Finnish (Kven)² among school-aged children and their families in the Kven areas in Finnmark and Troms was made in the 1970s and the 1980s. According to the surveys conducted in 1974, less than 20% of pupils born in the 1960s had some knowledge of the Finnish language, but only 4% of the pupils were informed that they could use Finnish. There were 1,171 informants in the study (Innstilling 1976: 46-59). Aikio & Lindgren (1983) did a survey of the use of minority languages in families of pupils in 30 primary and lower secondary schools in Finnmark and Troms. Over 1,000 pupils answered the questionnaire. These pupils were born between the end of the 1960s and the middle of the 1970s. About 9% of the pupils used Sami language, and 4% used Finnish in their families. The schools where Finnish was used most frequently in the pupils’ families were the schools in Skibotn, Bugøynes, Børselv, Neiden, and Pasvik. Still, not all schools located in the Kven areas participated. For example, the schools in Vadsø never answered the questionnaire (Aikio & Lindgren 1983).

There are perhaps some 5,000 to 6,000 people who are still able use the Kven language more or less and some 12,000 who still understand the Kven language. These numbers were presented by the Norwegian Kven Organization (See Lindgren & Eskeland & Norman 2003: 167.) Those who can speak Kven are, for the most part, older people, as the research reports I referred to also demonstrated. Lindgren pointed out (op. cit. 170) that the last settlements where the Kven language was used between parents and children were Børselv in the Porsanger municipality and Bugøynes in the Sør-Varanger municipality, where Kven was used in internal communication in families as late as in the 1960s. In the study of Lane, the informants who participated in conversations in Bugøynes were 50 to 80 years old (2006: 69).

² Finnish is used as the name of the language in these reports even though one refers to Kven language.

There are both local and familial differences in how the Kven language is practiced among those who are able to use it. There are many Kvens who use Kven only when they are talking to Finnish people, but Kven can also be used between elder people in families or between friends. Kven men usually have maintained the knowledge of their language longer than women have (Lindgren & Eskeland & Norman 2003: 167-170). For example, in Alta, a traditional place where Kven is used between elder men, is the café in the Co-operation shop (Samvirkelaget) in Elvebakken, which was a centre of Kven settlement in the 19th century in Alta (Niiranen 1994: 52).

The minority situation in Norway changed in the 1970s when Norway received many immigrant workers from Asian and southern European countries, many of whom settled in southern Norway. Many Finns also immigrated to Norway at that time (Grønhaug & Saxi & Aase 1986: V; Niiranen 2001:81). After World War II, Finns immigrated to Norway because of unemployment in Finland. Finnish women settled in the northern part of the country most often because they got work in the fishing industry in the 1960s and the 1970s, and many Finnish men started to work in the oil industry in southern Norway, particularly in the 1980s. Still, there were more female than male immigrants who moved to Norway from Finland. Female Finnish immigrants often got married to Norwegian or Kven men and settled permanently in northern Norway. Marriage, not employment opportunities, could have been the reason for immigration quite often. In the 1990s, immigration from Finland increased again, especially by those working in the health services who immigrated to Norway (Lindgren & Eskeland & Norman 2003). In 1998, there were 5,406 immigrants from Finland in Norway; in 2000, that number had climbed to 6,550 (Bjertnæs 2000: 20.)

New Finnish immigrants, together with Kvens, started Finnish Norwegian societies in many places in the 1970s and the 1980s. In 1982, the Northern Norwegian Finnish Organization was founded to gather all the small local Finnish Norwegian societies under one umbrella organization. In 1987, the Norwegian Kven Organization (Norske Kveners Forbund) was founded to represent those who wanted to identify themselves as Kvens. However, both organizations have Kvens and new Finnish immigrants as their members. There have been tense debates if the ethnonym “Kven” should be used to identify the minority or if they ought to be called “those with Finnish ancestors” from time to time in newspapers in northern Norway. Also, the name of the language – Kven or Finnish - has been debated. (Anttonen 1999: 142-179, see also Storaas 2008).

The Norwegian Kven Organization worked to get official status for the Kven minority in Norway, and in 1999, the Norwegian government ratified the *Council of Europe’s Framework convention for the protection of national minorities*. A report on the status of the Kven language was released in 2003 (Hyltenstam & Milani 2003). The report concluded that it is possible to consider Kven a unique language, not a dialect of Finnish. In 2005, the Kven language gained status as a minority language in Norway.

The organizations representing Kvens and Finnish immigrants have worked to expand the use of minority language in different areas. A basic aim was to get Finnish or Kven accepted as a subject in Norwegian school curriculum. This issue will be discussed in the next section. Finnish radio programs in Norwegian Broadcasting started in 1970. The programs were 5 minutes per week at first, but since 1984, the Finnish program has been 15 minutes per week. The Northern Norwegian Finnish Organization gave out a newspaper called *Uuskveeni* from 1981 to 1987; from 1987 to 2002, this newspaper was given out with the name *Ruijan Sanomat*. Another newspaper called *Ruijan Kaiku*, or the Kven Finnish newspaper in Norway, was started in 1995 and comes out 10 times a year. (Anttonen 1999: 179-185). After Kven was recognized as a language of its own in 2005, work began to revitalize it. The Kven Centre (Kvensk institutt, in Kven *Kainun institutti*) was grounded in Børselv, Porsanger municipality, in 2006. Its goal is to revitalize the Kven language and culture.

In the families of Finnish immigrants and Norwegians, both languages can be used with the children to bring them up as bilinguals. According to a research report by Koskinen & Norman (1993) describing Finnish women living in Northern Norway, 40% of the 319 women used Finnish always with their children, 44% used it now and then, and 16% did not use Finnish with their children at all. Norman pointed out (in Lindgren & Eskeland & Norman 2003: 216) that even if the report is more than 10 years old, the situation may not have changed much since that time. Those mothers always using Finnish with their children have chosen the so-called *one person one language – strategy*. Children in the families where this strategy is used may achieve a better command of Finnish than the children in those families where Finnish is used only occasionally (See Romaine 1989:166; Huss 1991; Engen & Kulbrandstad 2004: 96). The choice of minority language in a family's internal communication is important for maintaining the minority language, but as Norman pointed out, contacts outside the family are important for developing bilingual language proficiency (op. cit.: 215 – 216).

The possibility of using language in many *language domains* is an important factor for maintaining and developing bilingualism. Romaine (1989: 29) defined a domain as the following: "A domain is an abstraction which refers to a sphere of activity representing a combination of specific times, settings and role relationships." Important language domains include family, friendship, religion, employment, and education. There are several other conditions resulting, namely, either maintenance or shift of minority language in society. (Romaine 1989:38-50). One of these is the number of minority members and their settlement patterns. A large minority group living in a restricted geographic area can maintain their language more easily than a small group living in a large area. Close ties with the homeland can aid in language maintenance. The majority language is most often used in mixed marriages, in contrast to immigrant families, where both parents speak the minority language. Romaine mentioned language attitude toward minority language and bilingualism among both minority and majority language speakers. Positive attitudes toward a minority language,

however, are not a guarantee of maintaining it. More important is the benefit gained from mastering the minority language (op. cit.: 43).

The Finnish immigrants in northern Norway were the immigrant group who most often used the majority language (Norwegian) in comparison to the other groups, according to a comparative study of immigrants in Nordic countries (Andersson & Hjulstad Junttila 1994)³. Finnish was also used less with children in families in Finnmark than Finnish was used in families in Göteborg, one reason being that families in Finnmark were most often Norwegian Finnish inter-ethnic families, but in Göteborg, both parents of immigrant families were Finnish speakers. Beside this fact, differences in the infrastructure of Finnish and the language networks explained this difference in language use between the two groups. For example, in the networks outside the home, Norwegian was used the most often in Finnmark, but Finnish was used in such networks quite often in Göteborg.

Still, those immigrants in Finnmark who lived near the Finnish border were able to hold close contacts with Finland easily, as Paavola (1994) demonstrated. However, she concluded that not many conditions benefiting minority language maintenance were available in northern Norwegian societies. Bilingual children used Finnish usually only at home, though they also could have 2 or 3 hours of Finnish at school per week. Because the number of Finnish speakers in many northern Norwegian societies was low, the opportunities to use Finnish were few. The bilingual children did not normally have other Finnish-speaking children to communicate with. For example, Hvenekilde & Hyltenstam & Loona (1996:45) focused on feedback from peers as an important factor so that bilingual children would develop idiomatic knowledge in both of their languages. There were only a few professions in society where knowing the Finnish language was seen as a benefit. The status of the Finnish (Kven) language has traditionally been low, and language attitudes in the society toward bilingualism were negative earlier. For example, Norman (in Lindgren & Eskeland & Norman 2003: 218) mentioned that even in the 1970s, for example, professionals in health care services and school teachers sometimes were negative toward bilingualism because according to their view, the result could be semilingualism, or a situation where full competence would not be achieved in any of the bilinguals' languages (for semilingualism, see Romaine 1989).

Paavola (1994) concluded that to bring up children as bilinguals in Finnish and Norwegian is not an easy task. Still, she also pointed out that there are different definitions of bilingualism and that if bilingualism is defined, not taking the monolinguals as a norm, the results of bilingual education can still be satisfying. Norman (2003) described the situation of Finnish Norwegian families in Tromsø from the 1960s to the 1990s and found out that bringing up children as bilinguals was not usual in the 1960s, but the situation changed in the 1990s, and it was more usual to use Finnish to children in Norwegian Finnish families by that time than before. Also, the attitudes toward bilingualism were changing in the society, and bilingualism was seen as a natural occurrence in multiethnic families.

There are not many investigations about the Finnish language of bilingual children in Norway. Paavola (1994) presented examples of Finnish produced by some Finnish Norwegian

³ The investigation included Americans, Turkish, Vietnamese, and Finns in Göteborg and Finnmark.

bilinguals in her article, and she discussed some syntactic features in their language; Niiranen (1999) and Norman (in Lindgren & Eskeland & Norman 2003: 223) gave a short demonstration of the language produced by bilingual children who grew up in Norway. On the basis of the investigations made about language choice in bilingual Norwegian Finnish families (Koskinen & Norman 1993) as well as the investigations about their language contacts (Andersson & Hjulstad Junttila 1994), one is able to suggest that knowledge of Finnish may vary a lot among Norwegian-Finnish bilinguals because the amount of input and opportunities to use the Finnish language seem to vary.

One factor in the maintenance of bilingualism is institutional support, for example, the possibility of having the minority language at school (Romaine 1989: 43-44). Bilingual children in northern Norway attended in the mother tongue-instruction earlier; today, many of them participate in Finnish as a second language teaching. Because the minority language is not used in family internal communication anymore among the Kvens, children are able to learn the Kven or Finnish language only at school today. In the next section, I discuss how the status of Finnish or Kven in Norwegian schools has changed and how the minority language was introduced in the Norwegian national curriculum.

2.2. Status of Finnish and Kven in Norwegian schools

Schools were the most important institutions to implement assimilation politics from 1850 to the beginning of the 20th century (Niemi 1997: 71-73). Kven and Sami children were able to use their native language in the classroom as an auxiliary language to begin with, but the minority language was used only to help the children learn Norwegian. The right to use Kven as an auxiliary language in school was revoked by law in 1936 (Eriksen & Niemi 1981: 298-299).

The teaching of the Finnish language in northern Norwegian schools began again in the 1970s, one reason being the influx of Finnish immigrants (Grønhaug & Saxi & Aase 1986: V). At the same time, the status of the Sami language started to change. Sami-speaking children were able to get instruction in the Sami language in the 1960s. In the 1970s and the 1980s, use of the Sami language in school increased, and many new Sami institutions and organisations were established (Drivenes & Jernsletten 1994: 265-274).

In addition, the Kven minority started to demand their language in school in this new situation. In the 1980s, 30 schools in northern Norway provided lessons in Finnish (Niiranen 1994: 22). In 1985, a teacher in Børselv started to use the local Kven dialect instead of standard Finnish (Aronsen 2000), following the model used in northern Sweden, where the local Finnish language, called *meänkieli*, “our language,” was used instead of standard Finnish as the language of instruction at school (Huss 1999: 135).

The National curriculum of 1985 (temporary version) included the Finnish language as an elective subject. This was the first time since World War II that the Finnish language had been introduced in Norwegian school curriculum (Seppola 1996: 58). Kven minority members suggested that Finnish could get a status as second language in a new revised

curriculum in 1987, following how the instruction of Sami as second language was arranged⁴. This suggestion was also supported by the administration of Finnmark County (Seppola 1996:58). Even though the National Curriculum in the 1980s emphasised the local culture, which in a northern Norwegian context in many areas would mean focusing on the local Kven minority, its language and culture, the ministry was not responsive to the demand.

In 1990, an experimental project called “Finnish as Second Language” started. It soon became popular. The evaluation of the experiment was positive, but the ministry of education was only willing to give Finnish status as an elective in the new curriculum of 1997. This view was based on the minority status of Kvens; by that time, the Kvens did not yet have any special minority status in Norway, despite having a long history in the country. However, the Parliamentary Committee of Education and the Norwegian Parliament supported the teaching of Finnish as a second language, and the Finnish language gained status as a second language in the Norwegian national curriculum in 1997 (Seppola 1996; Niiranen 2001).

Since 1997, the teaching of Finnish has expanded. School legislation was changed in 1997, and pupils living in the Kven area gained the right to learn Finnish as a second language if a minimum of three pupils at a school asked for it (Opplæringsloven, Chapters 2-7.) At the same time, the number of pupils participating in Finnish lessons increased from about 100 pupils at the beginning of the 1990s to about 1,000 pupils in Finnmark and Troms. In 2006/2007, the numbers were 652 pupils in Finnmark and 239 pupils in Troms (Finsk som andrespråk. Strategisk plan 2007/2008.) In most cases, the language that is used is standard Finnish. The Kven language is used only in the municipality of Porsanger and in a few other schools (Niiranen 2001).

According to the (1997) curriculum, Finnish as second language lessons are introduced during the first year at school, and there are 1,111 hours of lessons of Finnish during the 10 years of elementary and lower secondary school (Læreplan i finsk som andrespråk L 97). This means that the pupils have about 3 hours of Finnish per week. Most of the pupils from a Kven minority background who choose Finnish as a second language do not use the minority language at home; only if one of the parents comes from Finland could the Finnish language be used in Kven families with children. Therefore, the methods to teach Finnish are those of foreign language teaching. A new curriculum was introduced in the autumn of 2006. This curriculum included Finnish as a second language, but the Kven language as the goal language was presented as an alternative for Finnish standard language in this curriculum (Læreplan i finsk som 2. språk LK-06).

Because instruction is provided in the mother tongues of immigrant children only if the children do not know enough Norwegian to follow the mainstream lessons (Læreplan i morsmål L97), the bilinguals are not able to get instruction in Finnish as mother tongue. This means that Finnish-Norwegian bilinguals in Finnmark and Troms County often follow their courses in Finnish as a second language. Before school reformation in 1997, many of these

⁴ It was possible to choose Sami either as first or second language according the National Curriculum of 1985. In Norwegian context this meant that the choice of Sami could replace one of Norway’s two official written languages, in northern Norway most often New Norwegian.

bilinguals, especially in Finnmark, followed Finnish mother tongue lessons in Finnish (Niiranen 1999:93 – 97; 2003: 97). In some schools, for example, in Alta, bilingual pupils and those who start to learn Finnish first at school are divided into separate groups, but in many schools, all Finnish pupils attend the same lessons. The heterogeneity of pupils' background knowledge in Finnish means a pedagogical challenge for teachers in Finnish, but because the teaching groups are often small, it is not always possible to divide them into different levels. As the knowledge of Finnish among the bilinguals in northern Norway may vary, as I have pointed out, the difference between those who learn only in the classroom and those who also use Finnish outside the classroom is not necessarily that large. Søndergaard (1989), who investigated the situation of Finnish language teaching in northern Norway, concluded that it would be possible to offer Finnish as a second language instruction both to bilinguals and those learning only in the classroom, but he suggested that these pupils ought to be divided into two groups according to whether they use Finnish at home, or not.

The learning material used in the Finnish classes has often been textbooks produced in Finland for Finnish-Swedish minority children. One frequently used book had been Slotte's book, *Askel eteenpäin*. Textbooks produced for immigrant children in Finland have been used in recent years. The bilinguals also have used textbooks meant for mother tongue pupils in Finnish. After the school reform in 1997, the National Education Office in Troms County had the responsibility to make teaching materials in Finnish. The materials produced were given out on the Norwegian School Net (www.skolenett.no.finsk). There is only one textbook in Finnish produced in Norway, a book called *Ymmärrän*, written by Bente Immerslund in the 1980s, which is meant for pupils in higher secondary school. In the *Strategic Plan for Finnish as a Second Language 2007/2008*, the County Authority in Finnmark and Troms pointed out that the need for teaching materials in the school subject is large, especially in the lower classes. Besides the textbooks produced in Finland and the existing materials on the Norwegian School Net, many teachers make their own materials.

After the Kven language gained status as a minority language in Norway, work began on producing teaching materials in the Kven language to be used in the school curriculum. The Norwegian School Net includes also some materials in Kven, and the Kven Institute recently started to produce materials in Kven (www.kvensk institutt.no). Besides these materials, some materials are produced by individual teachers. Teaching materials, including a textbook and grammar in Kven, was produced at the University of Tromsø by Eira Söderholm in 2007. This material is produced for students who study Kven in courses given by the University of Tromsø, Institute of Language and Linguistics.

The challenges to teach a minority language at school are always huge because support for the minority language from society often is very restricted. This is not less so concerning Finnish and Kven languages in Norwegian schools because the use of these languages in society is low. According to Baker's classification, Finnish as a second language can be identified as a weak form of bilingual education because it guarantees that the minority language is taught only some hours per week in a mainstream school using foreign language methodology (See Baker 1993: 153.) In my study, I compared two major groups of pupils who participated in

Finnish as second language lessons. In both groups, the goal language of instruction was Finnish, not Kven. In the following chapters, I present the choice of and the contacts with Finnish and Kven language in the families of my informants. I also present the type of instruction in Finnish that my informants attended during their years at the Kindergarten and at school.

2.3. Language contacts and language choice in informants' families

Information about language use and language contacts in the families of the informants was gathered using a sociolinguistic questionnaire (see Appendix 2). Questions about the choice of Finnish at home, contact with Finnish or Kven speakers in the home village, the family's visits to and from Finland, and contact with Finnish relatives and the language choice in these relationships were asked in the questionnaire. The questionnaire also surveyed the use of the Finnish media in each informant's family. The questionnaire asked about the informants' knowledge of Finnish and Kven media products and about their potential interest in Finnish and Kven in the media; in addition, there were questions about the factual use of Finnish media products in the family as well as the use of Finnish TV and radio programs, music and videos, newspapers, magazines, and books in the family.

Figures 2.1 to 2.8 in the following section are based on the numeral values 0 to 3 that were given from different alternatives in the questionnaire. The numeral values given from the alternatives can be found in Appendix 2. Question IV/1 includes many alternatives but the sum of them is divided by 3, meaning that the highest figure of this alternative is 3.

2.3.1. Minority language proficiency and language choice in informants' families

In part I of the questionnaire, there were questions about the parents' knowledge of Finnish or Kven; in part III, there were some questions about the grandparents' knowledge of Finnish or Kven. Table 2.1 shows the knowledge of Finnish or Kven in the families:

Table 2.1

Knowledge of Finnish or Kven in families of bilinguals (BL) and classroom learners (L2)

	mother	father	mother's mother	mother's father	father's mother	father's father
BL						
Anna	Finnish	some Finnish / Kven	Finnish	Finnish		
Kalle	Finnish	some Finnish	Finnish	Finnish		
Mari	Finnish	can Finnish / Kven*	Finnish	Finnish	can Kven	can Kven
Pekka	Finnish	some Finnish /Kven	Finnish	Finnish		
Tiina	Finnish		Finnish	Finnish	can Kven	
L2						
Berit			can Kven		can Kven	can Kven
Elin		some Finnish / Kven			can Kven	can Kven
Rita						can Kven
Siri		some Finnish / Kven				
Vivi		some Finnish / Kven				

* The questionnaire asked if each informant's parents or grandparents were able to speak Finnish or Kven. However, it did not make a clear distinction between these language forms. The grandparents' language competence is described as competence in Kven in Table 8.1, but the competence of the Norwegian fathers is described as competence in either Finnish or Kven if the informants did not specify his competence in the questionnaire.

All of the bilingual informants had a Finnish-speaking mother; the mother's parents were also Finnish mother tongue speakers. Also, many of the fathers were able to speak Finnish or Kven. Some of the grandparents living in Norway were or used to be speakers of Kven.

Among the families of the classroom learners, only Elin's father and the father of sisters Siri and Vivi indicated that they had some knowledge in Kven or Finnish; the classroom learners had relatively many grandparents with some knowledge of Kven. Still, none of the classroom learners used Finnish or Kven with their parents or grandparents. Figure 2.1 presents the choice of Finnish at home in the group of the bilinguals.

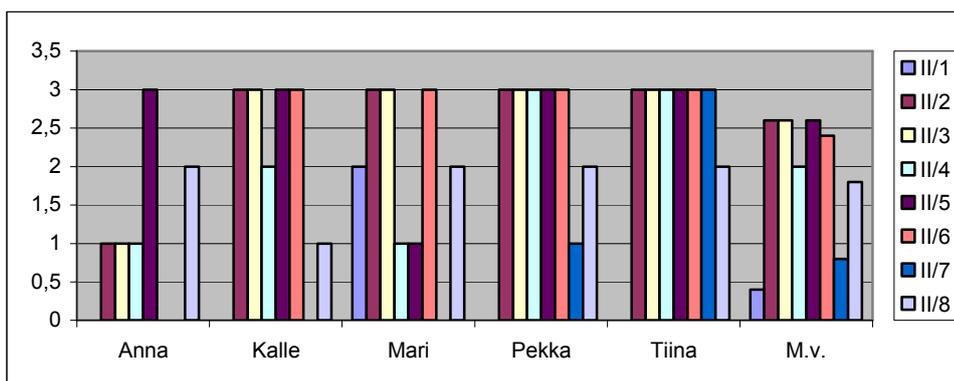


Figure 2.1. Choice of Finnish at home.

II/1 Do mother and father speak Finnish together?

II/2 When did you start to speak Finnish to the child?

II/3 Has Finnish been used consequently?

II/4 Does the child answer Finnish questions in Finnish?

II/5 How do you react when the child chooses 'incorrect' language?

II/6 Which languages did you read to the child when she was small?

II/7 Which languages do the siblings use together?

II/8 Is the model of language use different than an earlier period after the child grew up?

The mother and father spoke Finnish or Kven to each other in only one of the families of the bilinguals. Even though the fathers in some other bilingual families could speak some Finnish, Finnish was not used in communications between mothers and fathers. All of the other families, except for Anna's family, revealed that they used Finnish to the informant from the very beginning. Anna's mother did not give any information about when she started to use Finnish with Anna (question II/ 2 in the questionnaire), but she indicated that she used some Finnish with Anna when she was small, so a numeral value 1 was given to this answer. In Anna's family, Finnish was not used consistently by the mother, which was in contrast to all of the other families that revealed that the mother always used Finnish when communicating with the informant.

Only 2 of the bilinguals, Pekka and Tiina, answered in Finnish when their parents spoke to them in Finnish. The questionnaire also asked about the strategies to get the child to use Finnish when communicating with the Finnish-speaking parent. Only Mari's mother felt that it was natural for Mari to use both languages when speaking to her, so she did not demand that her daughter answer in Finnish.

In all of the families, except Anna's, Finnish was used in reading activities in childhood. Actually, in Tiina and Pekka's families, only Finnish was used by the Finnish-speaking mother when reading to the child. The alternative was 'most often in Finnish' in the questionnaire; the mothers of Tiina and Pekka changed this alternative and wrote in the questionnaire 'only in Finnish.'

Only in Tiina's family Finnish was always used in communications between the siblings, and sometimes in Pekka's family. In the other families, only Norwegian was used in communications between the siblings. In Tiina's family, the Norwegian father was not living with the rest of the family, so the linguistic situation in her family resembled a minority family situation: in other words, the minority language was the home language of the family.

Only Anna's and Kalle's families reported that the model of language use changed in the families after the children had grown up; this meant less use of Finnish in the family when compared to an earlier period.

2.3.2. Contact with Kven or Finnish speakers in home village

The questionnaire asked the families to evaluate their home villages regarding Kven traditions. The families also were asked about the use of Kven or the Finnish language in their home villages, as well as how often the families participated in activities where Kven or Finnish could be used.

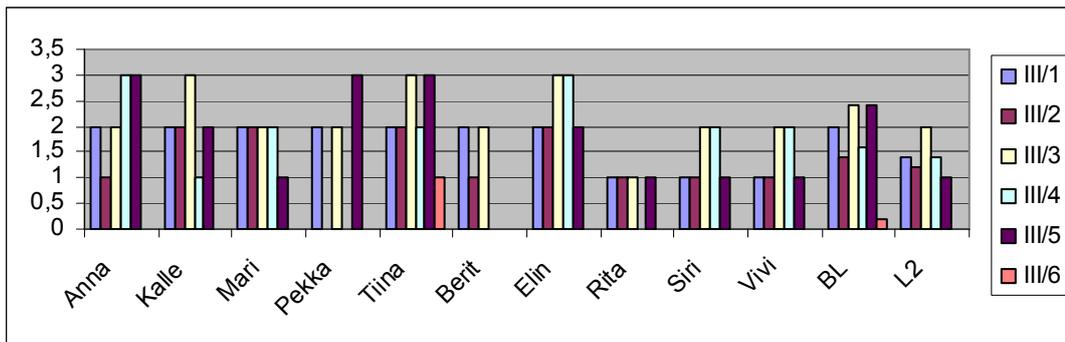


Figure 2.2. Contact with speakers of Finnish and Kven language in informants' home village.

III/1 Are there many living Finnish/Kven traditions in your village?

III/2 How often do people use Finnish/Kven in your village?

III/3 How often do you meet Finnish/Kven speakers in your village?

III/4 Does your family participate in a Finnish/Kven club?

III/5 Does your child meet other Finnish-speaking friends in your village?

III/6 Which language do they choose in these meetings?

Even though the families described different villages, all of them were villages where Kven was used traditionally. Finnish-speaking immigrants continue to live in all of these villages. All of the families of the informants identified their villages as having Kven traditions. The classroom learners described their home villages as having fewer Kven traditions in comparison to the bilinguals; the difference reflected the fact that these informants described different parts of northern Norway. The level of use of minority languages in the home villages was also described differently by the families in both informant groups, though this had a connection to the fact that the informants lived in different parts of these villages with different numbers of Kven or Finnish speakers around them. Although Pekka, Kalle, and Mari were schoolmates, Pekka's family in particular described the home village quite differently in regards to how often the minority language was used in their village in comparison to Mari and Kalle. All of the families, except Berit's, commented that the children met other Finnish-speaking children in their home villages, but only Tiina's family revealed that the Finnish language was sometimes used in these meetings.

2.3.3. Contact with Finland

This chapter presents the contacts that the families have with Finland and the relatives living in Finland.

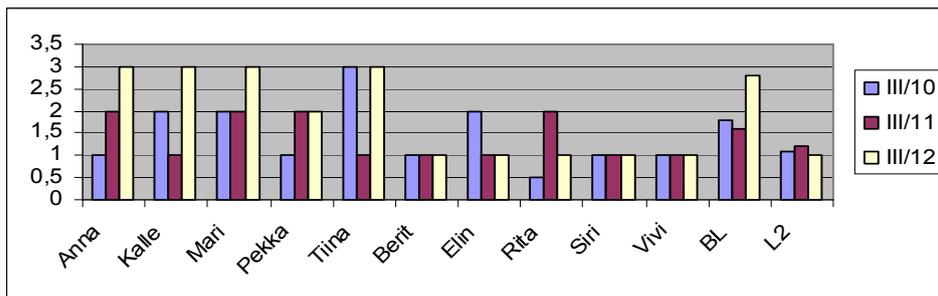


Figure 2.3. Visits to and from Finland.
 III/10 How often does your family travel to Finland?
 III/11 How long does the visit in Finland last?
 III/12 How often does the family get visitors from Finland?

The families of the bilingual learners and those of the classroom learners have travelled to Finland, the families of the bilinguals travelling more often than the other families. The bilingual families have received guests from Finland more often than the classroom learners, which was natural because the mothers' families were living in Finland. There were some differences between the bilingual families concerning how often they visited Finland and how long such visits lasted; these differences were connected to the areas that these families visited. For example, Tiina's family lived near the border with Norway; therefore, the visits to Finland were more frequent, but they did not last that long when compared to some visits by the bilingual informants.

Figure 2.4 describes the contact with the Finnish relatives in the bilingual families. The classroom learners did not have any close family living in Finland.

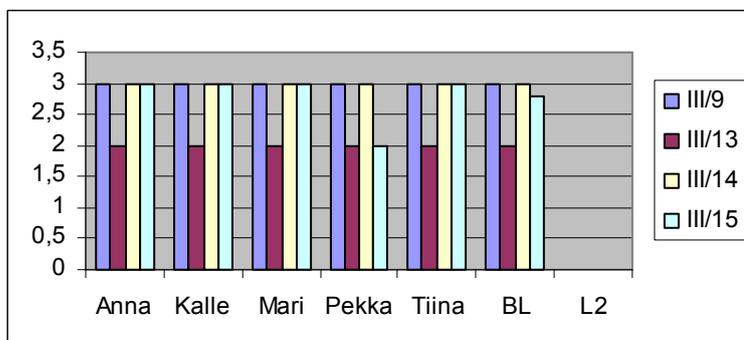


Figure 2.4. Contact with Finnish relatives.

- III/9 Which language does the child speak with the Finnish grandparents?
- III/13 How often does the child meet her cousins in Finland?
- III/14 Which language does the child use with her Finnish cousins?
- III/15 How often does your family talk with Finnish relatives on the telephone?

Figure 2.4 demonstrates that the language choice with the Finnish relatives was similar in all the bilinguals' families; only Finnish was used between the Finnish relatives and the bilingual informants. The Finnish language was used not only when the families were visiting Finland or receiving visits from Finland but also frequently when the families telephoned their Finnish relatives.

2.3.4. Interest in and use of Kven and Finnish media products

In this section, I will show how interested the families were in media products where Finnish or Kven were used. The section also introduces the factual use of Finnish or Kven media products in the families of the informants, based on the answers to the questionnaire. I will present all the figures first and comment on them afterwards.

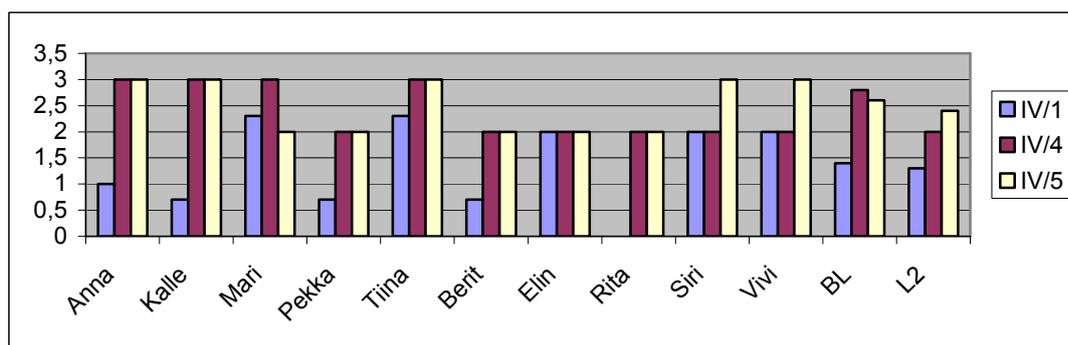


Figure 2.5. Interest in use of Kven or Finnish in media.

- IV/1 Do you know a) a CD in Kven, b) a video film in Kven, or c) a book in Kven?
- IV/4 If there is a program about Kven/Finnish-speaking people in Norway in Norwegian TV or radio, would you be interested?
- IV/5 If there is a program about Finland in Norwegian TV or radio, would you be interested?

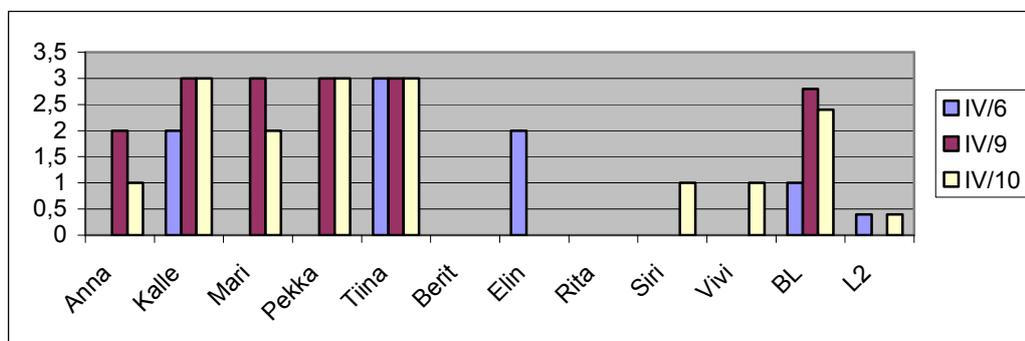


Figure 2.6. Use of Finnish TV and radio programs.

- IV/6 Does your family listen to the Finnish program in Norwegian radio?

IV/9 Does your family look at Finnish TV channels?
 IV/10 Is there anyone in your family who listens to Finnish radio channels?

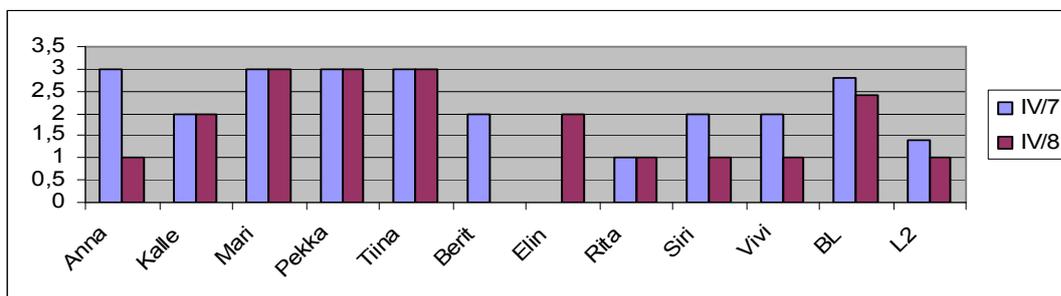


Figure 2.7. Finnish music and videos.
 IV/7 Does anyone in your family listen to music CD or music cassettes in Finnish?
 IV/8 Does anyone in your family look at videos in Finnish?

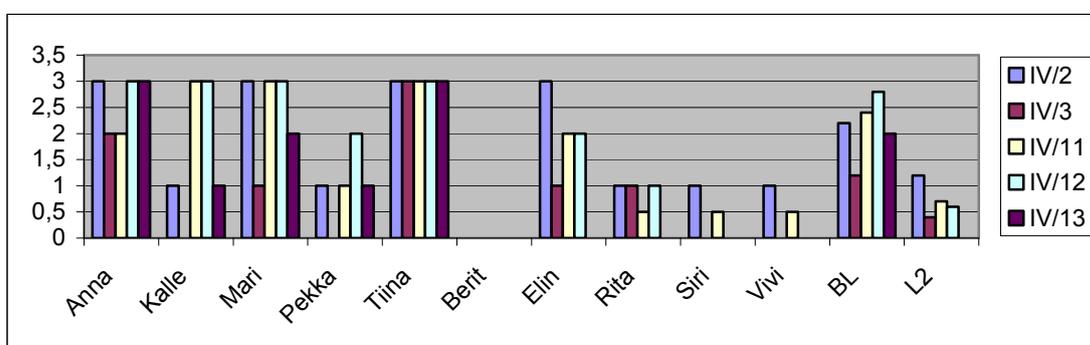


Figure 2.8. Reading in Finnish.
 IV/2 Does your family read Ruijan Kaiku (a Kven/Finnish newspaper)?
 IV/3 Does your family read Ruijan Sanomat (a Finnish immigrant newspaper)?
 IV/11 Does anyone in your family read Finnish magazines or newspapers?
 IV/12 Is there anyone in your family who reads books in Finnish?
 IV/13 Does your family borrow books in Finnish from the Norwegian library?

Figure 2.5 shows that the informant groups were not that different in their knowledge of some Kven media products. However, the bilingual families seemed to be more interested in programs that presented the Kven minority or Finnish immigrants in the Norwegian mass media when compared to the families of the classroom learners.

Figure 2.6 presents the use of Finnish radio and TV programs in the families. The bilingual families seemed to listen to the Finnish program broadcasted in Norwegian radio quite often. There is a short program in Finnish in Norwegian radio once a week. It is not possible to get Finnish television programs all over northern Norway without having a special receiver, but in some areas, Finnish television broadcasting is available. As the figure demonstrates, Finnish television programs were followed by the bilingual families frequently. The classroom learners come from an area where it is not possible to receive Finnish television broadcasting, so they do not watch Finnish TV at all.

Finnish music and Finnish videos were used by both informant groups, even though the bilinguals used these media products more frequently than the classroom learners, as Figure 2.7 demonstrates.

Finnish-language newspapers, magazines, and books were used by the families of both informant groups, as presented in Figure 2.8; only one family indicated that they did not read anything in Finnish. The minority newspaper *Ruijan Kaiku* was used not only by the families of the bilingual informants but also by the families of the classroom learners. This newspaper has articles in Finnish, Kven, and Norwegian. Actually, in the families of Elin, Siri and Vivi, the fathers revealed that they had some knowledge of Finnish or Kven; in these families, the fathers possibly were able to read in Finnish or in Kven. It seemed that the newspaper *Ruijan Kaiku* was read more by those families of the classroom learners that participated in Finnish or Kven clubs, with the only exception being Rita. The bilinguals' families revealed that they borrowed Finnish books from the library; the families of the classroom learners did not.

2.3.5. Finnish in Kindergarten and at school

Three of the bilingual families stated that their children had a Finnish teacher or a "language trainer" in Kindergarten. These were the families of Anna, Kalle, and Tiina. Pekka did not have any Finnish-speaking teacher in Kindergarten, and Mari did not have a trainer, but her family indicated that there were Finnish- or Kven-speaking persons working in the Kindergarten.

The bilingual informants started their lessons in Finnish at school in the first grade; only Kalle's family stated that he started Finnish lessons in the second grade. Anna, Pekka, and Tiina had received Finnish mother tongue instruction, Kalle had both mother tongue instruction and Finnish L2 instruction, and Mari had Finnish L2 instruction. Kalle's family indicated that Kalle had two to three lessons per week; all of the other the bilinguals had three lessons per week.

All of the bilingual families revealed that there had been many teachers in Finnish during the school years, but only Mari's family mentioned that this situation was problematic. The bilinguals had most often used textbooks that were meant for Finnish-speaking children in Finland, but only Kalle's family reported that textbooks used in the Finnish instruction of Swedish speakers in Finland were used in his Finnish class. Beside textbooks, a variety of cassettes, videos, CDs, and the Internet were used in the Finnish classes of the bilinguals. Textbooks that were meant for Finnish-speaking children in Finland originally were too difficult for the bilinguals in Norway, according to Mari's parents.

Kalle and Pekka were highly motivated to participate in Finnish lessons, but the motivation of the female informants fluctuated. According to Kalle's mother, her son's motivation was the result of an enthusiastic teacher and instructional methods that took into account the pupils' individual differences. Anna's mother reported that Anna lost her motivation when there was too much focus on learning grammar or when the teacher was too demanding. According to Tiina's mother, many factors influenced how motivated the pupils were to take part in Finnish

lessons, such as how motivated the parents were, the attitudes of the friends of the child, and the status of the subject at school.

All of the other parents, except Mari's, reported that the Finnish instruction at school corresponded quite well with their expectations. Mari's parents were only partially satisfied with the Finnish instruction their daughter received at school. Mari's parents suggested that more suitable teaching materials should be used and that the Finnish language teaching ought to become the teaching of a second language instead of mother tongue. They suggested, for example, that there ought to be more instruction about the local Kven culture in the Finnish lessons.

The classroom learners started their Finnish lessons usually in the first or second grade, but Rita started in the third grade. All of them received Finnish lessons as a second language, and they had between two and three lessons per week. In addition, the classroom learners reported that there had been many different Finnish teachers during their school time, but only Elin's family described this situation as problematic.

Finnish textbooks produced in Finland for Swedish-speaking pupils were used the most often in the Finnish class of the classroom learners. The questionnaire did not ask which text book the pupils used, but the teacher of these pupils at the time the material was collected informed that the book she used was volume two of Slotte's book, *Askel eteenpäin*, a textbook written for Swedish-speaking pupils in Finland (see Slotte 1987.) Besides textbooks, cassettes and videos were used in the Finnish classes, and the teachers prepared their own materials. All the classroom learners were highly motivated to participate in Finnish class, except Elin, whose motivation was described as shifting by her parents. Instruction in Finnish did not correspond with the expectations of Elin's parents at all. Berit's mother stated that she was satisfied with the Finnish instruction to some degree; Rita's mother was quite satisfied; and the parents of Siri and Vivi felt that the instruction of Finnish matched their expectations to a high degree, although they did not like the pupils leaving other lessons to participate in the Finnish classes. They suggested that the Finnish classes should have more contact with Finnish pupils in Finland, for example, by arranging an organized exchange of school classes or summer camps in Finland.

2.4. Summary

The sociolinguistic questionnaire revealed that the informant groups were different concerning the use of Finnish or Kven in their families' internal communication. The classroom learners did not use Finnish or Kven at home, but all the bilinguals had one Finnish speaking parent, a mother, and they used Finnish with her more or less in communication. There were also many Norwegian fathers in both groups who indicated that even though they had some knowledge of Finnish or Kven, they did not use the language with the informants. The classroom learners did not reveal that they used Kven with those grandparents either who were speakers of Kven. These families mentioned that the Kven language was not passed on

from generation to generation anymore, a result that was in accordance with the earlier investigations of Kven language use (See for example Aikio & Lindgren 1983; Lindgren 2003 in Lindgren & Eskeland & Norman). The only chance to learn the minority language was to learn Finnish as a school subject. Studies in Kven were not available in their school. All except one of the classroom learners had started Finnish lessons in the first or second grade. Because these informants did not use Finnish outside the classroom to any notable degree, except for some occasional use such as when they visited Finland, they are referenced as *classroom learners* or *L2 learners* in my study.

The language use in the family domain, which is often presented as the most important domain in preservation of bilingualism (see for example Romaine 1989), was different in these two informant groups. There were differences between the bilinguals concerning the pattern of language use at home because some of them used Finnish consequently, but some of them did not. Another difference was the use of Finnish with the siblings. I will compare the results to the language use revealed by the sociolinguistic questionnaire when I present the knowledge of verbs in the language tasks in chapter 8.

All the *bilinguals* (BL) started to use Finnish before school age. This means that even though they learned Finnish also in an educational setting or in a formal context, by the time I collected the material, they had first learned Finnish in an informal context. All of them had started Finnish lessons at school at the age of 7, except one who started at the age of 8. Some of them also used Finnish in Kindergarten. Besides with their mothers, all the bilingual informants used Finnish with their Finnish relatives. Still, only one bilingual indicated that she used Finnish in her contact with local people. These bilingual families seemed to follow the pattern of language use found in the earlier investigations of Norwegian Finnish bilingual families: Finnish was used almost entirely inside the family, either by the near family or near relatives (see Andersson & Hjulstad Junttila 1994), but except in the educational domain, the minority language was not used in other language domains.

The informant groups were also different regarding other areas addressed in the questionnaire, namely, contact with Finnish or Kven speakers in local communities, contact with Finland and the interest, and use of Kven and Finnish media products. The bilingual families got a higher value of all these indicators, which measured not only factual language use and but also interests in the minority issues. So, the only domain of language use where the informant groups were similar was the educational domain: all the informants participated in Finnish lessons for about 3 hours per week.

3. VERBS AND KNOWLEDGE OF LANGUAGE

The first goal of this study was to compare the learning of Finnish verbs by two different groups of pupils. The bilingual group has been learning the Finnish language since childhood in an informal learning context, and they use Finnish more or less outside the classroom, as the sociolinguistic analysis in chapter 2 demonstrates, even though they also use and learn Finnish at school. The sociolinguistic analysis also shows that the classroom learners only use Finnish inside the classroom. Because the context where the two informant groups have learned and where they use Finnish is different, the knowledge of Finnish verbs that they demonstrate in different tasks may also be different. Another basic goal of this work was to find out if there is any correlation between the learning of vocabulary and the learning of verb inflection.

The choice of *usage-based models* as my theoretical frame was connected to two basic questions of my work: 1) How does the environment impact the learning of verbs? and 2) Are there any connections between knowledge of verb vocabulary and verb inflection? In section 3.1., I will explain some basic starting points of the usage-based models of language, which are important to my work. I also will argue that many assumptions of usage-based models are shared with those of *cognitive approaches to language learning*. This is because the basic view of usage-based models is that “the cognitive and psychological processes and principles that govern language are not specific to language, but are in general the same as those that govern other aspects of human cognitive and social behaviour” as expressed by Bybee (2003: 17.) In section 3.2, I will present those concepts used in cognitive language learning theories, which are important to my work. Because knowledge of verbs is the focus, I will discuss in section 3.3 how the knowledge of verbs is connected to the knowledge of language. In the same section, I will discuss why the learning of verbs is assumed to be different from the learning of other parts of speech. In section 3.4., I will explain why I have chosen vocabulary size, frequency, verb semantics and verb inflection as the basic dimensions when I present my material. In section 3.5, I will present my research questions. The two descriptions of Finnish required for the analysis of the empirical material are presented in the pertinent chapters, namely, Pajunen’s classification of Finnish verbs in chapter 6 and a discussion of the structure of Finnish verb morphology in chapter 7.

3.1. Usage-based models and knowledge of language

Usage-based models of language take a functional approach to language: They describe linguistic phenomena using language external explanations. Such an explanation is the use of language in interaction, but cognitive and psychological explanations also are given (Tomasello 1998: ix – xi). According to Kemmers & Barlow (2000), many theoretical approaches can be called usage-based models of language: cognitive linguistics (for example Langacker 2000a & 2000b; Croft & Cruse 2004); Bybee’s schema theory of language (1985,

1994, 2003); and connectionism (McClelland & Rumelhart 1986). Not all these theoretical approaches are basically interested in language learning, but Tomasello, for example, has used cognitive linguistics and usage-based models to explain first language learning (1992; 2003). The competition model of Bates & MacWhinney (1989), which is used to explain first and second language processing and learning, is a usage-based theory.

According to Croft & Cruse, usage-based models were developed especially in phonology and morphology (2004: 4, 291 – 308). Therefore, usage-based models are connected especially to the learning of morphology in my work (chapter 7). I also use studies of Finnish structure (Paunonen 1983 [1976]; 2003) and Finnish acquisition (Laalo 1995, Martin 1995); psycholinguistic studies of Finnish (Hokkanen 2001); and studies of Finnish in a multilingual context (Lindgren 1993, 1998, 1999) in my work, and I try to explain the connections of these studies to usage-based models. When I explain vocabulary learning, I use studies based on language typology (Viberg 1993, 1999). I also use the work of Pajunen (2001), who presents the semantic analysis of Finnish verbs in a context of language typology. I will explain how the works of Viberg and Pajunen are connected to the assumptions made by usage-based models. I compare the semantic classification of Pajunen to the classification of Viberg in chapter 6 to show the many similarities. I use Pajunen's classification in chapter 6 because it is based on an analysis of Finnish verbs, whereas Viberg's classification is based on Swedish verbs. In chapter 5, I use the nuclear verbs presented by Viberg (1993) when I discuss the use of the frequent verbs in the material. Nuclear verbs are supposed to be the same in many languages. The basic hypotheses made by usage-based models that are important in my work will be presented in following overview, and the application of these theories will be explained when I analyze the material.

The usage-based models of language suggest that *knowledge of language*, meaning *mental representations*, emerges from *language use*. This is contrary to the modular theories of language⁵, which assume that knowledge of language is represented in a separate module in the human mind that separates the use of language from the knowledge of language. (Croft & Cruse 2004: 1-4; 291 – 292.) Bybee (2003: 5) pointed out: “It is certainly possible that the way language is used affects the way it is represented cognitively and thus the way it is structured.” My work describes two groups that use language in two different contexts on the basis of sociolinguistic questionnaire. Is it possible to conclude that the use of language in these different environments has an impact on the mastering of the verbs that these groups demonstrated in the language tasks?

Because language use has an influence on language knowledge, frequency is considered an important factor that leads to *cognitive routinization* in usage-based models. *Frequency* means how often a linguistic element occurs in input or output. Frequent elements of language are

⁵ Chomsky's theory, which assumes that there is a distinctive language module in mind, is a modular theory, which assumes that L1 acquisition is an innate ability of children, based on universal grammar. The theory of universal grammar is also used to explain L2 acquisition, though there is not any agreement among the theorists if L2 learners have access to universal grammar or if they have partial access or any access at all (Michell & Myles 1998: 9; Sharwood Smith 1994: 171). Besides universal grammar theory, there are other modular theories of language, for example, lexical functional grammar (Berggreen & Tenfjord 1999: 311).

supposed to be more stable because they are better adapted in memory, and frequency also is supposed to have an impact on the learning process (Kemmer & Barlow 2000: x-xi). In my work, I looked at the verbs that the informant groups used frequently in their productions in chapter 5, and I asked if they had learned the frequent verbs of Finnish. To decide the input frequency, a *Frequency Dictionary of Finnish* (FD) was used. Because this dictionary is based on written material in the first place, this solution was problematic, but no FD of oral language use exists in Finnish. In a classroom, the input frequencies might be quite different from those occurring in natural language use. I will discuss the quality and quantity of input in different learning contexts and if the input frequency has any impact on the output frequency. According to usage-based models, frequency is connected not only to the learning of words but frequency also affects the learning of structural elements in language (Bybee 2003: 5; 13 -14). Therefore, I will discuss how frequency affects the learning of morphology in chapter 7. I ask for example if *type of frequency of verbs* has an impact on the learning of verb inflection, as suggested by Bybee (1985, 1995).

However, besides frequency, other properties of linguistic elements may play a role in language learning. One of these is the use of *prototypes* in categorisation. In such categories, there are more central and more marginal members (Bybee 2003: 26). Prototypes are often connected to vocabulary studies (look at Golden 1998), but categorizing using prototypes is also found in morphology (Bybee & Morder 1983) and in syntax (Taylor 1998). In chapter 5, where I analyze word frequency, I also analyze how the informants used the so-called nuclear verbs presented by Viberg. The nuclear verbs represent prototypical phenomena in vocabulary (Bergreen & Tenfjord 1999: 82). In addition, I also discuss if categorizing using prototypes is to be found in verb inflection in chapter 7.

According to usage-based models, prototypical categorisation demonstrates that human beings use the same kind of categorisation of linguistic elements (including vocabulary and linguistic structures) as they use when they categorise language external objects. "Prototype effects arise not only with respect to the referential possibilities of lexical items, but also with respect to the very categories of linguistic structure itself," as pointed out by Taylor (1998: 197; see also Bybee 2003:33).

Tomasello explained that one basic human skill is that of pattern finding, broadly defined as an ability of categorisation, meaning the ability to form similarities between or among linguistic objects (2003:4.) *Schemas* develop as the result of categorising of elements identified in linguistic input. Langacker (2000a:4) explained that schematization occurs when one abstracts away the differences between or among linguistic entities and finds the commonality that emerges from distinct structures. However, schemas that are abstractions of linguistic structures are still connected to word forms. Schemas can be compared to what traditionally are called rules, but schemas do not develop independently; instead, they are closely connected to the development of vocabulary (Bybee 1988; 2003: 19-27; also see Martin 1995: 50-52).

The definition of schemas means that vocabulary and grammar are not separate; rather, they form a continuum according to usage-based models of language, while according to the

modular theory, regularities of language can be presented as rules, and the vocabulary of language forms a list. In usage-based models, this view is referred to as the *rule/list fallacy*; instead of such a dichotomy, usage-based models suppose that the regularities in language can be more or less schematic: those that are the most schematic can be presented by rules, but there are also many schemas of only limited scope in language (Langacker 2000a: 1-3; look also at Croft & Cruse 2004: 255-256). Comparing my informants' knowledge about vocabulary and inflection was motivated by the assumption made by usage-based models that vocabulary and forms are connected to each other.

In modular theories, for example, according to generative grammar, grammatical knowledge is organized in phonological, syntactic, semantic and eventually also in morphologic components. Each of these components covers a linguistic component of a single type, for example, sound, word structure, and so on. Rules regulate relationships of linguistic elements inside different components, but there are also linking rules that operate between different components. *Rules* are abstractions of a high general level, and all idiosyncratic aspects of grammar are restricted to the lexicon (Croft & Cruse 2004: 225-229).

Usage-based models, on the contrary, present grammar as a complex *network* of linguistic structures at different levels of abstraction. In such a network, a word is connected to other words not only because of meaning but also because of structural similarity (Bybee 1988). Network models, where *paradigm*, meaning a system of inflectional types, is a central concept, are used not only in descriptions of Finnish morphology (Paunonen 1983 [1976]; 2003) but also when the acquisition of Finnish is explained (Martin 1995.) In chapter 7, I will discuss the use of rules and schemas in the description of morphology. I also will argue that Bybee's usage-based model of morphology has many features in common with a description of Finnish morphology called *field morphology* (e.g., Paunonen 1983 [1976]). I will discuss the use of schemas and rules when I analyse the morphological errors of informants. I will also compare the errors of informants with the findings of acquisition studies and psycholinguistic studies of Finnish morphology.

I will use the concept of *construction* when I analyse grammatical structures larger than one word. The concept of constructions was first used in an analysis of idioms and idiosyncratic structural elements of language. Later, a new theory of syntax called Construction grammar was developed (Croft & Cruse 2004: 231, see also Golberg 1995 and Taylor 1998). Construction grammar theory is in accordance with the usage-based view because according to it, syntactic structures also can be categorised using prototypes (Croft & Cruse 2004: 283, Taylor 1998). I use the concept of construction particularly when I analyse how the copula verb *olla* 'to be' is used by the informants in chapter 5. This verb alone does not bear a semantic meaning in a construction, and it can be used in many different constructions in Finnish.⁶ I also use this concept when combinations of two or sometimes even three verbs in the production of the informants are presented. In sections 7.5.8 and 7.5.9, such structures are called *verb string constructions* in my study. Even though I use the concept of construction in

⁶ For a detailed study of the acquisition of *olla*, see Kynsijärvi 2007.

my analysis I do not use the formal notation of the construction grammar approach (see, for example, Goldberg 1995).

I use the concept of *schema* of the knowledge of structural regularity in morphology and the term *construction* of structural regularity of entities longer than one word. When I speak about semantic knowledge of words, I use the concept of *semantic frame*. The environmental and social knowledge of human beings is implanted in language in many different ways. According to usage-based models, it is not possible to distinguish between knowledge of language and knowledge of the world. Words and their meanings are understood in relationship to a conceptual structure or frame, not only in relationship to other words. *Semantic frame* is a configuration of culture-based, conventionalized knowledge that is supposed to be shared in the speech community (Taylor 1995: 81-98). In chapter 6, when I present a semantic analysis of the verbs in the informants' oral and written production, I use the semantic classification of Pajunen (2001). She calls her classification ontological-semantic, and it is based on lexicalised conceptual structures. In chapter 6, I argue that the semantic classes of verbs presented by Pajunen can be understood in relationship to frame semantics in cognitive linguistics, as presented in Croft & Cruse (2004, see also Pajunen 2001: 92).

A consequence of the assumption that language knowledge emerges from language use is the focus on learning in language acquisition. So, usage-based models do not agree with the assumption that language acquisition is the result of innate ability; rather, they suppose that language is learned in the same way as other cognitive skills are learned, that is, in social interactions based on input (Tomasello 1998: xix; 2000: 108-109). This is also the view in the cognitive approach to L2 learning, according to which language is learned in the same way as other cognitive skills. This approach regards language use as important to language learning, and according to it, language use and knowledge of language are not strictly separate (Michell & Myles 1998: 72-74). Still, as I have already pointed out, according to the usage-based models, the representations of language in the human mind emerged from language use, but this does not mean that language knowledge meaning representations in mind and language use are identical entities and that they cannot be separated at all (Croft & Cruse 2004: 291-292). It is possible to conclude that the cognitive approach to L2 learning shares some basic suppositions with usage-based theories. In the next chapter, I will explain how language learning occurs on the basis of input according to cognitive language learning theories.

Production data are the primary object of linguistic study, according to usage-based models (Kemmer & Barlow 2000: xv). In my study, production data were the tasks carried out by the informants. When I speak about knowledge of verbs, I refer to the mastering of the verbs in the language tasks. Knowledge does not directly reveal how the verbs are represented in the memories of the informants or how the informants process the verbs in their mind, but the knowledge is analysed from the products of the informants in the specific language tasks in this study. I call this knowledge *verb proficiency*. It is only indirectly possible to make inferences about the informants' mental representations or processes on the basis of the language use in the tasks. Therefore, the main focus of this study was to compare the products

of the two informant groups as well as the verb proficiencies in the different language tasks on the basis of these products, not to describe the mental representations or processes. When comparing the production of the learners in different learning contexts, the characteristics of verbs that make them easy or difficult to learn were the focus. However, errors in language production can be used as the source of evidence for mental processes and representations (Hokkanen 2001:14). When it was possible for me to draw an inference of the informants' mental inflectional learning processes from their errors, I will comment on these processes.

3.2. Learning on basis of input

In the cognitive approach to language learning, forming hypotheses is one of the basic processes (Berggreen & Tenfjord 1999: 297). According to Gass, when the learners receive *input*, they receive *positive evidence* of the linguistic characteristics of the target language. Positive evidence forms the basis for *linguistic hypotheses*. So, the possibility of obtaining input is important for language learning, but language is learned not only on the basis of input; rather, *interaction* seems to be as crucial as input. Interaction studies of L2 learners have demonstrated that interactions between language learners and native speakers, as well as between language learners, is not only an exercise of skills that the learners already have acquired but it also means that automatization of the production increases and even that new learning will happen. This is because conversational interactions offer possibilities for testing the hypotheses that the learners have made on the basis of the input they have received and also because such interactions mean the possibility of obtaining negative evidence (Gass: 2003: 225; 240-241). Recently, it has also been shown that repetition in interaction has an important role in the acquisition of, for example, Finnish morphology (Suni 2008).

Negative evidence means that the learner gets feedback to expressions that are deviant in the target language. Negative evidence may be direct or indirect: Direct evidence is a direct verbal reaction to a deviant production, and indirect negative evidence means that the correct form was given by the interlocutor or that communication broke down. In language classrooms, direct negative evidence (correction) is used, but it seems not to be common in informal learning, either in L1 or L2 learning. So, negative evidence seems to be a difference in dissimilar learning contexts (Gass 1990).

The importance of negative evidence for language learning is an issue that has had important theoretical consequences. Because children seldom seem to receive negative evidence, the modular theory of language suggests that language acquisition is based on innate learning capacity (Gass 2003: 226). However, Gass (2003: 247) suggested that negative evidence ought to be connected to conversational interactions, where children often get indirect negative evidence, which occurs in contrast to the error that has occurred and seems to affect learning.

Gass (1997: 1-2) divided language acquisition research of both first and second language into two positions: researchers who takes the innate position and those who focus on the interaction. According to the latter position, language learning cannot be understood without

taking into account social interactions and the context where language is used, which was the view of the present study. The social interactionist perspective described by Gass resembles the position in usage-based models. Tomasello (1999: 96-118) described children's language learning as a process of cultural learning where children's understanding of adults' communicative intentions is one basic process. Language is learned when children and adults participate in joint attentional scenes, that is, in a world where social activities are structured so that they can be understood.

Not all input causes learning. Input that is appropriated is called *intake*, which Gass defined as "apperceived input that has been further processed" (1997: 23). Gass mentioned several factors influencing what is noticed from input, for example, elements that are *frequent* or *salient*. In section 3.1., I discussed how frequency affects language learning. The elements of input that are easy to perceive by language learners are *perceptually salient* (op.cit.16 – 23; see also Berggreen & Tenfjord 1999: 94-96).

Slobin's operating principles (1979) are examples of how perceptual saliency is supposed to affect children's language acquisition. These principles were modified to explain second language learning by Andersen (1990; 1993). In chapter 7, I will discuss this "perceptual saliency approach" to cognitive language learning (see Michell & Myles 1998:74-77) when I explain the learning of Finnish morphology.

According to Ellis, *formulas*, or unanalysed speech and ready-made phrases like "I don't know," which are often learned at the beginning of both L1 and L2 learning, are probably learned as reactions to high-frequency patterns in the input and are used to fulfil a communicative function (Ellis, R. 1994: 272-273, 703). Creative language is supposed to develop out of formulaic speech (Ellis, N 2003: 74; Tomasello 2003: 305).

Language acquisition is compared to *skill learning* in the framework of cognitive learning. In skill learning, automaticity is an important part of learning (Segalowitz 2003: 394). An *automatic process* is different from a *controlled process* because an automatic process does not need attention, but a controlled process does, even though both processes may interact in language processing (Berggreen & Tenfjord 1999: 109).

Language knowledge may be *declarative knowledge* (knowing what) or *procedural knowledge* (knowing how). In language classrooms, learners often receive declarative knowledge of the goal language, and one may ask if and how such knowledge can be transformed into procedural knowledge. Knowledge of the mother tongue is, for the most part, procedural knowledge (Bybee 2003: 8), although people often achieve some declarative knowledge of their mother tongue through education, as pointed out by Hulstijn (2002:205). According to Hulstijn, metalinguistic knowledge is a kind of declarative knowledge. In L2 learning, fluency in the target language is connected to procedural knowledge (Berggreen & Tenfjord 1999: 110). However, Segalowitz (2003: 403) pointed out that fluency demands that the automatised and controlled processes work together, especially if automatised is understood not only as a synonym for fast production. How automatised cooperates with attention management is still an open question. Prefabricated chunks or formulas that are

stored in memory are important at the beginning of language learning because they function as a database for the mastery of grammatical regularities.

Errors occur in all language production, that is, adult native production as well as in the production of language learners, although it is common to recognize differences in errors made by mature native language users and those made by learners. In the first case, errors are called slips of the tongue, and they are thought to be a phenomenon in language use, whereas errors made by language learners are thought to occur because of shortcomings in language knowledge (Hokkanen 2001: 34). Still, morphological errors made by adults and language learners may not necessarily be inherently and qualitatively different (Martin 1995: 38). Can the errors of my informants be classified as errors of knowledge or as slips of the tongue? This question is discussed when I analyse the errors of my informants.

In SLA tradition, errors have played an important role ever since the beginning of this research tradition. One central issue has been the source of errors. At the beginning of SLA research, in the contrastive analysis approach, the native language was identified as the source of the errors (Lado 1957), but this view was later compensated by a more versatile view about sources of errors in the learner language (Berggreen & Tenfjord 1999: 46-57). In addition to *transfer errors* or errors caused by the native language, errors in the learner language are often *intralingual errors*, or errors where the source is the goal language. The last type of errors is the most frequent in learner language, according to most researchers, as Ellis remarked. However, he meant that it is not always easy to identify the source of errors in the learner language because there may be more than one source (Ellis, R. 1994: 59-63). In addition, the attitude toward errors has changed since the beginning of SLA research, so instead of looking at errors as deviant forms of the goal language that disappear when new habits are created, they are considered part of the creative learning process. Particularly in the cognitive approach to language learning, errors can reveal how learners solve problems when meeting goal language input (Ellis, R. 1994: 351-352; Pica 2005: 277). Whether the errors of my informants are intralinguistic errors or if they are transfer errors will be discussed when I present the examples. Because transfer errors in both groups must be transfer errors from Norwegian, the assumption is that such errors did not make a difference between the informant groups.

It is not always easy to define an error because different norms describe the correct use of language. Which norm should I follow? Norms for standard language are different from norms for oral varieties (Ellis, R. 1994: 51). I accepted oral forms that were different from standard language as the correct use of Finnish. In cases of doubt, I tried to get help from other Finnish mother tongue speakers, or even from the Internet. Still, my analysis of errors was based on my intuition about the correct forms of Finnish in the first place.

I will comment on the semantic errors and the formal errors of my informants. The informants and the informant groups are compared to each other concerning the types of errors that they made. In chapter 7, the formal errors made by the informants are compiled by task. When I present the verb proficiency profiles of the informants, these errors are compared with the informants' vocabulary knowledge.

3.3. Verbs as part of language knowledge

Knowledge of verbs was the focus of the present study. Verbs are central to the structure of language for many obvious reasons. Without verbs, there is no syntax. Actually, the characteristics of verbs determine many syntactic features, for example, how many and which kind of arguments are in a sentence. Therefore, it seems that the number of verbs in the learner's language is connected to the mastery of syntax and language proficiency (Sharwood Smith 1994: 138; Gass & Selinker 1994: 274-276). This is because the verbs and their arguments form the basic constructions of language, such as basic sentence types (see Goldberg 1995).

The number of verb lexemes is related not only to syntactic knowledge but also to inflectional knowledge. When vocabulary increases, different paradigms of words start to be separated. Finnish words in particular have many allomorphs connected to each other in a complicated way, so without having a large vocabulary, it is not possible to master all these forms (Paunonen 1983 [1976]; Niemi & Laine 1994). One may conclude that the size of verb vocabulary and language proficiency certainly must correlate in some way.

Because verbs are connected to syntax in a complicated way, the acquisition of verbs seems to be more difficult compared to the acquisition of nouns (Aitchison 1994: 102). There also are other traits of verbs that complicate the acquisition process and which have their basis in the semantic characteristics of verbs that make them different from nouns and adjectives.

Nouns are more salient than verbs and adjectives. This is connected to the perceptual saliency of the referents of concrete nouns in comparison to verbs and adjectives. The physical objects that are the referents of concrete nouns are perceptually easier to locate than are the referents of events and properties. Physical objects can be isolated in their physical environments, they can be physically manipulated, and they persist through time. Conversely, verb referents are more difficult to handle cognitively than are objects: They cannot be manipulated physically, they cannot be isolated in their environments, and they are not stable (Dietrich 1990: 13; Itkonen, E. 1996: 278, Croft 1998: 67-68).

The perceptual difference between concrete nouns and verbs can be seen in language acquisition. When children are learning their mother tongue, they learn nouns first, followed by verbs. During the single-word period, nouns dominate in child language, but the number of verbs increases in two-word and multiword speech. In informal learning of a second language by adults, the same order of noun and verb acquisition has been recognised. Verbs seem to be more difficult to process. In general, verbs seem to be more complicated to handle cognitively than concrete nouns (Aitchison 1994: 102; Viberg 1993: 352; Källqvist 1998: 149-150). Verbs, then, are learned later than nouns, and adjectives seem to be learned even later than verbs (Viberg 1993: 378).

According to Viberg, the increase of the relative number of verbs in learner language correlates to a developmental pattern in language acquisition, but the increase in the number of nouns does not. This is because the increase in the number of verbs and function words is

related to the acquisition of syntax. This situation disproves the traditional division of words into content and function words (1993: 352). For example, complex sentences, including more than one clause, in children's language develop only after verbs getting sentence arguments are acquired (Lieko 1992).

Thus, verbs seem to be complicated to learn because of their semantic and formal characteristics. As usage-based theories suggest, formal characteristics, in the same way as semantic characteristics, are seen to be a part of the lexicon because the approach assumes no discrete division between lexicon and grammar (Langacker 2000a). Thus, the learning of forms is always connected to the learning of lexical items. In the next section, I will discuss the connection between the size and the organisation of the lexicon.

3.4. Dimensions of lexical knowledge – size and organization

Meara (1996: 37) argued that there are two important components of lexical knowledge. One of these is the size of vocabulary, and the other is the organisation of vocabulary. Vocabulary size generally indicates language proficiency: Those with a large vocabulary are more proficient in language in comparison to those with a small vocabulary.

However, Meara pointed out that vocabulary size is not the only factor to indicate good language proficiency: The organisation of vocabulary also matters.

Meara (1996) discussed the tradition of “what it means to know a word” (45). This tradition goes back to Richards (1976), who presented seven aspects of word knowledge:

- 1) knowing the degree of probability of encountering the word in speech or print;
- 2) knowing the limitations imposed on the use of the word according to function and situation;
- 3) knowing the syntactic behaviour associated with the word;
- 4) knowing the underlying form of a word and the derivations that can be made of it;
- 5) knowing the association between the word and other words in the language;
- 6) knowing the semantic value of the word;
- 7) knowing many of the different meanings associated with the word. (Richards 1976, here presented according to Meara 1996: 46)

According to Meara, other definitions presented later on are based on Richards' definitions (look at Nation 1990). In Finnish, for example, Puro (1999) and (2002) presented dimensions of word knowledge based on Richards (1976) and others, such as Nation (1990) and Ringbom (1990).

Word knowledge is defined as an attempt to gather all information that a fluent speaker might have when he knows a single word (Meara 1996: 46). Still, neither mother tongue speakers nor L2 learners have complete knowledge of words because a single word may have many meanings or metaphorical extensions (Croft & Cruse 2004). A word may also have special

uses that are known only by experts (Putnam 1997: 372 [1975]). Even native speakers are not always conscious about the derivational relationships among words (Räisänen 1978). An important area of knowledge is also the inflectional knowledge of words, not mentioned in the list above, certainly because such knowledge is less important in English, compared with languages with extensive morphology like Finnish. However, Meara concluded that an analysis that tries to construct measures to assess all of a word's meanings in the mind of a person using the criteria of word knowledge, as presented by Richards (1976), must end up saying more and more about fewer and fewer words. A framework based on word knowledge concentrates too much on the knowledge of individual words (1996: 46).

Instead of a framework based on individual words, Meara suggested a framework based on lexicons. Individual words form networks in a lexicon. What are the differences between these connections concerning the lexicons of native speakers and second language learners? Meara suggested that one basic difference is that L2 lexicons, besides being smaller, also have fewer shared associations among individual words than L1 lexicons (1996: 49).

I agree with Meara, so I did not present knowledge of individual verbs in my work. Instead, I presented three dimensions of lexical organization in my project: frequency; semantic organization; and verb conjugation, or the formal organisation of verbs. These dimensions are well-documented characteristics of lexicons based on linguistic research. Still, it is not clear how these three dimensions are linked. Therefore, I tried to show the connection of these three organizational dimensions in the lexicons of my informants, and I also compared the organizational dimensions to vocabulary size. So, the two basic dimensions of lexicon, according to Meara (1996), namely, organization and size, were the two pillars of my work.

L2 research often has concentrated on the lexicons of L2 learners at the beginning of their language studies, when their lexicons are still quite small. Such lexicons may have characteristics not shared by larger lexicons (Meara 1996: 50). I compared the lexicons of the classroom learners with the lexicons of bilinguals to identify similarities and differences in the organization and size of their lexicons.

3.5. Finnish verbs as learning target - research questions

Finnish is a language with an extensive morphology. Because the learning of Finnish morphology is often seen as complicated, it has taken a major role in teaching programs and textbooks of Finnish, perhaps at the cost of vocabulary. The learning of morphology also has been a central issue in Finnish acquisition studies (see section 1.2.). Because Finnish belongs to a language family different from most European languages, the vocabulary also represents a demanding learning task for many learners. It is often not possible to guess words as easily as one can between languages that are related to each other.

Simensen commented that for L2 learners, a lack of a large vocabulary is often the major problem in using the language (Simensen 1998: 227). Simensen cited Wilkins' assertion that "the fact is that while without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (1972: 111). My initial intention was to collect material only on the

inflection of verbs from students learning Finnish in Norwegian schools, but after a short pilot project, I decided to include the learning of vocabulary in my project because I noticed that not only forms but also vocabulary caused problems for learners. Thus, an investigation into both verb vocabulary and verb conjugation became the goal of this study. In chapters 5, 6, and 7, I will present my empirical material, namely, the production of the informants in the different language tasks. My main research questions were the following: How are verbs learned in terms of frequency, semantic class, and conjugation in the two informant groups? What are the qualities of the verbs that display differences between the informant groups?

It was reasonable to assume that the amount of input and interaction was different in informal and formal contexts. Because of that, I also asked if the differences between the informant groups concerning how they learned Finnish verbs were related to differences in the amount of input and the frequency of interactions.

Chapter 8 explains the results from the empirical chapters. In this chapter, I try to demonstrate how the different dimensions of verbs are connected to each other when the learning of verbs is discussed, and if there is a connection between verb vocabulary size and the different ways in which the verbs are organized in the learners' lexicon. I assumed that the vocabulary size and the mastering of conjugation develop hand in hand, as Bybee's (2003) schema network model suggested. Is there any connection, and if there is, what are the implications of the theoretical consequences?

In chapter 2, the informants' contacts with the Finnish language and their language choice both inside and outside the family were presented. In chapter 8, I will ask if there is a correlation between the findings revealed by the sociolinguistic questionnaire and the informants' verb proficiency profiles. In this chapter, I will ask not only if the amount of input of an individual informant influences how the informant masters Finnish verbs but also how the interaction influences language proficiency, because interaction is connected to language use. I also will investigate if there is a connection between the informants' own estimation of their proficiency in Finnish and their verb proficiency profiles. I will ask if it is possible to conclude anything about more general language proficiency in Finnish on the basis of verb proficiency profiles and if the verb proficiency profiles indicate anything about the ability of the informants to communicate in Finnish.

4. METHODS OF STUDY

Today, the focus of L2 teaching methods is to develop communicative competence. The focus has changed from structure to function, and the ability to use language in an appropriate way in a given context is seen to be the most important goal. Similar to language teaching, the focus of language proficiency has changed from evaluating separate language skills to evaluating global language proficiency. Instead of testing isolated language skills or selected components of the language using discrete-point testing, one measures several language skills at the same time using integrative testing (Simensen 1998: 266-267). For example, the criteria that the Common European Framework uses to evaluate language competence on the six different levels (A1, A2, B1, B2, C1, C2) describe proficiency in speaking, communicating, writing, and reading. Language proficiency is described as the capacity to communicate in all these separate areas of language use (Common European Framework 2001).

In this study, however, the focus was on a separate area of language proficiency: verbs. The theoretical goal of the study was to find a correlation between verb vocabulary and verb inflection. Another goal was to compare the informants who learned Finnish in different contexts and to find out how input and interactions affect language learning. A global evaluation of language may not produce information that is detailed enough and which is possible to be handled in one project at the same time. I suppose that a study of verbs in the learner language will provide important information that can be used in a more global evaluation of language proficiency, even for practical goals, because verbs have a central role in language proficiency.

In the following sections, the method used in the study is presented. In section 4.1., I present the principle of *triangulation*; in sections 4.2. to 4.5., the *language tasks*; and in section 4.6, the *self-evaluation task* accomplished by the informants. I will present each task and explain why it was used in the study. In section 4.7, I will explain how and in which order the tasks were completed, I will present the principles used to analyze the material in present study, and I will describe how the transcription of the oral material was done.

4.1. Triangulation

Triangulation is a multidimensional approach to analyzing the data. The data are elucidated using different methods, theories, or observers, or different data sources are combined to explain to some object of research. It is usual to divide triangulation into four types: 1) methods triangulation, where, for example, both qualitative and quantitative approaches are combined in analyses; 2) analyst triangulation, where multiple, not single, observers or analysts are used; 3) triangulation of sources, where different kinds of data are collected and analyzed to illuminate various aspects of a phenomenon; and 4) theory or perspective

triangulation, where data are interpreted using multiple perspectives or theories (Patton 2002: 555 – 563).

Triangulation of sources was the method used in the study because many different types of tasks were used to illuminate the knowledge of verbs of the informants. The informants completed oral and written tasks that included production tasks and elicited tasks. Production tasks were both oral (interview and comic strips) and written (essays). Still, the language use in the oral tasks was not “authentic” communication because the data were gathered using pictures and a questionnaire. So, in a way, these tasks were “elicited tasks” because they were not recordings of authentic use of language (see Ellis, R. 1994: 671-672). However, these tasks represented a different type of elicited tasks compared to the grammatical tasks (multiple-choice tasks and oral inflection) and a lexical task (verb identification). Besides the language tasks, a self-evaluation questionnaire and a sociolinguistic questionnaire were used to collect data about the informants. The latter were already presented in chapter 2.

Triangulation using different sources was connected to the research questions of the study. It was only possible to answer the question about correlation between the verb vocabulary size and inflection using tasks that revealed enough knowledge of these dimensions. Another research question asked how learning context affected the knowledge of verbs. The sociolinguistic questionnaire was used to confirm that the informant groups were different in their language choice and contacts. *Triangulation of perspectives*, a multiple insight in the knowledge of verbs, was caught using different theoretical perspectives, when the data were analyzed according to frequency, semantics, and morphological organization of verbs. This knowledge was used to create verb proficiency profiles of the informants. These profiles were then compared to the information from the sociolinguistic and self-evaluation questionnaires.

Triangulation allows the researcher to check the findings against other sources or theoretical perspectives, thus increasing the validity of the results (Patton 2002:555- 563; Hirsjärvi & Remes & Sajavaara 2005: 218). Besides organization and size presented in section 3.4, the distinction between active-productive and passive-receptive vocabulary knowledge also has been important in studies of vocabulary acquisition (Ringbom 1990: 143). Even if this distinction was not a basic focus in my work, it was taken care of by using different types of tasks. Figure 4.1 describes the tasks concerning this dichotomy, and the goal also was to compare how the informants used verbs in receptive and productive tasks.

Productive tasks: using a verb form			Receptive tasks: identifying a verb form	
Oral production Sections 5.2 to 5.4, 6.2. to 6.5 and 7.5	Written production Sections 5.2 to 5.4, 6.2. to 6.5 and 7.5	Oral inflection task Section 7.3.	Multiple-choice task Section 7.4.	Verb identification task Sections 5.5. & 7.2.

Figure 4.1. Productive - receptive -dichotomy and the language tasks in study.

4.2. Lexical task: Verb identification task

The verb identification task was a list of verbs (Appendix 3). There were 46 Finnish verbs and 6 nonsense verbs in this task. The list included following forms of all verbs: 1st-infinitive form⁷, 1st-person singular form, 3rd-person singular form, and negative 3rd-person plural form. All the personal forms were in the indicative present tense. Because 8 of the verbs had similar 1st-infinitive and 3rd-person singular forms, there were 200 verb forms in the task.

The verbs on the list were mixed, and the informants had to decide if the verb form was a Finnish verb, or not, writing *ja* 'yes' or *nei* 'no' beside the verb form on the list. The verb identification task was a modified version of the verb identification task of Meara (1996). He used his version to identify the vocabulary size of the informants. His lists included nonsense words and real English words; the real words were organized according to rank intervals, and the aim of his list was to find out if the language learners could identify the words belonging, for example, to rank interval 1 - 1000 in English. His goal was to find out how large the language learners' vocabularies were.

The verb identification task was a lexical task to identify which verbs belonged to the receptive vocabulary of the pupils. The task revealed the vocabulary size of the informants; the results of this task are compared to the vocabulary size of the informants in the oral tasks in section 5.5. Another aim of the verb identification task was to find out if the informants were more capable of identifying some of the verb forms than other verbs forms in the task. If they were, which forms did they identify the most often? The results of how the informants identified the different verb forms are presented in section 7.2. The verb identification tasks also were used when the other tasks were analyzed to reveal if the informants were better at finding or producing the correct forms in the multiple-choice task and in the oral identification task of the verbs they had chosen as correct Finnish verbs in the verb identification task.

4.3. Grammar tasks: Oral inflection task and written multiple-choice task

The grammar in the oral and written production of the pupils was analysed. Along with that, the informants also participated in two elicited grammar tasks. The first of these was an oral inflection task (Appendix 4), which was a dialogue about Norwegian schoolchildren who visited a Finnish school in Rovaniemi. The dialogue consisted of the lines of the Norwegian and Finnish pupils. The informants got the dictionary form of the verb, which is the first infinitive form in Finnish, and their task was to conjugate this verb correctly. The informants were asked to read the text in the test situation and fill in the correct form of the verb orally.

I chose an oral inflection task because I wanted to avoid problems with orthography. It is quite common for bilinguals as well as others who are learning Finnish to have problems

⁷ Many infinitive forms of verbs can be found in Finnish. So called 1st infinitive is one of them; this form is also the dictionary form of verb in Finnish. (See Karlsson 1999: 183 – 184.)

mastering the writing of long and short consonants and vowels in Finnish. This may, of course, reflect their problems with Finnish pronunciation, but very often, especially in the case of bilinguals, they can correctly produce Finnish orally, but they make errors in the orthography. To ensure that the task really was about mastering verb inflection, not mastering orthography, I made this an oral task with the informants.

The multiple-choice task was another elicited grammar task (Appendix 5). It was in written form, and the pupils completed it in the classroom under the guidance of the teacher. The multiple-choice task was a text about a father who tries to get his two children to eat. The task text included both narrative and dialogue.

Both these tasks were completed because using them made it possible to expose a manifold data of inflectional forms of Finnish verbs. Elicited tasks provided an opportunity to identify which verb forms and verb stems the informants actually were able to produce more systematically, when compared to the verbs collected in free production. If the data had been collected only from the free production of the informants, the verb forms produced may have been random because such material often does not include uncommon forms. In production, it is also possible to avoid forms one is not able to produce (See Rod Ellis 1994: 304 – 305). So, the elicited tasks provided an opportunity to obtain many different forms and the same forms from all the informants. By using them, it was possible to dispose of the problem of avoidance.

The actual verb forms in the oral inflection task and the multiple-choice task are presented more precisely in chapter 7.

4.4. Writing tasks: Two essays

The two essays that the informants wrote were *One Fine Day* and *The School in Future*. A short introductory text was used to present these tasks to the informants, and they were informed that the use of a dictionary was accepted (see appendices 6). The first essay, *One Fine Day*, was not a demanding task to write about. Besides narration, description could have been another way to write about this subject. My aim was also to find a theme that could be written about by both groups. The first essay may have been too easy to write about for Finnish mother tongue students of the same age as my informants, but the bilingual students in Norway had much less experience than the monolingual students in Finland writing in Finnish.

The second essay, *The School in Future*, may have been a more demanding subject to write about. A description could have been the result of writing about this subject, but it also resulted in comparing the schools of today with those of the future; therefore, an argumentative style may be used.

The pupils were allowed to use dictionaries when they wrote these essays. This is because they normally use dictionaries and the essays were written during an ordinary lesson under the guidance of the teacher. All verb lexemes and verb forms were collected in the essays,

although I did not collect the forms of the 2nd infinitive when they were used in fixed expressions (look at Karlsson 1999: 188).

I will also comment on how understandable the texts that the informants produced were in chapter 8 when I present the verb proficiency profiles.

4.5. Oral tasks: Two comic strips and interview

The oral tasks included two comic strips and a structured interview. The comic strips presented two everyday situations in a family of three: mother, father, and daughter. There were six pictures in both comic strips. In the first comic strip, the pictures showed the family buying shoes for the daughter; the second comic strip described a conflict in the same family (look at Appendix 7).

The first task for the informants was to describe what happened in the comic strips. The pictures included empty speech bubbles, and the second task was to identify the lines of the comic strip figures. The goal of this task was to see if the informants could produce the lines that were the most natural to use in these everyday communication situations. The lines of the figures may have included the use of common phrases; in addition, the figures had to make appointments, and they had to argue in support of their points of view in both comic strips. In this task, it was assumed that the situations in the pictures would elicit the verbs that the informants would use. As in the grammar tasks, the expected result was that the informants would use the same verbs quite often. As the informants were asked to find the lines of the comic figures, other personal forms besides the most common form (3rd-person singular) was expected to be produced in this task.

The interview included questions about the informants, their families, their daily activities and schedules, and their hobbies and interests. I used a questionnaire (see Appendix 8), but the discussion was still quite free. Verb lexemes and all the same forms of verbs as in the essays were collected from the oral tasks. The production of the informants in the essays and in the oral tasks is compared in all the empirical chapters. This is because written and oral production is supposed to be different concerning language production, because explicit or metalinguistic knowledge can be used in situations without the time pressure (Hulstijn 2002: 210). I also compare the verb inflection in the elicited tasks and in oral and written production to reveal differences resulting from these tasks.

4.6. Self-evaluation task

The informants answered a questionnaire in which they had to evaluate their ability to use Finnish in different kinds of situations (see Appendix 9). Many of these situations may have been unfamiliar, especially for the classroom learners, yet many of them were realistic situations, especially for the bilinguals. The questionnaire included oral language use situations, communication situations and oral presentations, and situations where the

informants read in Finnish or listened to the radio or watched TV. The estimations that were used are presented in section 8.2.5..

In addition, the Common European Framework's self-evaluation as part of the methodology, the so-called *I can* sentences, resembled the self-evaluation sentences in my questionnaire. The language use situations described in the questionnaire demanded an ability to use Finnish on different levels. Some of the language use situations in the questionnaire were easy. For example, self-evaluation statements like *I can tell about myself* or *I can tell about my family* belonged to the A1 level (lowest level) of the Common European Framework. Of course, you can tell about yourself and about your family on different levels, but usually, everybody has already learned to say something about these subjects at the beginner's level. Some of the situations described in the questionnaire demanded a relatively high level of language ability, for example, *If I were a witness to a raid in Finland, I could be able to explain what happened to the police* (look at Common European Framework 2001).

The informants graded their ability to use Finnish in these situations. The results of the questionnaire are presented in section 8.1.5. The results of the self-evaluation were then compared to the verb proficiency profiles of the informants.

4.7. Practical realization of material collection and treatment of material

The informants completed the written elicited tasks in the following order: 1) the verb identification task, and 2) the multiple-choice task. This was because the verb identification task was meant to reveal the receptive verb vocabulary of the informants and to control the possibility that the informants knew the vocabulary used in the other tasks. Therefore, it was important that the informants completed this task first; otherwise, the other tasks could have influenced the results of this task.

The written tasks (i.e., the verb identification task and the multiple-choice task) were done under the guidance of the teacher, as were the essays. The oral material was collected late in the spring term 2000. I conducted the interviews with the informants at their schools. All the oral tasks (comic strips tasks, oral inflection task, and interview task) were completed one after another in the order mentioned. This was for practical reasons: Distances in Northern Norway are huge, and I was able to visit the schools only once.

The oral recorded material was about 7 hours long, and it was transcribed into about 190 pages of text. This transcription included the comic strip tasks and the interview task, and all the lines of the interviewer and the interviewees. The informants' answers in the oral inflection tasks also were transcribed. When I transcribed the oral material, I did not use a phonetic transcription; instead, I followed Finnish orthography because morphology and vocabulary were the main interests of the study. When the informants used Norwegian, I transcribed it using Norwegian orthography. Overlapping speech is not marked in the transcription; pauses and hesitation are marked using symbols that are explained in the list of symbols and abbreviations.

It is not easy to transcribe the oral production of second language learners. A reliability test of the transcriptions was done in some cases to secure the correct transcription. However, no reliability test was completed of the transcription in this study for the following reasons: The oral material was not the only material in the present study. In addition, only one part of speech, verb forms, was investigated. Most often, Finnish verb forms are not difficult to analyze. The only difficulty could be in hearing the long versus short vowel or consonant in verb stems and in combinations of stem vowels and personal endings. A long vowel, especially at the end of the verb, is perhaps difficult to hear in some cases. The long vowel in this position will mark the 3rd-person singular, for example, *minä laula/n* 'I sing' but *hän laula/a* 'he/she sings.' Because the difference between short and long is phonemic in Finnish, it is easy to cover for a Finnish mother tongue speaker. I also have over 20 years of experience with Norwegian learners of Finnish, so I am familiar with the errors they make.

Another problem in analyzing the production of second language learners is that the forms and meanings found often deviate from forms and meanings in the goal language. How does one classify such forms? My goal was to compare the production of classroom learners to the production of bilinguals, so it was important for me to be able to classify their production using the same criteria. In the present study, the classification was done on the basis of the function that a word; its form; or meaning, a morpheme or a construction, has in production. For example, when the informant used the verb *maalata* 'to paint' as meaning *kehrätä* 'to purr,' which is a transfer error from Norwegian, the verb was classified as a verb expressing a sound of an animal, which is the function of this verb in the informant's production, and not as a verb of action, as it is in Finnish. In the same way, when the informant used the transitive verb *soittaa* 'to ring' as an intransitive verb *soida* 'ring,' I classified this verb as an intransitive rather than a transitive verb. Such deviant uses are marked using a question mark in the tables that categorized the verbs in different semantic frames in chapter 6.

The same principle was also used concerning deviant use of morphemes and constructions in chapter 7. For example, when I analyzed the use of personal forms in the two informant groups, the forms that were compared include both correct and deviant personal endings because the personal pronoun identifies the function of the verb form, even if the personal ending is not correct. Also, in analyses of constructions including combinations of more than one word, the analyses were based on the function of a construction. For example, the construction *Isä on kirja*, 'Father is a book,' has a meaning that does not make sense, but which is not uncommon at the beginning of Finnish studies. It is classified then according to its function: *Isällä on kirja*, 'Father has a book.'

There are two considerations connected to the reliability of the study. One of these is the question of what should be counted as verbs in the informants' repertoire; the second is the question of what should be counted as errors. In the oral production tasks, it was not always easy to decide which verbs belonged to the production of the informants. A conversation is created by both of the interlocutors, and one single expression might be started by one but completed by another interlocutor (Tomasello 1999: 147). Repetitions of the linguistic

elements that occurred in the lines of the interlocutors were usual in the present material, as were also discovered in other materials (see Suni 2008). When the informants seemed to pick up verbs from my lines, my solution was to make sure that they also used the same verbs in their own expressions, which were different from mine. Another problem was to decide which deviants of goal language norm were considered linguistic errors, and which were not. This question was already discussed in section 3.2. When I present the material, I will include examples of such considerations.

5. VERBAL VOCABULARY SIZE AND FREQUENCY EFFECTS ON KNOWLEDGE OF VERBS

5.1. Frequency of verbs and language learning

Input frequency is one factor that is supposed to affect learning. High-frequency words are more easily accessed and remembered than low-frequency words are (e.g., Bybee 2003: 5). There are fewer errors made in high-frequency words than low-frequency words; therefore, high-frequency words are psycholinguistically more stable (Hokkanen 2001:194). Not only the frequency of words but also the frequencies of other elements in language are thought to affect learning. Frequency is supposed to have an impact on mental representations and, later on, language structure in usage-based theories of language. This view is quite the opposite to the view of the role of frequency in many other theories of language, especially modular theories. Theories that deny that mental representations have any connections with language use also deny that frequency has any effect on mental representations (Bybee 2003: 5, 13-14).

Still, frequency is not the only factor to facilitate word learning. Many function words as well as many verbs often are more frequent than nouns are, but children seem still to learn nouns before verbs (Tomasello 2003: 46, 79). Concrete nouns in particular seem to be learned before verbs because they are more salient perceptually (look at chapter 2.2).

In Finnish, as well as other languages, there are more verbs among the 100 most frequent words than any other part of speech. According to *A Frequency Dictionary of Finnish (FD)*, there are 25 lexical verbs, but only 15 nouns, among the 100 most frequent words. These frequent verbs either express basic human functions, motion, and the perception of psychic events, or they are auxiliary verbs (Saukkonen 1979: 27).

The most frequent verbs belong to the basic vocabulary of language. These verbs often are general in meaning, and they can be used in many contexts. A general tendency is that the more frequent the word is, the more possibilities there are to use it (Slobin 1997: 303). For example, the Finnish verb *ottaa*, 'to take,' has the most meanings of all Finnish words (Niemikorpi 1991: 346). This verb belongs to the 100 most frequent verbs in Finnish.

Because the frequent verbs are short and there are few restrictions in their use, children seem to use these basic verbs early (Slobin 1997: 304). Frequent verbs also seem to be learned early in informal L2 acquisition (Viberg 1993: 371). Still, Tomasello (2003: 122) pointed out that 'heavy,' not only light, or frequent, ones, are learned early by children. Verbs that are frequently and saliently used in communication with children are learned before other verbs.

Viberg (1993) analysed the basic, or light, verbs using typology studies of verbs. When he compared the most frequent words in several European languages, he found out that concerning their basic meaning, these frequent elements carry striking similarities across the languages. Viberg saw the frequent verbs in particular as having similar basic meanings in several languages. According to his findings, there are so-called nuclear verbs that one can find not only in European languages but also in other languages around the world. These

kinds of typologically unmarked lexical terms tend to form a subset of basic words in all languages (Viberg 1993: 347-348).

The basic meanings of nuclear verbs are BE, CAN, GIVE, TAKE, SAY, SEE, GO, MAKE, COME, WANT, KNOW, MUST, and HAVE (Viberg 1993: 346). Verbs with these meanings, except the last one, which does not exist in Finnish, are all frequent verbs in Finnish; most of them belong to the 100 most frequent verbs in Finnish, according to the *FD*.

The nuclear verbs cover such basic semantic fields as production, perception, motion, verbal communication, possession, cognition, and desire (Viberg 1993: 346). In chapter 6, I will discuss in more depth the concept of semantic field as well as the concepts semantic field and semantic frame. These nuclear verbs have many common properties: They are frequent, they are short, they have irregular inflection, and they are polysemantic. These are features that are characteristic of typologically unmarked lexical items more generally (Viberg 1993: 350).

The nuclear verbs identified by Viberg represent prototypes of verbs. Nuclear verbs are unmarked, contrary to more specific verbs, which are marked (Viberg 1993: 347).

Markedness represents a prototypical phenomenon in language, according to Lakoff (1987: 59-61). The acquisition of these verbs shows how categorisation by prototype affects language learning, especially where vocabulary learning is concerned. Both L1 learners and those L2 learners who learn in an informal context seem to learn these verbs, especially in their neutral meanings, earlier than other verbs. Although adults often use these basic verbs in oral communication, they also use them in a more specific way, that is, collocation, besides the neutral use. Adults also use less frequent verbs, not only frequent ones, in their communication (Viberg 1993: 353-372).

Verbal vocabulary size is presented using both *verb tokens* and *lexemes* in the following chapters. Verb tokens, or running verbs, are the verb forms that occur in written text or oral production. In this study, the verb tokens were all concrete verb forms in the production of the informants. A lexeme is an abstract lexical unit that includes all forms of a special word (Cruse 2000: 88). In common language, the concept *word* often includes both of these definitions.

In psycholinguistics, *lemma* is used to refer to a word's semantic-syntactic properties, and *lexeme* refers to a word's morphological and phonological properties. Both these terms refer to mental lexicon, and they are used in different phases of lexical access. For example, Levelt's theory of speaking distinguishes between lemma and lexeme (Roelofs & Meyer & Levelt 1998: 220).

Lemma is also used to refer to "a group of word forms that belong to the same word class, enter into the same inflectional pattern (paradigm), and approximate the same meaning" (Voionmaa 1993: 13). This definition of lemma is similar to the definition of lexeme.

Because my material consisted of the informants' oral and written production, and because I was not primarily describing processes, I did not distinguish between lexeme and lemma. I use the term *lexeme* in this study to refer to a verb as a lexical unit. The term *token* is used to refer to the realizations of different lexemes in the informants' production. Verbal lexemes

having more than one meaning are counted only once when the vocabulary size and the word frequencies are presented. I will present different semantic uses of verbs in chapter 6.

The size of the informants' verb vocabulary is presented in section 5.2. The number of verb tokens and verbal lexemes were counted in the oral and written production of the informants, that is, in the two comic strips, the interview, and the two essays. I compared their production in the different oral and written tasks, and I will discuss the influence of the tasks on the production of verbs. I also discuss what the so-called Guiraud Index relates about lexical richness in different types of tasks. In addition, the lexical richness of the informants was analyzed using the number of individual lexemes, used only by one informant. I will compare the Guiraud Index to the number of individual lexemes, and I will discuss the validity of these different indicators of lexical richness.

In section 5.3, I look at how word frequencies affected the learning and the knowledge of verbs of the informant groups of my material. First, I compare the informants' production with the verb frequencies presented in the *FD*, (chapter 5.3.1). This dictionary reveals the frequent verbs in Finnish, or input frequency, though one must make those reservations I pointed out in section 3.1. Second, I present the verb tokens that were used frequently - or output frequency - in my informants' oral and written production (5.3.2). I discuss the relationship between the input and the output frequency in the two informant groups as well as the effect of the learning materials to the output frequencies in the classroom as far as possible. I did not have access to all learning material used by the classroom learners, of course, but I compare the output frequencies of the informants to the frequencies that can be found in the textbooks of Slotte (1987, 1991). Third, I look at the nuclear verbs used by my informants (5.3.3). Were there differences between the two informant groups concerning how they used frequent verbs of Finnish in their production? Were the same verbs used frequently by both groups? Did the classroom learners use Viberg's nuclear verbs frequently; in other words, were these verbs also learned early in a classroom context? I also compare the nuclear verbs to the verbs that are used in the textbooks of Slotte (1987, 1991).

In section 5.4., I explain how frequency affects the use of verbal lexemes. In all of the subchapters, the frequency of a verbal lexeme is determined by using the *FD*. First, I look at how word frequencies affected the use of verbal lexemes, wondering if they were used by only one informant or by many informants in each informant group (section 5.4.1). Second, I look at how word frequencies affected which verbs that were shared between the informant groups and which verbs that were used only in one of the groups (section 5.4.2). In this chapter, I also look at the lexemes that were used in both the oral and the written tasks, as well as the lexemes that were used in only one of these tasks. The verbal lexemes in the production of the classroom learners are compared to the verbal lexemes in the textbooks of Slotte (1987, 1991). Third, I look at the numbers of low-frequency verbal lexemes (section 5.4.3). What were the differences between the informant groups, and what did these differences reveal about vocabulary learning of the bilinguals and the classroom learners?

In section 5.5., I analyze the verb identification task. First, the size of the verb vocabulary in the oral tasks is compared to the results of the verb identification task described in section

5.5.1. I assumed that such a comparison would increase the validity of the significance of the size of the verb vocabulary determined by the informants' production: Did the verb vocabulary size in the informants' production really indicate something about the vocabulary size of the informants more generally? Statistic significance is not given because the number of informants was low. In addition, because only one part of speech, namely, verbs, was the focus of this study, I did not try to identify the size of my informants' vocabularies in absolute figures. Identifying the total vocabulary size of an individual is a difficult task (Golden 1998: 62-63). Verb vocabulary size was important to my study because it was the basis for comparing the informants with each other; in addition, the verbal vocabulary size was compared to other factors that indicated the organization of the verb vocabulary. In section 5.5.2, the aim is to find out how frequency influenced the identification of real Finnish verbs and if there was any correlation between how the informants identified high- and low-frequency verbs and how they used these verbs in their production. Finally, section 5.6 summarizes the main results from chapter 5.

5.2. Verb lexicon size in oral and written tasks

5.2.1. Verb tokens and lexemes in oral tasks

In this section, I present the number of verb tokens and verbal lexemes in the oral tasks. I present the production in all tasks, followed by the production in the different oral tasks separately. I compare the productivity of the informant groups in the different oral tasks, and I discuss how different oral tasks impacted productivity.

Table 5.1

Number of verb tokens and verb lexemes in oral tasks of bilinguals (BLs) and classroom learners (L2s)

BL	Verb Tokens	Verb Lexemes	L2	Verb Tokens	Verb Lexemes
Anna	157	30	Berit	127	24
Kalle	129	36	Elin	52	9
Mari	100	31	Rita	48	12
Pekka	153	41	Siri	71	18
Tiina	226	61	Vivi	71	17
Total	765	199		369	80

As a group, the bilinguals produced more verb tokens and verb lexemes than the classroom learners. Concerning the individuals, one classroom learner produced more verb tokens in comparison to one of the bilinguals. None of the classroom learners produced more verb lexemes than the bilinguals. Therefore, the number of verbal lexemes rather than the number of verb tokens was different between the informant groups.

Table 5.2

Number of verb tokens and verb lexemes in different oral tasks of bilinguals (BLs) and classroom learners (L2s)

BL	Comics 1			Comics 2			Interview		
	Verb Tokens	Verb Lexemes	%	Verb Tokens	Verb Lexemes	%	Verb Tokens	Verb Lexemes	%
Anna	72	20	28	54	10	19	31	16	52
Kalle	36	13	36	37	15	41	56	24	43
Mari	39	18	46	38	11	29	23	16	70
Pekka	49	15	31	52	20	38	52	23	44
Tiina	51	25	49	29	15	52	146	46	32
BL,M	49,4	18,2	38	42	14,2	35,8	61,6	25	48,2
L2									
Berit	48	16	33	52	9	17	27	12	44
Elin	27	5	19	19	6	32	6	2	33
Rita	19	8	42	18	5	28	11	7	64
Siri	28	9	32	27	8	30	16	9	56
Vivi	32	8	26	25	7	28	14	9	64
L2, M	30,8	9,2	30,4	28,2	7	27	14,8	7,8	52,2

Percentages of lexemes versus verb tokens (%).

M = Mean value.

Both groups produced more lexemes and verb tokens in comic strip 1 than in comic strip 2. Describing a conflict situation like that in comic strip 2 seems to have been a more difficult task than describing a shopping situation, such as that in comic strip 1. The interview revealed the biggest difference between the informant groups: The bilinguals produced on average about three times as many lexemes in this task as the classroom learners, but in the comic tasks, the bilinguals only produced two times as many lexemes as the classroom learners did.

Still, not all of the bilinguals had more production in the interview than in the comic strips. If one looks at the number of lexemes, Anna and Mari produced fewer lexemes in the interview than in comic strip 1. Other bilinguals had a larger production in this task compared to the comics, and Tiina was especially productive.

When the relative number (percentage) of lexemes was compared with the verb tokens, the percentage was different in the comic strips than in the interview. The higher this percentage was, the less the informant repeated the same lexemes in the production. In written text, this percent was constant at about 50% (Grönholm 1993: 75, 89). In oral production, one may expect more repetitions of the same lexemes than in written production. Actually, this seemed to be the situation in the comic strips. In both groups, the percentages were lower than 50%, indicating repetition of the same lexemes in the comics. The classroom learners seemed to repeat the same lexemes even more often than the bilinguals in these tasks.

In the interview, the situation seemed to be different when compared to the comics. The relative number of lexemes in the interview was higher than in the comics, indicating less repetition of the lexemes in the interview than in the comics. The interview, then, seemed to be different from the comics in this respect.

The percentages of the individual informants varied quite a lot in the interview, even more than in the comics. The bilingual who actually had the lowest percentage of all the informants was Tiina. She produced significantly more verb tokens and lexemes in this task than the other pupils did. Anna and Mari in particular had a notably higher percentage than the others in this group. These informants are actually those whose number of verb tokens and lexemes declined in this task when compared to the comics.

Concerning the individual classroom learners, the relative number of lexemes compared to the verb tokens also varied. Elin and Berit had lower percentages in comparison to the other informants. Elin had the lowest production, and Berit had the highest production among the classroom learners. If a high percentage was expected to indicate lexical richness, this seemed not to be the case in this task.

Why was the relative number of lexemes so different in these two types of oral productions? I suggest that the high relative number of verb lexemes in relation to the verb tokens in the interview indicated short replies from the informants to my questions. The informants who had a relatively high number of lexemes in this task provided short answers to my questions. When the topic of discussion changed in the interview, new lexemes appeared. However, the repetition of these elements was not possible unless the interviewee provided comments and explanations. This was exactly the case with Tiina, who was remarkably different from the other informants because of the high number of both lexemes and verb tokens in this task. Kalle and Pekka, who increased the number of both their lexemes and verb tokens in this task in comparison to the comics, had many verbs in their answers. Anna and Mari, in contrast, seemed to give short answers that included few verbs. This was even true for the classroom informants. The exception was Berit, the classroom learner who had the greatest number of both lexemes and verb tokens in her production in comparison to the other classroom learners. The number of her lexical elements in this task actually was not very different from those of Anna and Mari. Concerning Elin, the relative number of lexemes compared to verb tokens revealed very little because the number of these elements in her production was extremely low.

The relative percentage between lexemes and verb tokens seems to change from style to style. It seems to be one factor to differentiate not only written and oral styles but also the two different types of oral tasks. A relatively high number of lexemes in comparison to the verb tokens did not indicate the most appropriate language use in all type of tasks. The relatively lower number of lexemes in the interview indicated wordy answers rather than short answers.

Figure 5.1 compares the production of the classroom learners in the oral tasks to the production of the bilinguals.

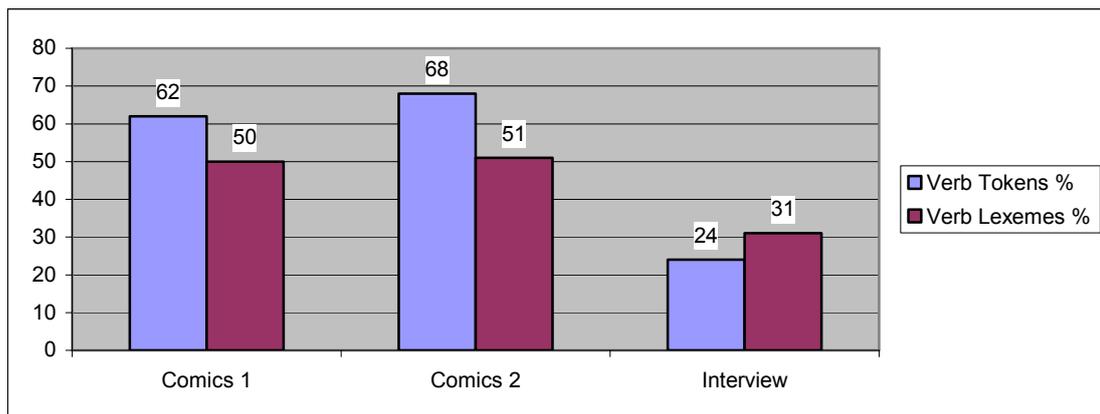


Figure 5.1. Production of classroom learners compared to production of bilinguals in oral tasks (Bilingual production = 100%).

Figure 5.1 shows that there was a bigger difference in the interview between the informant groups in comparison to the comics. The interview situation seems to have been a more demanding communicative situation for the classroom learners than the comics were. Apparently, the comic strips helped the informants to understand what the communication was dealing with and to produce responses more easily than they were able to do in the interview. The interview was an open communicative situation. It required that the informants understood the interviewer's questions. Replying to the questions seemed to necessitate a more creative use of language than merely talking about the pictures.

5.2.2. Verb tokens and lexemes in written tasks

In this section, I present the number of verb tokens and verb lexemes in the two essays, and I compare the productivity of the informants in these tasks. I also discuss the possibility that the informants' ages influenced their productivity in the essays.

Table 5.3

Numbers of verb tokens and verb lexemes in essays of bilinguals (BLs) and classroom learners (L2s)

BL	Verb Tokens	Verb Lexemes	L2	Verb Tokens	Verb Lexemes
Anna	59	20	Berit	69	24
Kalle	83	42	Elin	44	20
Mari	51	19	Rita	56	21
Pekka	46	25	Siri	64	33
Tiina	71	29	Vivi	34	14
Total	310	135	Total	267	112

The bilinguals produced more verb tokens and verb lexemes than the classroom learners, but not every bilingual learner had a higher production compared to the individual classroom learners. Bilingual Kalle had the largest production of verb lexemes, and classroom learner Siri had the next largest production. The fact that they used a dictionary was one reason why the classroom learners were able to produce more lexical elements in the essays than in the oral tasks.

Table 5.4

Number of verb tokens and verb lexemes in essays 1 and 2 of bilinguals (BLs) and classroom learners (L2s)

BL	Essay 1			Essay 2		
	Verb Tokens	Verb Lexemes	%	Verb Tokens	Verb Lexemes	%
Anna	28	10	36	31	14	45
Kalle	55	28	51	28	21	75
Mari	29	14	48	22	9	41
Pekka	32	18	56	14	9	64
Tiina	41	19	46	30	12	40
BL, M	37	17,8	47,4	25	13	53
L2						
Berit	36	18	50	33	15	45
Elin	29	14	48	15	9	60
Rita	29	16	55	27	9	33
Siri	36	21	58	28	13	46
Vivi	19	11	58	15	4	27
L2,M	29,8	16	53,8	23,6	10	42,2

The percentage of lexemes from verb tokens (%). M = Mean value.

Essay 1, *One Fine Day*, seems to have been easier for the pupils than essay 2. Almost all of the informants had a higher production in essay 1 than in essay 2. The second essay, *The School in Future*, seems to have been an even more challenging essay for the classroom learners than the bilinguals because the number of lexemes revealed more about the difficulty than the number of verb tokens. Narrating what happens during the day seemed to be an easier task in comparison to the task of describing or debating how school is going to change in the future.

In the written production, the ages of the informants may have influenced their productivity. The older the pupils were, the longer were their essays (Grönholm 1993: 51).⁸ Still, a

⁸ Grönholm referred to reports where school children in different grades are compared. A general tendency is that age influences production counted in numbers of running words or word tokens. Development demonstrated through growing numbers of word tokens is not always regular; in some grades, it seem to be more rapid than in other grades. All the reports Grönholm referred to used word tokens as a basis of comparing, but as the present work demonstrates, number of lexemes may be more significant when the production of the informants is compared. Still, in the present study, only the verbs are in focus, contrary to these referred reports that count vocabulary in its totality (Grönholm:1993: 43-51).

correlation between chronological age and greater production could be seen only when groups of individuals, not individuals, were compared. Based on so few informants, it is quite difficult to conclude how age affected production. The informants' ages did not seem to affect the length of the bilinguals' production, except the fact that the oldest bilingual, Kalle, had the highest number of lexemes in both essays and the highest amount of verb tokens in essay 1 in comparison to the other informants. He produced more verb tokens and lexical verbs than Tiina, who was the most productive informant in the oral tasks, especially in the interview. Kalle, the oldest of all the bilinguals, is 3 years older than Tiina. Mari, for example, who is older than Pekka and Tiina, did not produce more verb tokens or lexical verbs than these younger informants.

The effect of difference in age was more easily seen in the group of classroom learners, especially in their written production. Both of the younger pupils, Elin and Vivi, produced fewer verb tokens and lexical verbs than the older pupils in the written tasks, although the number of lexemes produced by Elin and Rita, who is one year older, was the same in essay 2. In the oral tasks, this age difference was not as clear because Vivi produced more verb tokens and lexical verbs than the older pupil, Rita, did.

The relative number of lexemes of the verb tokens is constant, at about 50%, as I mentioned previously (Grönholm 1993: 75, 89). The percentages of the groups were close to this percentage, with the exception of essay 2 of classroom learners,⁹ even if the percentage of the individuals varied from 75% to 27%.

Figure 5.2 compares the production of the classroom learners with the production of the bilinguals as a percentage.

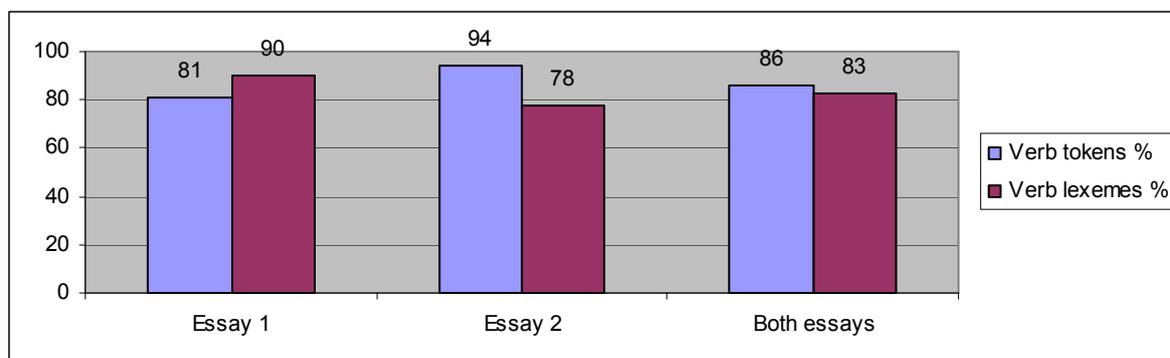


Figure 5.2. Production of classroom learners compared to production of bilinguals in essays (Bilingual production = 100%).

The difference between the groups was smaller in the written tasks than in the oral tasks. The use of a dictionary may have been one reason, but the written language process also may have been different from the oral language process because more time was available.

⁹ If the relative percentage of lexemes from verb tokens is counted from the average of the two essays, this value is 50% in the group of the bilinguals and 49% in the group of classroom learners (Niiranen 2002: 179).

5.2.3. Lexical richness in oral and written tasks

The concept of *lexical richness* was operationalised in two different ways in the present work. First, lexical richness can be defined as the relationship between the length of a text and its vocabulary. Thus, the relative number of lexemes of verb tokens may be misleading because in longer texts, the relative number of lexemes may be lower, indicating a lower lexical richness than in shorter texts. The Guiraud Index was used to compare the number of lexemes with the number of word tokens. The Guiraud Index is the number of lexemes divided by the square root of the word tokens. In this way this, the index reduces the value of the word tokens compared to that of the lexemes (Grönholm 1993: 96; Voionmaa 1993: 130).

The Guiraud Index represents a quantitative approach to lexical richness because it is only the numbers of verb tokens and lexemes that matters. Another way to express lexical richness is to compare the production of the informants to find out how many verb lexemes were unique to the production of an individual informant in comparison to other informants. Individual verb lexemes, then, were lexemes that only one of the informants used. Naturally, high-frequency lexemes were those most often shared by informants, in contrast to low-frequency lexemes, which most often were used only by one individual. Therefore, identifying individual lexemes can be considered a qualitative approach to lexical richness. In this section, the Guiraud Index value is compared to the number of individual verb lexemes, and the validity of these two approaches is discussed.

Table 5.5 gives the Guiraud Index of the two comic strips, the interview, all of the oral tasks, and the two written tasks. In the comic strips and in the essays, the index values were calculated from the mean value of the two different tasks.

Table 5.5

Guiraud Index in oral and the written tasks of bilinguals (BL) and classroom learners (L2)

BL	Comics	Interview	All orals	Essays	L2	Comics	Interview	All orals	Essays
Anna	1,9	2,9	2,4	2,2	Berit	1,8	2,3	2,1	2,8
Kalle	2,3	3,2	3,2	3,8	Elin	1,1	0,8	1,2	2,5
Mari	2,4	3,3	3,1	2,3	Rita	1,5	2,1	1,7	2,4
Pekka	2,5	3,2	3,3	2,8	Siri	1,6	2,3	2,1	3
Tiina	3,2	3,9	4,1	2,6	Vivi	1,4	2,4	2,0	1,8
BL, M	2,4	3,2	3,2	2,7	L2, M	1,5	2	1,8	2,5

M = Mean value

The Guiraud Index showed a bigger difference between the oral tasks of the informant groups compared to the written tasks: The difference in the mean values in the oral tasks (all orals) was 1.4 but only 0.2 in the essays. The interview showed the biggest difference between the groups. These results agreed with the results discussed earlier (see Figures 5.1 and 5.2).

If the values of the individual bilinguals and the classroom learners in the different tasks are compared, one can see that none of the classroom learners had a higher value in the oral tasks in comparison to any of the bilinguals. The interview seemed to be the task that made the biggest difference not only between the groups but also between the individual informants representing different types of language learners. The difference between the informant with highest value in the interview (Tiina) and the informant with the lowest value (Elin) was larger than difference between the informants with highest and lowest values in the other tasks.

The Guiraud Index for Tiina was remarkably higher than that of the other bilinguals in the interview, although Tiina had the lowest relative number (percentage) of lexemes of all of the informants in this task. It seems, then, that the index took into account the significant difference in the production, although the relative number of lexemes compared to the verb tokens was quite low. This was also seen in the index value for Elin, which was significantly lower than the values for the other informants, indicating very low production in this task (look at Table 5.2).

Still, a high Guiraud Index in the interview compared to the index value in the comic strips was not always what was expected. If we look at Anna's production, the index gave her the highest value in the interview, although she had more lexemes and verb tokens in comic strip 1, and more verb tokens in comic strip 2 than in the interview (look at Table 5.2.). Still, because Anna had the highest percentage of lexemes of verb tokens in the interview, the index number was higher than in the comic strips or even in the written tasks. The Guiraud Index was especially sensitive to the high relative number of lexemes in the production. This was also seen in the index value for Mari. Her value was higher than the values for Pekka and Kalle in the interview, although both of these latter informants had a remarkably higher number of both lexemes and verb tokens in this task in comparison to Mari (look at Table 5.2).

The high values can even be misleading, particularly if the high percentage values of the lexemes indicated short answers in the interview, as I suggested. In the interview, the high relative number of lexemes, in contrast to the written tasks and even the other oral tasks, indicated not only lexical richness but also the short answers of the interviewee. Thus, the high relative value of lexemes in production compared to the number of tokens, which resulted in a high index value, did not indicate the most appropriate use of language in the interview. Another way to describe lexical richness is to look at how many individual lexemes the informants produced.

Table 5.6

Shared and individual lexemes in oral tasks of bilinguals (BL) and classroom learners (L2)

	Shared lexemes		Individual lexemes					All individual lexemes		All lexemes	
	Number	%	Anna	Kalle	Mari	Pekka	Tiina	Number	%	Number	%
BL											
Comics	32	57	5	2	3	6	8	24	43	56	100
Interview	27	40	2	7	2	9	20	40	60	67	100
All orals	46	51	3	7	2	12	21	45	49	91	100
L2											
Comics	19	70	3	0	1	3	1	8	30	27	100
Interview	9	45	4	0	2	3	2	11	55	20	100
All orals	22	63	5	0	2	4	2	13	37	35	100

Table 5.7

Shared and individual lexemes in essays of informant groups

	Shared lexemes		Individual lexemes					All individual lexemes		All lexemes	
	Number	%	Anna	Kalle	Mari	Pekka	Tiina	Number	%	Number	%
BL											
	29	33	6	24	4	6	18	58	67	87	100
			Berit	Elin	Rita	Siri	Vivi				
L2	25	37	6	6	6	20	5	43	63	68	100

Shared and individual verbal lexemes in both groups are presented in Tables 5.6 and 5.7. Shared lexemes were those lexemes used by at least 2 of the informants; individual lexemes were those lexemes used only by 1 informant. Lexical richness expressed through individual lexemes is a more qualitative approach to lexical richness than the Guiraud Index because individual lexemes were most often the low-frequency verbs (look at Appendices 12 and 13), meaning that the quality, not only the quantity, of the lexemes mattered. If one compares the number of individual lexemes to the Guiraud Index, these two ways of expressing lexical richness did not always correlate. This was evident in the case concerning some of the individuals in the bilingual group. In regards to the comic strip, Anna had a higher number of individual lexemes than Kalle and Mari, but she had a lower Guiraud Index. In the interview, Mari had a lower number of individual lexemes than Kalle and Pekka, but she had a higher Guiraud Index than they did. When all of the oral tasks are viewed as one task, the correlation actually seemed to be better than when the tasks are viewed separately. Concerning the essays, the Guiraud Index for Pekka was higher than that for Tiina, even if Tiina had three times as many individual lexemes as Pekka.

Tables 5.6 and 5.7 also illustrate the differences between the informant groups in regards to the tasks. The classroom learners had more shared lexemes in their production than the

bilinguals in all tasks. Also, as Grönholm noted, the classroom learners had more shared lexemes than the Finnish-speaking pupils. This was natural because vocabulary was learned in a formal context and was based on the same books and teaching materials, as Grönholm pointed out (1993: 90). The fact that the number of individual lexemes was low in the group of classroom learners may also explain why there was a better correlation between the Guiraud Index and the number of individual lexemes in the group of classroom learners in comparison to the bilinguals.

Both informant groups used more shared lexemes in the comic strips than in the interview, and in both the oral tasks compared to the essays. This demonstrated the difference between these tasks: The comic strip was an elicited task, and the pictures caused the informants to produce more common lexemes when compared to the interview. An interview situation demands more creative language use, and because of this, the informants produced more individual lexemes. Written language, in comparison to oral language, is based on less frequent words (McCarthy & Carter 1997:27).

In Table 5.8, the informant groups are presented as one informant group in the oral and written tasks (look also at appendixes 15 and 16).

Table 5.8

Shared and individual lexemes in oral and written tasks when bilinguals (BL) and classroom learners (L2) are presented as one group (BL+L2)

	Shared lexemes in following groups		Individual lexemes											All lexemes BL + L2
	BL + L2	BL	L2	A	K	M	P	T	B	E	R	S	V	
Orals	29	25	2	0	6	2	8	21	3	0	1	0	0	97
Essays	35	8	6	3	17	3	6	14	5	3	6	11	3	120

The classroom learners produced only 6 verbal lexemes that did not occur in the production of the bilinguals in the oral tasks. In the written tasks, the classroom learners produced 34 verbal lexemes not found in the production of the bilinguals. In other words, in the oral tasks, the classroom learners used 94% the same lexemes as the bilinguals, but in the written tasks, they used only 72%.

Concerning individual pupils, Anna did not have any individual lexemes in the oral tasks when the groups were presented as one group. Mari had only 2 individual verbal lexemes when her vocabulary was compared with the classroom learners in the orals. Both of these informants had only a few individual lexemes left in the essays when the groups were presented as one group because some of the verbal lexemes they used alone in the group of bilinguals actually were lexemes that were used by the classroom learners. Therefore, their vocabularies seemed to resemble more closely the vocabularies of the classroom learners when compared to the other bilingual informants.

The Guiraud Index is considered a valid indicator of lexical richness (Grönholm 1993: 114-115; Voionmaa 1993: 130-132). However, because the Guiraud Index is a purely quantitative approach to lexical richness, it does not indicate anything about the quality of vocabulary. When I described the lexical richness of the informants as the number of individual lexemes in production, that is, using a more qualitative approach to lexical richness, these numbers did not always correlate with the Guiraud Index. The Guiraud Index cannot identify the differences between genres, so the value it gave to the interview seemed not to be valid. Even if the Guiraud Index differentiates the two groups of learners, it is important also to look at the more qualitative side of vocabulary besides a purely quantitative approach when lexical richness is discussed.

5.3. Verb tokens in oral and written tasks

5.3.1. Verb tokens compared to verb frequencies in Finnish

In this section, I compare the verb tokens that the informants produced in the oral and written tasks to the frequency of words presented in the *FD*. This dictionary is primarily based on the standard Finnish found mainly in written material collected from fiction, nonfiction, and newspapers, as well as language used on the radio. The data are drawn from a corpus of 408,301 word occurrences and 43,670 different words. Because the corpus is so large, I suppose that the most frequent words presented in this dictionary may even be frequent in spoken language, though the rank number of words may differ from style to style. There is no dictionary of spoken standard Finnish, but there is a frequency dictionary based on Finnish dialect material.

In Table 5.9, the number of verb tokens is presented in the oral and written tasks. The table also presents the tokens in the comic strips and in the interview. The number of individuals are presented in Appendices 10 and 11.

Table 5.9

Verb tokens in oral tasks and essays in relationship to rank intervals presented in *A Frequency Dictionary of Finnish (FD)*

Rank intervals	Comics			Interview			Total orals			Essays		
	Tokens	%	Cum.%	Tokens	%	Cum.%	Tokens	%	Cum.%	Tokens	%	Cum.%
BL												
1.	81	17,7		107	34,7		188	24,6		91	29	
2-100	220	48,1	65,8	74	24	57,8	294	38,4	63	92	30	59,1
101-500	109	23,9	89,7	87	28,2	86,9	196	25,6	88,6	53	17	76,2
501-1000	25	5,5	95,2	15	4,9	91,8	40	5,2	93,8	32	10	86,5
1001-3000	11	2,4	97,6	15	4,9	96,7	26	3,4	97,2	30	9,7	96,2
3001-6000	4	0,9	98,5	3	1	97,7	7	0,9	98,1	4	1,3	97,5
6001-	5	1,1	99,6	3	1	98,7	8	1	99,1	3	1	98,5
not in the d.	2	0,4	100	4	1,3	100	6	0,8	100	5	1,6	100
Total	457	100		308	100		765	99,9		310	100	
L2												
1.	92	31,2		27	36,5		119	32,2		105	39	
2-100	80	27,1	58,3	9	12,2	48,7	89	24,1	56,3	40	15	54,3
101-500	86	29,2	87,5	14	18,9	67,6	100	27,1	83,4	52	20	73,8
501-1000	10	3,4	90,9	5	6,8	74,4	15	4,1	87,5	20	7,5	81,3
1001-3000	25	8,7	99,4	15	20,3	94,7	40	10,8	98,3	39	15	95,9
3001-6000	1	0,3	99,7	2	2,7	97,4	3	0,8	99,1	5	1,9	97,8
6001-	0	0	100	0	0	100	0	0	100	4	1,5	99,3
not in the d.	1	0,3		2	2,7		3	0,8		2	0,7	100
Total	295	100		74	100		369	99,9		267	100	

Not in the d = not in the dictionary. Bilinguals (BL) and classroom learners (L2)

Table 5.9 shows that the classroom learners used the most frequent verb in Finnish, *olla*, ‘to be,’ more than the bilinguals did. The overuse of frequent verbs was a common phenomenon in the learners’ language (e.g., Grönholm 1993: 135).

Both informant groups use this most frequent verb in Finnish, the verb *olla*, ‘to be,’ more frequently in the interview than in the comic strips. In Finnish, this verb can be used as an answer to yes/no questions, which may partially explain the more frequent use of the verb *olla* in the interview not only by the bilinguals but also by the classroom learners. However, a larger variation of the use of the tenses in the interview may also have meant that several examples of the verb *olla* were to be found here than in the comics because the auxiliary verb in Finnish is the verb *olla* in the perfect and past perfect tenses.

In the written tasks, the frequency of the verb *olla* was even higher than in the oral tasks in both groups. The classroom pupils used the verb *olla* even more frequently in their written production than they did in the interview. One explanation may have been that in both groups, there was more variation in the use of tenses; however, this was not the case concerning all of the informants. Puro (2002: 70) pointed out that the verb *olla* is used more often in the written products of adult L2 learners compared to their oral production.

Grönholm studied the use of frequent verbs in Finnish in the written production of Swedish-speaking pupils learning Finnish in Finland and in the production of Finnish speakers. She presented the following percentages of the verb *olla*, ‘to be,’ in their production (1993: 127-137).

Table 5.10

Percentages of *olla*, ‘to be,’ in production of Finnish speakers and Swedish-speaking L2 learners of Finnish according to Grönholm (1993; Table 41 in chapter 6.3.1, Table 43 in chapter 6.3.2, and Table 45 in chapter 6.3.3)

	4.grade	6.grade	8.grade
Finnish pupils	31,1	35,9	28,9
Swedish pupils	38	24,2	29,1

If one compares the percentage of *olla* in the production of the classroom learners with the percentages presented by Grönholm, it seems that the classroom learners overused the verb *olla* in their written production in my material. The percentage of *olla* in the production of the bilinguals was not very different from the figures at the 8th grade presented by Grönholm. Pupils in the 8th grade are 14 to 15 years old in Finland (Grönholm 1993: 21), but the informants in my study ranged in age from 12 to 15. The classroom learners in my study more closely resembled the Swedish-speaking L2 learners in the 4th grade,¹⁰ who were many years younger than classroom learners in my study; therefore, the high frequency of the verb *olla* in the production of the classroom learners actually seemed to be overused in the essays. In chapter 5, when I present the syntactic functions of the verb *olla*, I discuss what may have caused the overuse of this frequent verb, especially among the classroom learners.

One reason for the overuse of the verb *olla* seems to be the textbook used by the L2 learners. The first volume of Slotte (1991) starts by presenting many constructions in Finnish in 27 chapters where only the verb *olla* is used, so in about one third of the first textbook, only the verb *olla* is used. The verb *olla* dominates all other verbs even after this book starts to present other verbs beside the verb *olla*. I have counted the frequencies of verbs in the first textbook from page 36, where other verbs beside the verb *olla* start to occur in the textbook, and the

¹⁰ Swedish-speaking pupils in Finland have contact with Finnish language also outside the classroom. According to Grönholm, some pupils who come from Swedish-speaking homes are also able to speak Finnish already before they start Finnish studies at school. Because of the contact with the Finnish language, not all Swedish-speaking pupils are real classroom learners. Bilingual pupils were separated from Swedish-speaking peoples in Grönholm’s study (1993: 19-22).

verb *olla* makes some 40% of all verb tokens in the textbook (see Appendix 12). Only in the second volume text of Slotte (1987), also used by the classroom learners, are other verbs beside the verb *olla* used more often.

On the other hand, the classroom learners made less use of other frequent verbs of Finnish in their oral and written production in comparison to the bilinguals, as the cumulative percentages of the verb tokens in the different rank intervals demonstrate. The number of verb tokens of the bilinguals declined regularly when moving from the rank intervals including high frequent words to those of low frequent verbs. There were very few exceptions. The classroom learners had 25 verb tokens in the rank interval 1,001 to 3,000 words in the comics, but only 10 tokens in the rank interval 501 to 1,000 words. The same kind of “jump” in the same interval was seen in the interview and in the essays. Therefore, the frequency of the verbs used by the classroom learners did not reflect the frequency of the Finnish verbs presented in the frequency dictionary. When I present the lexemes that my informants used, I will look more closely at which kinds of lexemes caused this “jump” in this rank interval in the production of the classroom learners.

The higher use of frequent verbs other than the verb *olla*, ‘to be,’ of the bilinguals, in comparison to that of the classroom learners, was surprising; one could have assumed quite the opposite because the frequent verbs often are the first verbs to be learned (see for example Viberg 1993.). I suppose that the numbers of verb tokens of the classroom learners in different rank intervals differed both from the frequencies in the *FD* and from the relative numbers of verb tokens of the bilinguals, revealing something about vocabulary learning in a formal context. For example, the frequencies in teaching materials and frequencies in language used in the classroom may be different from frequencies that occur in an informal context, as the use of the verb *olla* in one of the textbooks used in the classroom seems to demonstrate. When I present the most frequent verbs in the oral and written production of the informants in the next section, I discuss if these output frequencies of the classroom learners could be result of the verbs frequencies of the textbooks used in the class room.

5.3.2. Top 10 lists of verbs in oral and written tasks

In this section, the most frequent verb tokens in the production of the informants are presented. First, I present the 10 verb tokens that were used the most often by the bilinguals and the classroom learners in the oral tasks. I then present the top 10 verb tokens in the essays.

Table 5.11

10 most used verb tokens in comic strips, interview, and in all oral tasks of bilinguals (BL) and the classroom learners (L2). Numbers of informants using these verb tokens in all the oral tasks. When the production of classroom learners is compared to the production of BL, the percentages of bilinguals are repeated (compared to BL%)

BL		Number of informants	Number of verb tokens in the comics	Number of verb tokens in the interview	Total number of verb tokens in the orals	%	Cum.%		
Olla	be	5	81	107	188	24,6			
Sanoa	say	5	82	2	84	11	35,6		
Lukea	read	5	38	14	52	6,8	42,4		
Mennä	go	4	19	12	31	4,1	46,5		
Saada	get	5	23	3	26	3,4	49,9		
Tietää	know	5	8	16	24	3,1	53		
Haluta	want	5	22	1	23	3	56		
Ostaa	buy	5	16	6	22	2,9	58,9		
Pitää	must	5	18	3	21	2,7	61,6		
Tulla	come	5	13	6	19	2,5	64,1		
								Compared to BL %	
L2									
Olla	be	5	92	27	119	32,2	24,6	Over *	
Lukea	read	4	36	5	41	11,1	43,3	6,8	Over
Haluta	want	4	33	0	33	8,9	52,2	3	Over
Sanoa	say	4	29	0	29	7,9	60,1	11	Under
Kävellä	walk	3	13	3	16	4,3	64,4	0,3	Over
Syödä	eat	3	6	5	11	3	67,4	2	Over
Katsoa	look	5	7	3	10	2,7	70,1	1,4	Over
Saada	get	2	10	0	10	2,7	72,8	3,4	
Tehdä	make	2	8	1	9	2,4	75,2	1,8	
Mennä	go	3	7	1	8	2,2	77,1	4,1	Under
Nukkua	sleep	3	3	5	8	2,2		0,3	Over

* The difference between the groups is marked as over- or underrepresentation if the difference is 1% or larger. The statistic significance of the differences is not calculated because the low number of informants in the project.

The two groups shared six common verbs. Four of these are some of the most frequent verbs in Finnish, namely, the verbs *olla*, ‘to be’; *sanoa*, ‘to say’; *mennä*, ‘to go’; and *saada*, ‘to get.’ All of these verbs belong to the 100 most frequent words in Finnish. Also, the verbs *haluta*, ‘will,’ and *lukea*, ‘to read,’ are quite frequent verbs in Finnish according to the *FD*, even if they do not belong to the 100 most frequent verbs. *Lukea* is a verb that is relevant to the

dialogue in comic strip 2, which was about reading a book. This verb was also used in the interview when the informants talked about their hobbies.

It seems that the verb *kävellä*, ‘to walk,’ was used extensively in the production of the classroom learners. The frequent use of this verb meant that the other frequent motion verbs of *mennä*, ‘to go,’ and *tulla*, ‘to come,’ were less frequently used by the classroom learners than the bilinguals. *Tulla* did not belong to the 10 most frequent verbs in the group of classroom learners, as it did in the group of the bilinguals. Even in the group of classroom learners, *tulla* was still quite frequent and belonged to the 15 most frequently used verbs.

The other verbs besides *tulla* that belonged to the 10 most frequent verbs in the group of the bilinguals, but not in the groups of classroom learners, included the modal verb *pitää*, ‘must’; the verb *ostaa*, ‘to buy’; and *tietää*, ‘to know.’ *Ostaa*, ‘to buy,’ was used frequently in comic strip 1, which was about buying shoes. *Tietää* was used frequently in the interview, most often in a phrase *en tiedä*, ‘I don’t know.’

Besides the modal use the verb *pitää*, ‘must,’ this verb has several other uses in Finnish. However, all the bilinguals used this verb also as a modal verb (look at chapter 5). The other usual modal verb, *voida*, ‘can, be able to,’ did not belong to the 10 top verbs, but it was still quite frequently used by the group of bilinguals and belonged to the 20 most used verbs in their production. Because the verb *saada* is also used as a modal verb meaning ‘be allowed to,’ besides the possessive use meaning ‘to get,’ it seems that the bilinguals used all three of the most common modal verbs frequently. The verb *saada* belonged to the top 10 verbs also in the production of the classroom learners, but it was used the most often as a verb of possession and as a modal verb only once in the oral tasks by the classroom learners.

The verbs that the classroom learners had among their most frequent 10 verbs and which were different from the most frequent verbs of the bilinguals, besides the already mentioned verb *kävellä*, ‘to walk,’ included the other verbs of *katsoa*, ‘to look’; *tehdä*, ‘to make’; and *syödä*, ‘to eat.’ All of these verbs are frequent verbs in Finnish, and *tehdä* and *katsoa* belong to the 100 most frequent verbs in Finnish. *Syödä* was used both in the comic strips and in the interview by the classroom learners, which was in contrast to some other verbs that were frequently used only in the comic strips. Still, the verbs used in the comic strips dominated the frequent verbs of the classroom learners in the oral tasks because their production in the interview was very restricted. Also, in the group of bilinguals, the frequent verbs in the interview had a wider distribution than in the comic strips.

The most frequent verbs in Finnish, then, seemed to be frequently used in the orals. Some of these verbs, including *saada*, ‘to get, be allowed to,’ and *pitää*, ‘must, like,’ can be used in several ways, and in this way, the usefulness of these verbs may even increase. This fact may explain the frequency of these verbs in the production of the bilinguals. Several of the frequent verbs are also so-called nuclear verbs, which I will present more closely, in section 5.5.5. Some of the frequently used verbs were relevant in the dialogue in the comics or in the conversation in the interview. One frequent verb, *kävellä*, ‘to walk,’ was used extensively in the group of classroom learners.

All the verbs used frequently in the oral tasks by the classroom learners occur in the first volume of Slotte (1991), and many of them are also repeated in the second volume of Slotte (1987). When comparing the top 10 list in the orals in Table 5.11 with the frequent verbs in the first volume of Slotte (1991, see appendix 12), many same verbs can be found: *olla*, *saada*, *tehdä*, *nukkua*, *mennä* and *sanoa* belong to the top 10 verbs in the first textbook of Slotte (1991), and the verbs *haluta* and *syödä* belong to the top 20 verbs in the same textbook. Also, *lukea* and *katsoa* occur quite often in this volume. *Lukea* is a verb which is used often in a classroom context very likely. The only verb in the top 10 list of the classroom learners that does not occur often in the first volume of Slotte (1991) is the verb *kävellä*, and this verb is not frequently used in the second of the textbooks either. So, the verbs that are used frequently in the textbook seem to be used frequently in the oral tasks. Many of the frequent verbs of the textbook also are, of course, the most frequent verbs of Finnish, but it is possible to conclude that the 10 top verbs of the classroom learners in the oral tasks were influenced by the frequency of the verbs in the textbook. In other words the input frequencies influenced the output frequencies.

Table 5.11 shows that the 10 most frequent verb tokens comprised a larger percentage of usage in the production of the group of classroom learners (77,1%) compared to the bilinguals (64,1%). The classroom learners overused not only the verb *olla* but also many other verbs from the top 10 list when their production is compared to the production of the bilinguals. A corresponding result is demonstrated in the study of Viberg (1993), where the 10 most frequent verbs comprised 54% of verbs in the oral production of Swedish-speaking children but 61% in the production of Swedish L2 learners (Viberg 1993: 353, 257).

The next table presents the top 10 verb tokens in the essays:

Table 5.12

10 most used verb tokens in essays of bilinguals (BL) and classroom learners (L2). Numbers of informants using these verb tokens in the essays. When the production of classroom learners is compared to the production of BL, the percentages of bilinguals are repeated (= Comp. to BL %)

BL					L2							
		Number of informants	Number of verb tokens	%	Cum. %			Number of informants	Number of verb tokens	Cum. %	Comp. to BL %	
Olla	Be	5	91	29,4		Olla	be	5	105	39	29,4	Over*
mennä	Og	4	20	6,5	35,9	Tulla	come	2	11	4,1	43,1	4,2
Tulla	come	4	13	4,2	40,1	Haluta	come	4	10	3,7	46,8	0,3 Over
saada	Get	5	10	3,2	43,3	Kävellä	walk	5	9	3,4	50,2	0,3 Over
pitää	must	4	10	3,2	46,5	Pitää	must	3	8	3	53,2	3,2
sanoa	Say	3	10	3,2	49,7	Istua	sit	4	7	2,6	55,8	0,6 Over
tehdä	Do	3	5	1,6	51,3	Katsoa	look	4	6	2,2	58	1,3
kysyä	Ask	3	5	1,6	52,9	Toivoa	hope	4	5	1,9	59,9	1
syödä	Eat	3	5	1,6	54,5	Juosta	run	4	5	1,9	61,8	1
tarvita	Need	2	5	1,6	56,1	Paistaa	shine	4	5	1,9	63,7	1
laulaa	Sing		5	1,6								
ostaa	Buy		5	1,6								

* The difference between the groups is marked as over- or underrepresentation if the difference is 1% or larger. The statistic significance of the differences is not calculated because of the low number of informants in the study.

The top 10 verbs also comprised a larger percentage of all verbs in the essays in the group of classroom learners in comparison to the bilinguals, even if the difference between the groups was slightly smaller in the essays than the oral tasks. In addition, Grönholm's study demonstrated a difference between Finnish-speaking pupils and Swedish-speaking L2 learners of Finnish concerning the percentage that the most frequent verbs comprised in their production: The top 10 verbs comprised 60,7% of the total verbal production of the verbs produced by Finnish L2 learners and 55,9% of the verbs produced by Finnish-speaking pupils at the Grade 8 level (Grönholm 1993: 137, 141; the percentages are taken from Tables 45 in section 6.3.3 and Table 47 in section 6.3.4 in her study).

The distribution of the verbs in the written tasks was larger than in the orals. In other words, the same verbs were not repeated as frequently in the written tasks as they were in the oral tasks. The number of informants using the top 10 verbs also demonstrated the difference concerning the distribution of the verbs. The bilingual informants in particular did not agree about the top 10 verbs in the written tasks in the same way as they did in the oral tasks because in the oral tasks almost all the top 10 verbs were used by all 5 bilinguals, in contrast to the essays, where only 2 of the top 10 verbs were used by all 5 bilinguals.

Also, the fact that there were only 3 common verbs in the top 10 lists of the two informant groups (look at Table 5.12) indicated that the distribution of the verbs was wider in the essays than in the orals. In addition to the verbs *olla*, 'to be,' and *tulla*, 'to come,' the only common verb in the lists of the informant groups was the verb *pitää*, 'must, like.' The classroom learners did not use this verb at all in the oral tasks. Not all of the classroom learners used it in the written tasks either. The verb *kävellä*, 'to walk,' seems to have been used extensively in the essays, and this meant that the verb *mennä*, 'to go,' was not in the list of the top 10 verbs in the group of classroom learners.

The bilinguals had 2 speech act verbs in their list, namely, the frequent verb *sanoa*, 'to say,' which was also in the top 10 list in the orals, and the less frequent speech act verb *kysyä*, 'to ask.' The bilinguals' list also included the frequent verbs *saada*, 'to get,' and *tehdä*, 'to make.' The first one was used frequently in the orals by both informant groups, and the latter one belonged to the top 10 list in the orals by the group of classroom learners.

The verbs *haluta*, 'to want,' and *katsoa*, 'to look at,' were in the top 10 lists both in the orals and in the essays of the classroom learners. In addition to the cognition verb *haluta*, 'to want,' several classroom learners also used the cognition verb *toivoa*, 'to hope,' in the written tasks, a verb that they did not use at all in the oral tasks. The verb *paistaa*, 'to shine,' was used frequently in the first essay, *One Fine Day*.

Seven of the top 10 verbs of the bilinguals (*olla*, 'to be'; *mennä*, 'to go'; *tulla*, 'to come'; *saada*, 'to get, to be allowed to'; *pitää*, 'must, to like'; *sanoa*, 'to say'; and *ostaa*, 'to buy,' in the written tasks were the same verbs as in the top 10 list in the orals. All these verbs, except *ostaa*, 'to buy,' belong to the 100 most frequent words in Finnish. Therefore, even though the oral and written tasks were different in regards to the distribution of the verbs, many of the same verb lexemes were used frequently in both tasks by the bilinguals.

In the group of classroom learners, only 4 of the verbs in the top 10 list in the written tasks were the same as those used in the orals: *olla*, 'to be'; *haluta*, 'to want'; *kävellä*, 'to walk'; and *katsoa*, 'to look.' One might have expected the classroom learners to use an even higher number of the same verbs frequently in the oral and written tasks in comparison to the bilinguals. The fact that this was not the case may have meant that many of their verbs in the essays were found in the dictionary.

In the list of the 10 top verbs in the essays, only 3 of the same verbs (*olla*, *tulla*, *istua*) also occurred in the 10 top list in the first textbook of Slotte (1991), and 2 verbs in addition (*haluta*, *juosta*) were found in the 20 top list in the same textbook. Two verbs, *pitää* and *toivoa*, were not used in the first textbook, but only in the second volume of Slotte (1987); however, these verbs were not among the frequent ones either in this textbook. Verb frequencies in the learning materials seemed not influence the output frequencies in the essays of the classroom learners as intensively as they did in the oral tasks; again, the reason probably was the use of a dictionary.

5.3.3. Nuclear verbs in oral and written tasks

In this section, I explain how the informants used the nuclear verbs presented by Viberg (1993). I studied my data to establish if there were differences between the informant groups or the individual informants concerning the use of these verbs. One might have expected many of the informants to use these verbs because they belong to the most frequent elements in the language. I present the nuclear verbs and their relative frequency in the oral production (look at Table 5.13) and then in the essays (look at Table 5.14).

Table 5.13

Nuclear verbs in oral production of bilinguals (BL) and classroom learners (L2). Number of informants = Number of informants using the verb

		BL			L2			
		Number of informants	Number of verb tokens	%	Number of informants	Number of verb tokens	%	
Olla	be	5	188	25	5	119	32	Over *
Sanoa	say	5	84	11	4	29	7,9	Under
Mennä	og	4	31	4,1	3	8	2,2	Under
Tietää	know	5	24	3,1	2	3	0,8	Under
Haluta	will	5	23	3	4	33	8,9	Over
Pitää	must	5	21	2,7	0	0	0	Under
Tulla	come	5	19	2,5	3	5	1,4	Under
Ottaa	take	5	15	2	1	3	0,8	Under
Tehdä	make	4	14	1,8	2	9	2,4	
Voida	can	4	13	1,7	0	0	0	Under
Antaa	give	5	13	1,7	3	7	1,9	
Nähdä	see	2	3	0,4	2	3	0,8	
Total			448	59		219	59	

* The difference between the groups is marked as over- or underrepresentation if the difference is 1% or larger. The statistic significance of the differences is not calculated because of the low number of informants in the study.

In the orals, the nuclear verbs seemed to be central to the oral production of the bilinguals. Seven of their top 10 verbs were nuclear verbs (*olla*, ‘to be’; *mennä*, ‘to go’; *tulla*, ‘to come’; *sanoa*, ‘to say’; *haluta*, ‘to want’; *pitää*, ‘must’; and *tietää*, ‘know’; look at Table 5.11). In addition, the nuclear verbs *ottaa*, ‘take’; *antaa*, ‘to give’; *tehdä*, ‘to do, to make’; and *voida*, ‘can,’ belonged to the 20 most used verbs in the orals. The verb *pitää*, which has other uses besides the modal in Finnish, was used as a modal verb by all of the informants in the comic strips.) Therefore, the only nuclear verb presented by Viberg that was not used as frequently by the bilinguals in the comic strips was *nähdä*, ‘to see.’ Only one bilingual used this verb in the comic strip.

The classroom learners did not use nuclear verbs as often as their most frequent verbs in the orals. Five of their top 10 verbs were nuclear verbs in the orals (*olla*, ‘to be’; *mennä*, ‘to go’; *tehdä*, ‘to do, to make’; *sanoa*, ‘to say’; and *haluta*, ‘to want’). Besides the verbs already mentioned, two nuclear verbs, namely, *tulla*, ‘to come,’ and *antaa*, ‘to give,’ belonged to the 16 most used verbs in the orals in this group. The classroom learners did not use the two modal verbs *voida*, ‘can,’ and *pitää*, ‘must,’ at all in the comic strips. Only Siri used the verb *ottaa*, ‘to take,’ and the verb *tietää*, ‘to know,’ was used only by 2 of the classroom learners. The perceptual verb *nähdä*, ‘to see,’ was not used very often by this group. Actually, the perceptual verb *katsoa*, ‘to look,’ was used more frequently (look at Table 5.11); this verb, however, is not one of Viberg’s nuclear verbs.

Still, as a percentage, the bilinguals used the nuclear verbs in the orals as often as the classroom learners did. An apparent overuse of two nuclear verbs (*olla*, ‘to be,’ and *haluta*, ‘to want’) explains why the percentage of the classroom learners was as high as that of the bilinguals. Table 5.14 presents the absolute and relative figures of nuclear verbs in the written tasks.

Table 5.14

Nuclear verbs in essays of bilinguals (BL) and the classroom learners (L2). Number of informants = number of informants using the verb.

		BL			L2				
		Number of informants	Number of verb tokens	Number of informants	Number of verb tokens	Number of informants	Number of verb tokens	%	
Olla	be	5	91	29	5	105	39	Over	*
Mennä	go	4	20	6,5	2	3	1,1	Under	
Tulla	come	4	14	4,5	2	11	4,1		
Sanoa	say	3	10	3,2	1	2	0,7	Under	
Pitää/täytyä	must	4	10	3,2	3	9	3,4		
Tehdä	make	3	5	1,6	1	1	0,4	Under	
Ottaa	take	2	4	1,3	2	2	0,7		
Voida	can	2	4	1,3	0	0	0	Under	
Tietää	know	2	2	0,6	1	1	0,4		
Antaa	give	2	2	0,6	0	0	0		
Nähdä	see	2	2	0,6	0	0	0		
Haluta	will	1	1	0,3	4	10	3,7	Over	
Total			165	53		154	54		

* The difference between the groups is marked as over- or underrepresentation if the difference is 1% or larger. The statistic significance of the differences is not calculated because of the low number of informants in the study.

In both groups, nuclear verbs were used less frequently in the written tasks than in the oral tasks. The total frequencies of these verbs were slightly higher for the classroom learners than the bilinguals. However, the reason was the overuse of the same verbs as in the oral tasks, as Table 5.14 shows.

Even if the relative number of all nuclear verbs in the oral and written production was the same in both informant groups, the nuclear verbs seemed, nevertheless, to be more central in the production of the bilinguals than in the production of the classroom learners. The number of individual informants who used nuclear verbs demonstrated this. All of the bilingual informants use all the nuclear verbs the most often, especially in the orals. Actually, only one nuclear verb (*olla*, ‘to be’) was used by all classroom learners in the oral tasks.

Many of the nuclear verbs are used frequently in the textbooks of Slotte (1987; 1991). Six of the nuclear verbs are found in the top 20 list in the first volume (*olla*, *tehdä*, *tulla*, *mennä*, *sanoa*, *haluta*), and the verb *tietää* is also quite frequent in the same volume (See appendix 12). On the other side, the verbs *antaa*, *ottaa* and *nähdä* occur in the first volume also, but they are used quite seldom, for example, the verb *ottaa* is used only 3 times. These three verbs as well as the verb *tietää* occur more frequently in the last than in the first textbook of Slotte (1991), where the verb *ottaa* is used many times. The modal verbs *pitää* and *voida* do not occur in the first volume at all but are used only in the last volume, though the verb *pitää* is used in meaning ‘to like’ entirely. The verb *voida* also is used especially frequently in this volume. The classroom learners have read also the second volume, but they still do not use these two verbs in their oral production. The low input frequencies in the learning material and especially in the first volume of Slotte (1991) may explain why some of these verbs were not used that frequently by the classroom learners. Although there were also frequently used nuclear verbs in the learning material, not all of these verbs occurred less frequently in the production of the classroom learners. The output frequency of the verb *kävellä* is one factor explaining why the verb *mennä* was used less frequently. The verb *tehdä*, which is frequent in both volumes of Slotte (1987, 1991), because it is used often in the questions presented under the text is a verb with a very special conjugation in Finnish, together with *nähdä*, and the formal difficulty of this verb, may explain why it was used so seldom.

Figure 5.3 presents the nuclear verbs in the production of the individual informants:

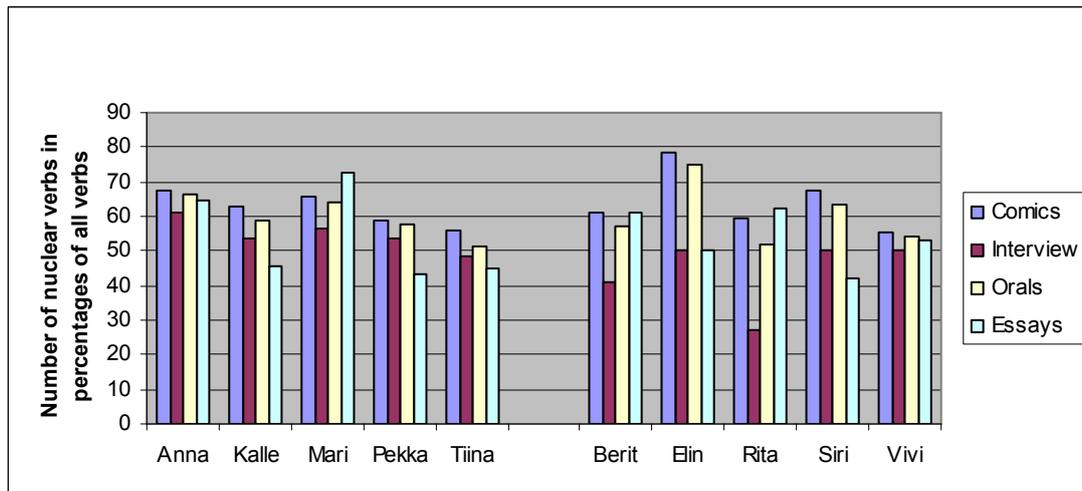


Figure 5.3. Nuclear verbs in production of individual informants. The pillars are percentages of the nuclear verb tokens of all verb tokens in the production of the informant.

Figure 5.3 shows that the nuclear verbs were even more central in the production of Anna and Mari in comparison to the production of the other bilinguals. Over 60% of their verb tokens were nuclear verbs in both the oral and the written tasks. It has already been noted that their verb vocabularies seemed to be smaller than the vocabularies of other bilinguals, both where the numbers of verbal lexemes and the numbers of individual verb lexemes in their production are concerned. The use of nuclear verbs demonstrated that their vocabulary consisted of frequent verbs to a high degree. Beside the nuclear verbs, these informants also used other frequent verbs more often when compared to the other bilinguals (look at Appendices 10 and 11).

Except in their use of some of the nuclear verbs, the classroom learners used these verbs relatively less often than the bilinguals did. They had fewer nuclear verbs both in the orals and in the written tasks. Still, some of the nuclear verbs were used repeatedly, especially in the oral production of Elin and Siri. The difference between the use of nuclear verbs in the oral and written production of these two informants was also remarkable; these informants often used nuclear verbs in the oral tasks, but seldom in the essays. This difference seemed to indicate that they must use a dictionary frequently when writing essays.

According to Viberg, nuclear verbs are learned earlier than other verbs both by the children and L2 learners in an informal context (1993: 371). Therefore, one could have expected that the classroom learners would have used these most common verbs more often in their production than the bilinguals, but the situation seems to have been quite the opposite, except for very few nuclear verbs. The learning of vocabulary seems to be different in a classroom setting than in an informal context. This also seems to be the case when learning nuclear verbs. These verbs seemed to have a more central place in the production of the bilinguals than the classroom learners. However, because nuclear verbs belong to the most frequent lexical elements in language, the small number of them in the production of the classroom

learners again demonstrated that their knowledge of basic vocabulary in Finnish was not solid enough.

5.4. Verbal lexemes in oral and written tasks

5.4.1. Shared and individual lexemes in informant groups

In this section, I compare the verbal lexemes in the production of the informants to the word frequencies in the *FD* to find out if the frequent verbs of Finnish were more often shared lexemes in the production of the informants. Shared verb lexemes were used by at least 2 of the informants in each informant group (compare the definition of shared and individual lexemes in Tables 5.6 and 5.7). In this section, I discuss the shared and individual lexemes separately for both informant groups, first in the oral tasks (Figures 5.4 and 5.5) and then in the essays (Figures 5.6 and 5.7). I present these lexemes only at the group level and as percentages of all lexemes at different rank intervals; the number of shared and individual lexemes at the different rank intervals of the individuals is presented in Appendices 13 and 14.

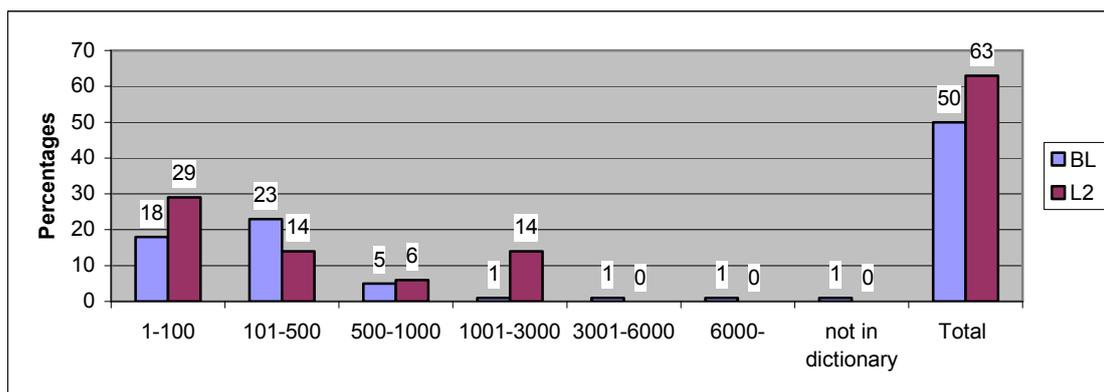


Figure 5.4. Percentages of shared lexemes of all lexemes in oral tasks in different rank intervals in the group of bilinguals (BL) and classroom learners (L2.)

Figure 5.4 shows that the rank intervals, including frequent verbs, also included more shared lexemes when compared to the rank intervals with less frequent verbs, a result that was expected. The classroom learners had quite a high percentage of shared lexemes in the rank interval 1,001 to 3,000, the interval where the number of verbs in this group jumped up (look at Table 5.9). The reason may have been that the classroom learners had learned verbs that belong to this rank interval especially well, considering that their vocabulary seemed to be relatively consistent here.

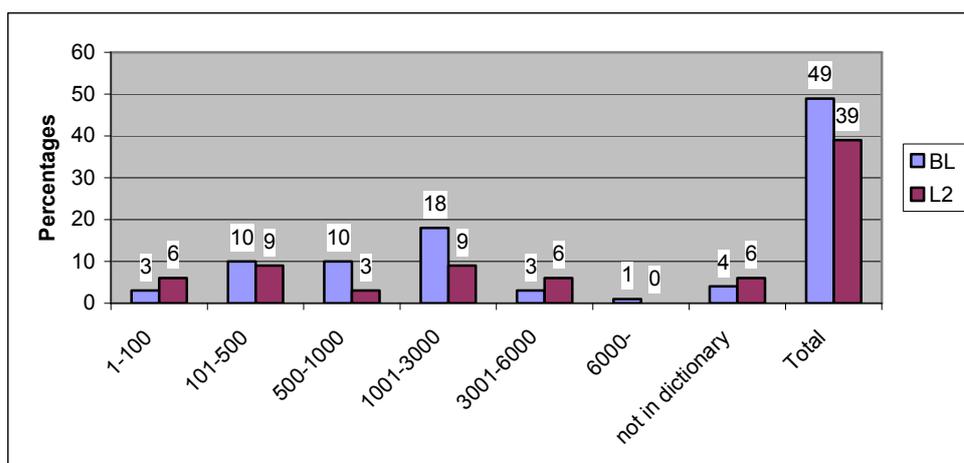


Figure 5.5. Percentages of individual lexemes of all verbal lexemes in oral tasks in different rank intervals of bilinguals (BL) and classroom learners (L2).

In the group of bilinguals, the percentages of individual lexemes increased almost cumulatively between the intervals 1 and 3,000, which was a reasonable expectation: The less frequent a verb was, the less probable it was that many of the informants had used it. The highest number of individual verbs of the bilinguals was found in the interval from 1,000 to 3,000 of the most frequent verbs. In the rank intervals, where there were verbs less frequent than the 3,000 most frequent verbs, meaning the two rank intervals with low-frequency verbs and the verbs not in the frequency dictionary in Figure 5.5, the verbal lexemes most often were the individual lexemes, but the number of low-frequency verbs was small, and the pillars were low because the percentages were counted for all lexemes.

The individual lexemes in the group of classroom learners, on the other hand, did not increase cumulatively in the rank intervals. This fact also may have demonstrated that there were different verb frequencies in the informant groups.

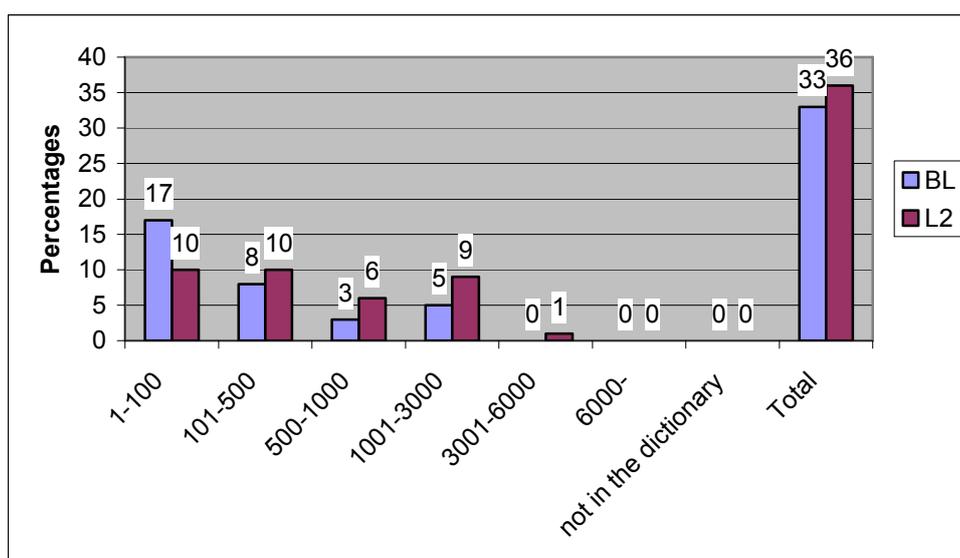


Figure 5.6. Percentages of shared lexemes of all lexemes in essays in different rank intervals of bilinguals (BL) and classroom learners (L2.)

In the essays, the classroom learners used fewer shared lexemes in the interval with the most frequent verbal lexemes, as compared to the bilinguals, as Figure 5.6 demonstrates. The shared verbal lexemes in the classroom learners seemed to appear more regularly in all of the intervals in comparison to the verbal lexemes of the bilinguals. Again, it seems that the classroom learners did not follow the frequencies presented in the *FD*, something which the bilinguals seemed to do, even if they also had a jump up in the rank interval with 1,001 to 3,000 of the most frequent words. Both informant groups used shared verbs less often in the written tasks than the oral tasks, and difference between the groups concerning the use of shared lexemes was smaller in the written tasks than the oral tasks.

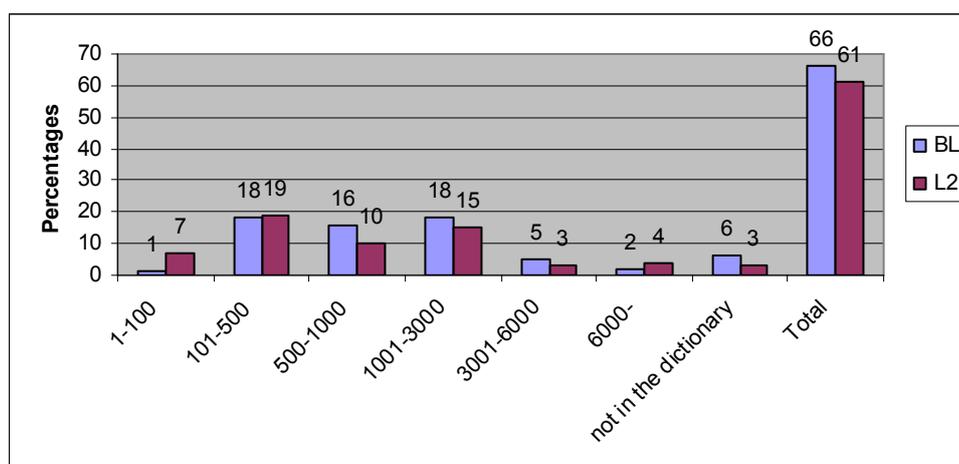


Figure 5.7. Percentages of individual lexemes of all verbal lexemes in essays in different rank intervals of bilinguals (BL) and classroom learners (L2).

Figure 5.7. shows that both groups had many individual verbal lexemes in all the rank intervals between 101 and 3,000 of the most frequent verbs (the pillars 101-500, 501-1,000 and 1,001-3,000). The verbal lexemes had a wider distribution in the essays, when compared to the oral tasks, as already indicated in Tables 5.12 and 5.13. This meant that the number of individual lexemes was higher in the written tasks than in the orals.

5.4.2. Shared and unshared lexemes between informant groups and between tasks

In this section, I will compare the lexemes at the different rank intervals that were shared by both of the informant groups with the lexemes that were used by only one of the two informant groups. Rank intervals are defined according to the *FD*. Again, I did not distinguish between the two oral tasks, but I will point out, in some cases, which lexemes were used only in the comics and which were used only in the interview. I will also comment on how much the verbal lexemes were used both in the oral tasks and the written tasks, and I will present some interesting differences in the informants groups. I also compare the verbal lexemes in the production of the classroom learners to the verbal lexemes in the textbooks of Slotte. Individual verbs are presented in Appendices 15 and 16.

Figure 5.8 shows the shared and unshared verb lexemes in the informant groups in the oral tasks, and Figure 5.9 presents the same information for the essays:

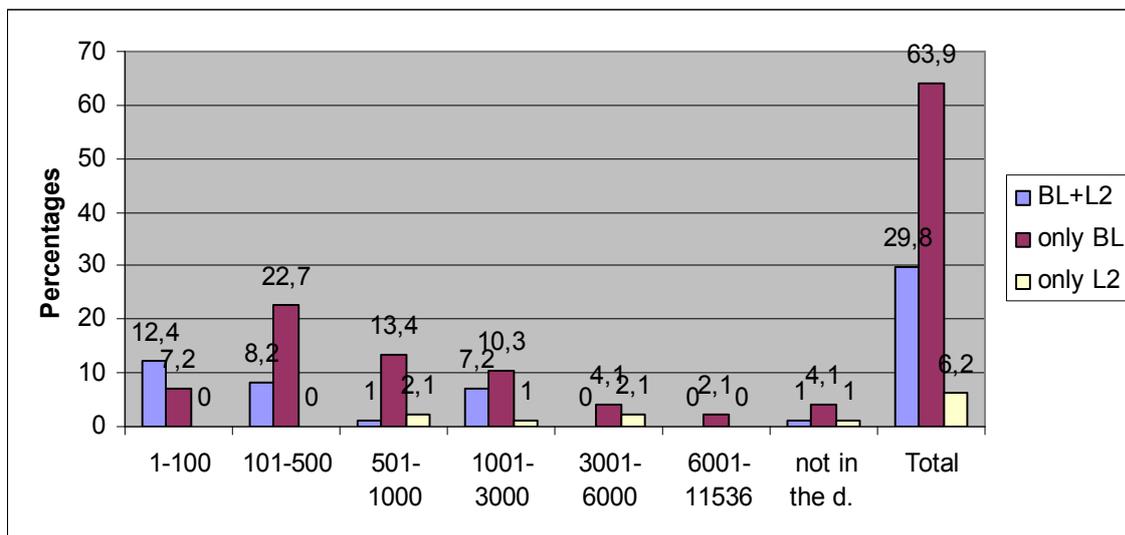


Figure 5.8. Shared and unshared verb lexemes between informant groups in percentages of all verb lexemes in oral tasks in different rank intervals compared to *FD*. Not in the d. = Not in the dictionary. Shared verb lexemes were lexemes used in both groups (= BL+L2); unshared verb lexemes occurred only in the bilinguals (only BL) or only in the classroom learners (= only L2).

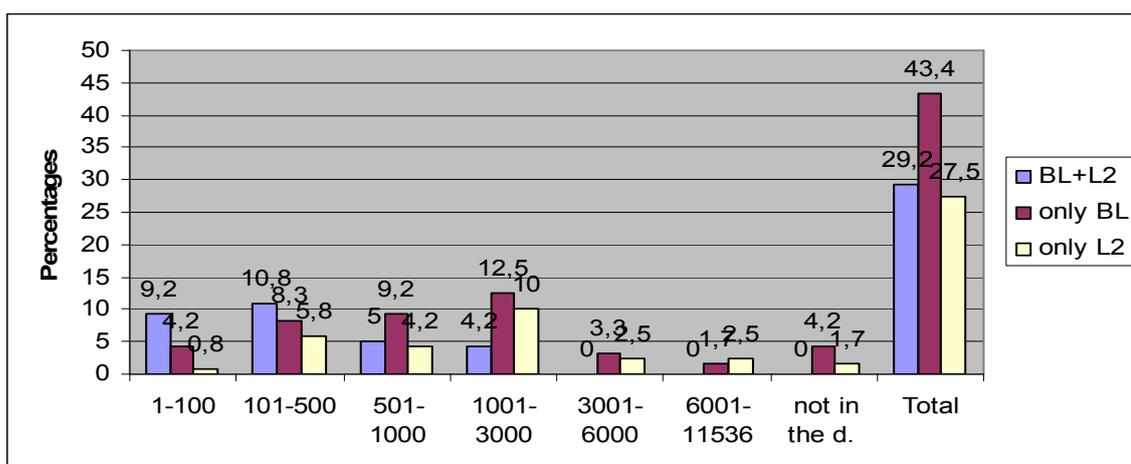


Figure 5.9. Shared and unshared verb lexemes between informant groups in percentages of all verb lexemes in essays in different rank intervals compared to *FD*. Not in the d. = Not in the dictionary. Shared verb lexemes were lexemes used in both groups (= BL+L2); unshared verb lexemes occurred only in the group of bilinguals (only BL) or only in the group of classroom learners (= only L2).

The classroom learners had quite a few lexemes of their own in the oral tasks. The most frequent words in the rank interval 1 to 100 were all shared verbs between the classroom learners and the bilinguals in the oral tasks. In the written tasks, the classroom learners had only one own verb in the interval with the most frequent verbs (*tapahtua*, ‘to happen’). The classroom learners used the same verbs in the oral and the written tasks, with the exception of the following verbs: *pitää*, ‘must, to like’ and *käyttää*, ‘to use,’ which they used only in the written tasks. Only the bilinguals used these two verbs in the oral tasks.

In addition, the bilinguals used the same verbs in the oral and the written tasks in the rank interval with the most frequent verbs (1 to 100). The only exception was the modal verb *joutua*, ‘to be compelled to,’ which was used by only one of the bilinguals in the essays.

The bilinguals had 7 verbal lexemes in the rank interval 1 to 100 that the classroom learners did not have in the oral tasks. Three of these were modal verbs: *voida*, ‘can, be able to’; *pitää*, ‘must’; and *saattaa*, ‘may’, though the verb *pitää* also had other uses.

In the next rank interval 101 to 500, there were some less shared verbs than in the interval with the most frequent verbs in the oral tasks. Shared verbs in the groups were, for example, *asua*, ‘to live,’ and *ajaa*, ‘to drive,’ used in the interview by both of the groups. The bilinguals had the most lexical verbs in this rank interval: 30 verbs, or about 33% of their lexical verbs, occurred in this interval in the oral tasks. Again, the classroom learners did not have any verbs that the bilinguals did not use in the orals.

The bilinguals used several speech act verbs (*puhua*, ‘to speak, to talk’; *kertoa*, ‘to tell’; *kysyä*, ‘to ask’) and especially cognitive verbs (*uskoa*, ‘to believe’; *yrittää*, ‘to try’; *tuntea*, ‘to know’; *muistaa*, ‘to remember’; *huomata*, ‘to notice’; *ymmärtää*, ‘to understand’; and *osata*, ‘be able to’) in rank interval 101 to 500 in the oral tasks. These verbs are relatively frequent in Finnish. Many perception verbs are also frequent and such verbs as *näyttää*, ‘to look,’ and *näkyä*, ‘to be seen,’ belong to this rank interval. The bilinguals use these verbs in the orals, but the classroom learners did not.

In the rank interval 101 to 500, there were several verbal lexemes used in the oral tasks and the written tasks by both of the informant groups. In the written tasks, the classroom learners had many verbs not used by the bilinguals in this rank interval. The situation was different than in the orals, and one may conclude that the distribution of the verbs in the written tasks was wider than in the oral tasks.

In the rank interval 501 to 1,000, there was only one shared verbal lexeme in the two groups in the oral tasks (*syödä*, ‘to eat’). Other than this verb, the classroom learners had only two verbs in this rank interval in the orals. Among the verbs of the bilinguals were several speech act verbs (*keskustella*, ‘to discuss’; *selittää*, ‘to explain’; and *huutaa*, ‘to shout’) in the orals. In the written tasks, there were verbs belonging to many different semantic classes in this interval; however, no special group of verbs seemed to be more frequently used in any of the informant groups.

The next rank interval, 1,001 to 3,000, was the rank interval where there was a jump upwards in the production of the classroom learners, as described in Table 5.9. So, the classroom learners had many verb tokens in this rank interval in all tasks; actually, they had even more verb tokens than the bilinguals in the comic strips and the essays, and the same number of verb tokens in the interview. However, the bilinguals had more verbal lexemes used only by this group in the essays. The total number of verbal lexemes was 17 in this rank interval in the group of the bilinguals, but only 8 in the group of the classroom learners in the oral tasks. In the essays, the bilinguals had 20 verbal lexemes in this rank interval, whereas the classroom learners had 17 (look at Appendices 13 and 14).

The high frequency of verbs belonging to this interval in the group of the classroom learners was basically the result of the frequent use of the motion verb *kävellä*, ‘to walk,’ in the comic strips and the essays. This verb was used 13 times by the classroom learners in the comic strips, but only once by the bilinguals (look at Table 5.11). This verb belonged to the top 10 verbs also in the written tasks in the group of classroom learners, and it was used 9 times by the classroom learners, but only once by the bilinguals (look at Table 5.12). As mentioned earlier, this verb seems to have been used extensively by the classroom learners. The verb *juoda*, ‘to drink,’ was used several times by the classroom learners in the comic strips, when compared to the bilinguals. The verb *nukkua*, ‘to sleep,’ was used often by the classroom learners in the interview; the bilinguals did not use this verb at all in this task. Consequently, the classroom learners had fewer verbal lexemes in this rank interval, but they used some of these verbs more frequently than the bilinguals did. It seems that the classroom learners had learned some of these verbs better in comparison to other, more frequent verbs in Finnish (look also at Figure 5.4).

There were more verbal lexemes in both groups in the essays than in the orals in the rank interval from 1,001 to 3,000 of the most frequent verbs, but there were quite a few shared verbs between the groups in this interval in the written tasks. The shared verbs between the groups in the essays were *herätä*, ‘to wake up’; *kävellä*, ‘to walk’; *nukkua*, ‘to sleep’; *pelata*, ‘to play’; and *paistaa*, ‘to shine’; these verbs, except the last one, also were used by both

groups in the orals. The fact that these verbs were used in both tasks by the classroom learners indicates that they had learned the verbs in this rank interval especially well.

In the rank intervals including words less frequent than the 3000 most frequent words in Finnish, there was only one shared lexeme between the groups, namely, *pyöräillä*, ‘to cycle,’ in the orals. This verb was not included in the *FD* at all. Actually, many of the verbs not in the *FD* may be frequent verbs in oral language. This is why they do not belong in the *FD*, which is based on written language for the most part. The low-frequency verbs were not shared verbs between the groups, and they were usually the individual verbs of the informants. The only exception was the verb *ratsastaa*, ‘to ride,’ which 2 of the classroom learners used. The low-frequency verbal lexemes are presented in more depth in chapter 5.5.3.

The numbers of shared and unshared verb lexemes between the oral tasks and the essays are presented in Table 5.15:

Table 5.15

Shared and unshared (= only in orals/only in essays) verbal lexemes between oral tasks and essays in different rank intervals presented in *FD* of bilinguals (BL) and classroom learners (L2). Percentages of shared lexemes are counted from all lexemes in the interval.

	Only in the orals	Only in the essays	Shared in both tasks	Total in both tasks	Shared lexemes in %
BL					
1-100	4	1	15	20	75
101-500	18	11	12	41	29,3
501-1000	6	9	8	23	35
1001-3000	10	13	7	30	23,3
3001-6000	4	4	0	8	0
600- - 11536	2	2	0	4	0
Not in the dictionary	4	4	1	9	11,1
Total	48	44	43	135	31,9
L2					
1-100	3	3	9	15	60
101-500	1	13	7	21	33,3
501-1000	0	8	3	11	27,3
1001-3000	2	11	6	19	31,6
3001-6000	1	2	1	4	25
600- - 11536	0	3	0	3	0
Not in the dictionary	2	2	0	4	0
Total	9	42	26	77	33,8

Table 5.15 demonstrates that the classroom learners had not learned the most frequent verbs in Finnish properly because they used 15% fewer shared lexemes in the oral and the written tasks in the interval with the most frequent verbs (the 100 most frequent) when compared to the bilinguals. Again, the classroom learners had a higher percentage of shared verb lexemes in the rank interval 1,001 to 3,000 when compared to the bilinguals, which confirmed the earlier result that some of the verbs in this rank interval were verbs that the classroom learners had learned properly. In percentages, the classroom learners used only some shared verbs in these two types of tasks compared to the bilinguals, which may indicate that many verbs in the essays were found using a dictionary. The high number of verbs used only in the essays supported the same fact.

The comparison of the verb lexemes in the production of the L2 learners to the verbal lexemes in the textbooks of Slotte (1987; 1991) used in the classroom demonstrated that almost all the verbal lexemes used in the oral tasks were verbal lexemes coming from the first volume of the textbook (Slotte 1991). In the essays, verbal lexemes came from the first and second volumes of the textbook, but verbs not found in any of the textbooks also were used. In percentages, 89% of the verbal lexemes in the orals were those verbs used in the first volume of the textbook, only 6% were verbs used only in the second volume; 6% of the verbs could not be found in any of these volumes. The corresponding percentages in the essays were 66 %, 16 % and 18 %. This result showed that the verbs in the first volume of the textbook were better remembered by the informants than were those verbs in the second volume of the textbook, and also because many of the same verbs occurred in both volumes. Beside the verbs used in the textbooks (Slotte 1987; 1991), other verbs used by the informants could possibly have occurred in the classroom. One example is the verb *pyöräillä*, ‘cycle,’ a verb that was not presented in the textbooks, but was used by one of the classroom learners in the orals.

5.4.3. Low-frequency verbal lexemes in oral and written tasks

Figure 5.10 presents the numbers of low-frequency verbal lexemes in the production of the informants. Low-frequency lexemes are the verbal lexemes that are less frequent than the 3000 most frequent words presented in the *FD*. In addition, the verbs that are not included in the *FD* are considered low-frequency words.

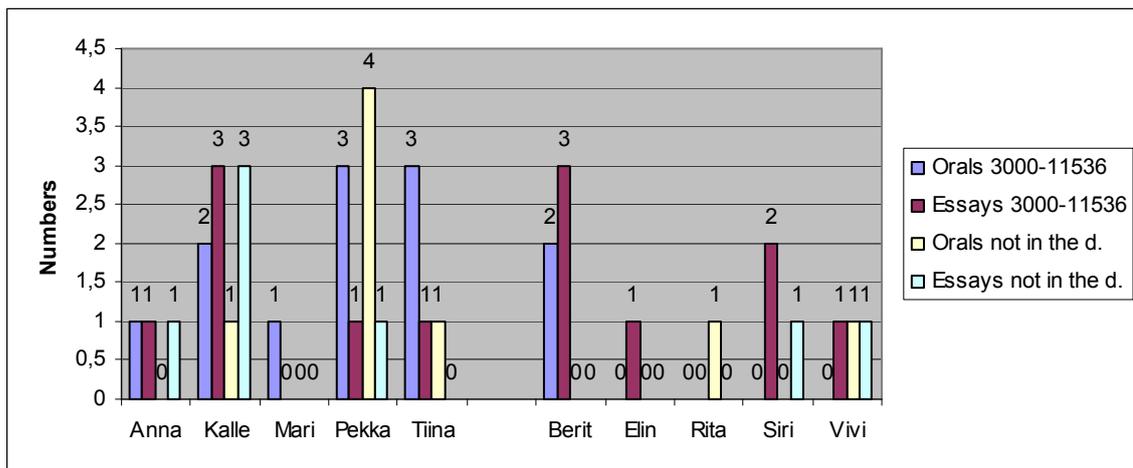


Figure 5.10. Number of low-frequency verb lexemes in oral and written tasks. Verbs in the rank interval 3,000 to 11,536 according to the *FD*. Not in the dictionary = not in the *d.*

The bilingual informants Anna and Mari, in particular, had fewer low-frequency verbal lexemes than the other bilinguals. In the group of classroom learners, there were quite a few low-frequency verbal lexemes, with most of them being in the written tasks.

Verbs not in the *FD* may sometimes be verbs that are more frequent in oral Finnish than in written language. Such oral verbs are, for example, the verbs *ruukata*, ‘to have a habit’; *hölkätä*, ‘to jog’; and a dialect word, *tupista*, ‘to mumble, used by the bilinguals in the oral tasks. The first one is a loan word from Swedish. The verb *treenata*, ‘to train,’ which was used by Rita in the oral tasks, is a Scandinavian loan verb in Finnish that may be more usual in oral styles than in written styles.

Even many of the verbs not included in the *FD* that the bilinguals informants used in the essays seemed to belong to the oral style, for example, *kehdata*, ‘to care to, to bother to’; *startata*, ‘to start’; *kiehuttaa*, ‘to cook’; and *purskata*, ‘to rinse.’ Because the verbs not included in the *FD* may be frequent verbs in oral language, the low-frequency verbal lexemes that are less frequent than the 3,000 most frequent verbs in Finnish and are included in the *FD* may be more significant than many verbs that do not occur in the *FD* when the number of low-frequency verbal lexemes in the production of the informants is discussed.

5.5. Results of verb identification task compared to verb vocabulary size in oral tasks as well as verb frequencies

In this section, the verbal vocabulary size in the oral tasks and the results from the verb identification tasks are compared. This means that the method of triangulation of sources is used because results of different tasks are compared to each other (see section 4.1). In section 5.5.1, I explain how the informants identified real Finnish verbs and nonsense verbs in the verb identification task. I also demonstrate how many of the real Finnish verbs identified by the classroom learners were verbs used in the textbooks of Slotte. Appendix 17 presents the verbs identified by the informants in the verb identification task; in the same appendix the verbs that occur in the text books of Slotte (1987, 1991) are marked. In section 5.5.2, I

demonstrate how the informants were able to identify Finnish verbs according to their frequencies in the verb identification task.

5.5.1. How informant groups and individuals identified real Finnish verbs and nonsense verbs

In Figure 4.11., the number of incorrect identifications of real Finnish verbs is compared with the number of verbal lexemes of the informants in the oral tasks. The figure also presents the numbers of nonsense verbs chosen as Finnish verbs by the informants.

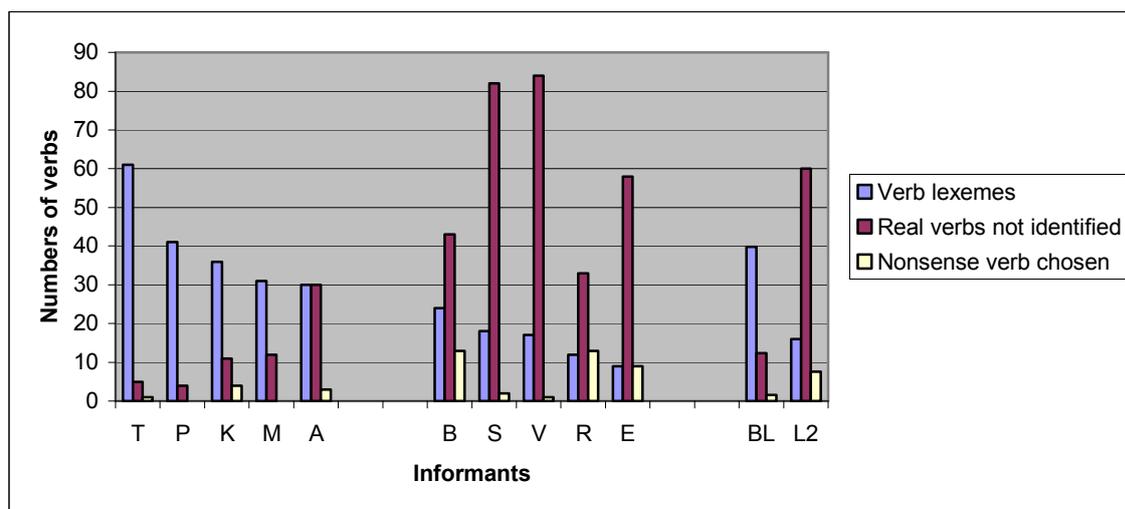


Figure 5.11. Number of verb lexemes in oral tasks compared to incorrect choices of real Finnish verbs and choices of nonsense verbs as Finnish verbs in verb identification task.

All of the informants had some real Finnish verb forms that they could not identify as Finnish verbs. Figure 5.11 shows a negative correlation between the number of verb lexemes in the oral tasks and the number of incorrect choices of real Finnish verbs in the verb identification task completed by the bilinguals. Tiina and Pekka were the only exceptions in this correlation: Tiina has a higher number of real verbs that she could not identify, but she also had a higher number of verbal lexemes than Pekka.

Concerning the classroom learners, the correlation between the number of lexemes in the orals and the number of real verbs not correctly identified in the verb identification task was unclear. Two of the informants seemed to have chosen many verbs incorrectly as Finnish verbs, and yet these informants had the second and third highest number of verbal lexemes in the oral tasks of this informant group.

Informants from both of the groups chose some nonsense verbs as Finnish verbs. The correlation between incorrectly chosen nonsense verbs and vocabulary size was unclear. Even Tiina chose some nonsense verbs as real Finnish verbs, although her number of verbal lexemes was the highest among the bilinguals. On the other hand, Mari did not choose any nonsense verb at all, although her verbal vocabulary in the orals was smaller compared, for example, to Tiina's.

In the group of classroom learners, the informants with the largest number of incorrect identifications of real Finnish verbs chose fewer nonsense verbs compared to 3 other informants. It seems, then, that these 2 classroom learners chose different strategies once they decided which verbs were Finnish verbs and which verbs were not, when compared to the other classroom learners. Siri and Vivi seemed to apply a restricted strategy when choosing Finnish verbs, which was contrary to the 3 other classroom learners, who seemed to have used a more inclusive strategy.

Meara pointed out that the problem in vocabulary tests comparable to the present test is that some informants are more than willing to choose the nonsense word and that such behaviour seems to be a major difference between informants who participate in this type of vocabulary test. Meara concluded that the behaviour of the informants influences this task (1996: 43-44). The same conclusion can be drawn in regards to the classroom learners in the present study. An inclusive strategy meant that some of the classroom learners chose many nonsense verbs; besides that, they also chose many Finnish verbs correctly in the verb identification task. Why some of the bilinguals also chose nonsense verbs is not easy to explain because in this group, the numbers of incorrectly identified real Finnish verbs and nonsense verbs did not coincide.

In Appendix 17, the verbs that occur in the textbooks of Slotte (1987; 1991) are marked. Almost all the verbs correctly identified as Finnish verbs by the classroom learners were verbs that occurred in the first volume textbook of Slotte (1991), the only exception being the verb *ajatella*, 'to think.' The verbs occurring only in the last volume were identified less often. Verbs not presented in the textbooks of Slotte were all relatively badly identified. There were 300 verb forms of real Finnish verbs not identified in the group of the classroom learners, and of these forms, 53 % were verbs that are not in Slotte's textbooks, 32 % were verb forms that only occur in the second volume of the textbook, and 15 % were verbs only used in the first volume.

Appendix 17 demonstrates some differences between active-productive and passive-receptive vocabulary knowledge of the classroom learners (see Ringbom 1990 and chapter 4.). Some verbs not used by the informants at all were still well identified. Such a verb was the verb *hypätä* 'to jump' which occurs relatively often in the first volume of Slotte (see appendix 12). Another verb is the verb *ajatella*, 'to think,' which was not used by the classroom learners either. Another verb is *ajatella*, 'to think,' which was not used by the classroom learners either. This verb was not a frequent verb in the textbooks, but it could have been used, for example, in grammar exercises in the classroom. As Tables 5.13 and 5.14 show, not any of the informants used the modal verb *voida*, 'can,' either in their oral or written production, but still, this verb was relatively well identified because only 3 forms, or 15%, of the verb forms were not identified by the informants. The verb *voida* was first presented in the second volume of the textbook of Slotte (1987), but it is frequently used in many texts of this volume (e.g., on pp. 33 and 36).

5.5.2. Real Finnish verbs not identified as Finnish verbs in different rank intervals

Verbs in the verb identification task belonged to different rank intervals. There were 12 verbs belonging to rank interval 1 to 100, 18 verbs in rank interval 101 to 1,000,¹¹ 9 verbs in rank interval 1,001 to 3,000, and 7 verbs in rank interval 3,001 to 11,536. The task also showed if the informants could identify the more frequent verbs more easily than they could identify the less frequent verbs. Figure 5.12 illustrates how the groups identified the real Finnish verbs in the verb identification task in different rank intervals. Figure 5.13 identifies the individual informants.

¹¹ There are 16 verbs in the rank interval *101-500* and 2 verbs in the rank interval *501-1000*. Therefore, these two categories are presented as one category.

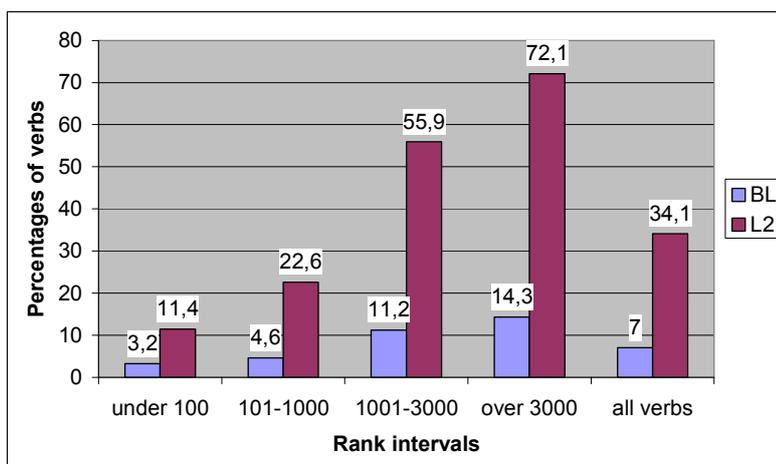


Figure 5.12. Percentages of real verbs not identified as real Finnish verbs in verb identification tasks in different rank intervals compared to *FD* (BL = bilinguals, L2 = classroom learners).

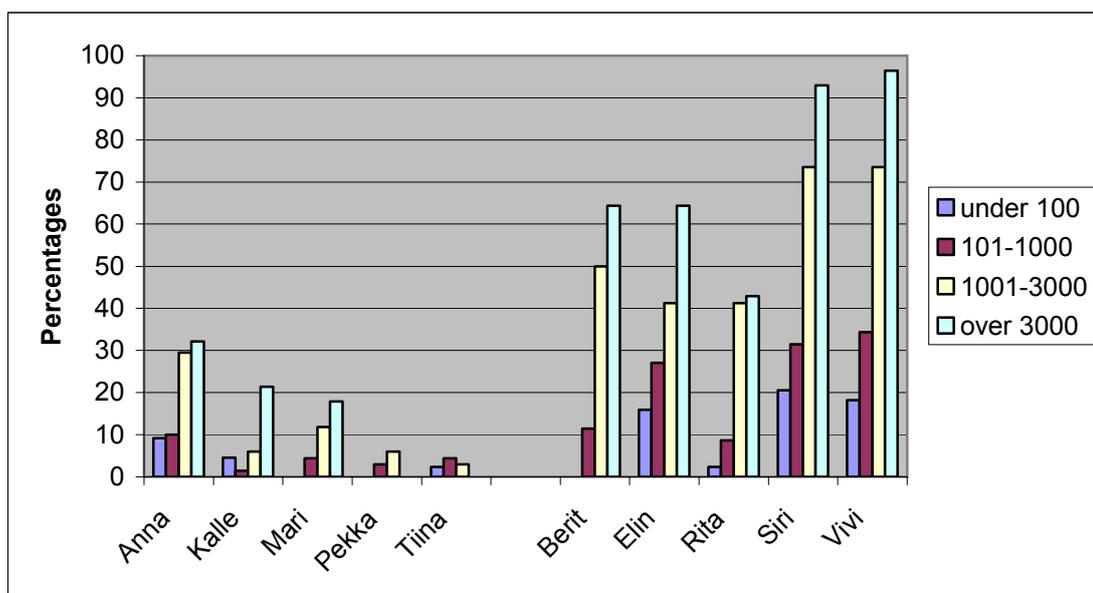


Figure 5.13. Percentages of real verbs not identified as Finnish verbs in verb identification task by individual informants in different rank intervals compared to *FD*.

In both informant groups, the informants had more difficulty identifying the low-frequency verbs than the high-frequency verbs (see Figure 5.12). The percentage of verbs not identified as Finnish verbs increased cumulatively from high-frequency verbs to low-frequency verbs.

Figure 5.13 shows how individual informants identified real Finnish verbs in the different rank intervals. With few exceptions, the percentages of verbs not identified as Finnish verbs increased cumulatively from high-frequency verbs to low-frequency verbs, as far as the individual informants are concerned. Only the figures for Pekka and Tiina were not cumulative.

If one compares this figure with Figure 5.10, it is possible to see that the informants who produced few verbs in the rank intervals with low-frequency verbs actually are those who also had some difficulty identifying the forms of low-frequency verbs. The figures for Anna and Mari showed this. Their figures were cumulative, that is, the percentages of verbs they did not identify as real Finnish verbs, increased with the infrequency of these verbs. Figure 5.10 (look also at Appendices 8 and 9) demonstrates that they both produced a small number of verbal lexemes that were less frequent than the 3,000 most frequent verbs in Finnish.

The figures for Tiina and Pekka were not cumulative figures, but they seemed to have some difficulty identifying some forms of verbs. They did not seem to have problems identifying the low-frequency verbs in the verb identification task, and they actually had more verbs in comparison to Anna and Mari in the two rank intervals with the less frequent verbs (Figure 5.10).

The figure for Kalle also was cumulative, indicating that he had more problems identifying low-frequency verbs than high-frequency verbs. Still, Kalle had the largest verbal vocabulary in the written tasks. He had quite a few verbal lexemes in the rank intervals, including verbs that were less frequent than the 3,000 most frequent verbs, especially in the essays. Therefore, the correlation between the verb identification task and Kalle's production was unclear. On the other hand, he also chose more nonsense verbs as Finnish verbs than the other bilinguals, perhaps indicating some uncertainty about his knowledge of vocabulary (look at Figure 5.11).

All of the classroom learners' figures were cumulative, demonstrating that they had more difficulty identifying the low-frequency verbs as Finnish verbs. Only one of them was able to identify all of the most frequent verbs in Finnish. Again, this figure seemed to support the observations made earlier concerning the poor knowledge of the most frequent verbs of Finnish in this informant group. There seemed to be many forms of the most frequent verbs in Finnish that the classroom learners were unable to identify, even though they identified the frequent verbs more often than they identified the less frequent verbs.

5.6. Discussion

The analysis of verbal vocabulary size in different tasks demonstrated that the task influenced the production. Oral usage of language seemed to be a more demanding situation than the written language production situation. In the written tasks, the production of the classroom learners equalled the production of the bilinguals when compared to the orals concerning the number of verbal elements in the production. Even though the use of a dictionary undoubtedly helped the classroom learners in the essays, other facts made a writing situation easier than oral production, for example, the use of time. As Hulstijn (2002: 210) pointed out, "Explicit knowledge is especially helpful in situations allowing careful monitoring of the information to be understood or produced, for example in situations of reading or writing without time pressure." The interview seems to have been the most demanding task, even more demanding than the comic strip tasks, because this task required a more independent use of language than the discussions about the comic strips.

The number of lexical verbs rather than verb tokens was different between the two informant groups: None of the classroom learners produced more verbal lexemes than the bilinguals in the oral tasks. Lexical richness is often presented using the Guiraud Index, which takes into account the relationship between the lexemes and the verb tokens, as well as the length of the production. The Guiraud Index is presented as a reliable indicator of lexical richness (Grönholm 1993: 114-115; Voionmaa 1993: 130-132), but the present study demonstrated that because it was a quantitative instrument, it was not possible to catch the more qualitative characteristics of the verb vocabulary by using it. Individual lexemes or lexemes used by only one of the informants represented a more qualitative approach to lexical richness because individual lexemes most often were low-frequency lexemes. When comparing the Guiraud Index and the number of individual lexemes of informants, the values of the Guiraud Index were misleading in some cases. However, the Guiraud Index distinguished between the informant groups in the different tasks. Still, the problem with the Guiraud Index also seems to be that the index values of lexical richness are not comparable between different tasks. A high index value usually indicates a good lexical richness, but in the interview, it sometimes indicated that the informants had given short answers to the questions.

The informant groups were compared in regard to output frequencies of verbs in their oral and written production, and the output frequencies were then compared to the verb frequencies presented in the *FD*. Even if the comparison may have been problematic because the frequencies in oral language use may well have been different than the frequencies in the *FD*, the *FD* still helped to identify which verbs were frequent in Finnish, and which were not. Because the bilinguals seemed to follow these frequencies, with quite a few exceptions in the oral tasks, the expectation that the *FD* proved useful seems to have been correct. So, it seemed that the output frequency of the bilinguals followed the input frequencies which were identified using the *FD*. The output frequencies in the classroom learners' production, in contrast to that of the production of the bilinguals, were not in accordance with the frequencies in the *FD*. One clear result is that the classroom learners used the most frequent verbs in Finnish less often than the bilinguals, except for the most frequent verb in Finnish, namely, the verb *olla*, 'to be,' and some other verbs. Also, the fact that the most frequent verbs of Finnish were less often shared verbs between the oral tasks and the essays in the classroom learners, as compared to the bilinguals, indicates that the classroom learners knew the most frequent verbs in Finnish imperfectly.

The deficient knowledge of most frequent verbs of Finnish demonstrated by the classroom learners was also reflected in the fact that they had fewer so-called nuclear verbs (see Viberg 1993) than the bilinguals in the list of their most frequent verbs. Even if the total percentage of nuclear verbs was not so different in the informant groups, resulting from the classroom learners' overuse of the verb *olla*, 'to be,' and the verb *haluta*, 'to want,' the nuclear verbs were more central, especially in the oral production of the bilinguals. It also was an interesting finding that the nuclear verbs were used more frequently by those 2 bilinguals who seemed to have a smaller vocabulary than the other informants in this group. This demonstrated that the nuclear verbs are important in the informal learning context, as Viberg (1993) also suggested. The nuclear verbs may be representative of prototypes of verbs

(Viberg 1993: 347; see also Berggreen& Tenfjord 1999:82). According to Croft and Cruse (2004:78), children learn the prototypical members of categories before more peripheral members, but the writers also pointed out that this may be because of the frequency of the prototypical members.

Still, the output frequencies of the classroom learners especially in the oral tasks were also influenced by the input frequencies, because among the verbs that they used frequently in the orals there were many verbs used frequently in the first volume of Slotte (1991), a textbook in two volumes used in the classroom. The verb *olla* is used very frequently in the first volume, but many other frequent verbs of Finnish are used to a bigger amount in the second volume. For example, the first volume does not present all the nuclear verbs because the modal verbs *voida*, 'can,' and *täytyä*, 'must,' are presented only in the second volume. Another frequent Finnish verb, *pitää* 'must,' is only used in the meaning 'to like' in the second volume of Slotte, though it also has a modal meaning 'must' in Finnish. So, the input frequencies seemed to affect the learning of the vocabulary in the classroom, a result that was in accordance with the view that frequency does matter in vocabulary learning, as suggested by Tomasello (2003:122). As he also pointed, the very first verbs of the children were not necessarily the most frequent verbs of language, but rather those used frequently with the children in communication with the adults. The present study did not investigate which verbs were used frequently orally in the classroom, but one may still expect that the verbs in the learning materials were those used in the discussions between pupils and the teacher in the classroom context.

Almost all the verbal lexemes that the classroom learners used in the oral tasks were verbs presented in the first volume of Slotte (1991). In the essays, they used more verbal lexemes from the first volume than they used from the second volume. They identified more clearly the verbs that occurred in the first volume than those that only occurred in the second volume (Slotte 1987) in the verb identification task. These results demonstrated that the informants had better recall of the verbs in the first textbook, which is natural, because many of the verbs were used in both textbooks and repetition is an important factor in the process of learning words from texts (Golden 1998: 119). Tomasello (2003: 81) concluded that general learning processes are at work in learning words because many repetitions, not mass practice, has been identified as being more effective when learning words, as is the case in other types of skill learning.

In the oral tasks, the classroom learners produced only a few verbal lexemes that were not used by the bilinguals; in the written tasks, they produced a higher number of verbal lexemes not used by the bilinguals at all. This shows that the distribution of the verbal vocabulary was larger in the essays than in the oral tasks. Also, figures for the shared and individual lexemes (Figures 5.4 and 5.7) in the informant groups demonstrated this same difference of distribution between the written and the oral tasks. The verbal vocabulary of the classroom learners was more uniform than the verbal vocabulary of the bilinguals: The classroom learners shared a higher number of the same verbs than the bilinguals both in their oral and written production, which was only natural because their verb vocabularies were based on the

same learning materials (See, for example, Grönholm 1993). The 10 most frequent verbs in the production of the classroom learners comprised a higher percentage of their total production compared to the bilinguals, a result that also indicated that their verbal vocabulary was more uniform compared to the bilinguals. Viberg (1993: 257, 353) found out a similar tendency when he compared the production of the L2 informants to the production of L1 informants.

Were the size and the frequencies of the verbs in the production of the informants really indicative of how large their verbal vocabulary was? To get a more valid result, a triangulation of sources (see section 4.1), meaning comparing results from different tasks to each other, was used. When one compares the number of verbal lexemes in the orals and the number of incorrect identifications of real Finnish verbs that the informants made in the verb identification task, the result is a negative correlation between these elements in the group of bilinguals. This result supported the supposition that the number of verbal lexemes in the production of the informants actually revealed something about the size of their vocabularies more generally. Still, the number of nonsense verbs chosen by the bilinguals did not correlate with the number of verbal lexemes in their production.

Because the two bilingual informants who were not able to identify the low-frequency verbs of Finnish were the same ones who had only a very few verbs belonging to the low-frequency verbs in Finnish in their production, this seemed to demonstrate that the size of verbal production also revealed something about the size of their verbal vocabulary more generally. However, interpreting the results concerning all the bilingual informants in regards to the verb identification task compared to the production tasks is not easy: The informant with the largest production in the essays still had some problems to identify low-frequency verbs in the verb identification task.

Because 3 of the bilingual informants chose more high-frequency verbs as Finnish verbs correctly, when compared to low-frequency verbs, in the verb identification task, one may conclude that word frequency is one factor in determining how easy or difficult it is to recognize a word. In other words, high-frequency words are better remembered as for example Bybee (2003: 5) pointed out. Two of the bilinguals made an exception because they identified all the low-frequency verbs in the task but had some problems only with a few forms of some other verbs. These informants demonstrated good vocabulary knowledge in other tasks, and their errors seemed to demonstrate that they had problems identifying only some special verb forms of Finnish correctly in the verb identification tasks.

In the group of classroom learners, the correlation between the number of verbal lexemes in the oral tasks and the number of real Finnish verbs they chose correctly in the verb identification tasks remains unclear. This situation seems to be based on different strategies used by the classroom learners in this task. Those who used an inclusive strategy chose many verbs as Finnish verbs, and these informants also included many nonsense verbs as Finnish verbs. Those who used a restricted strategy chose few verbs as real Finnish verbs, but they also chose a few nonsense verbs.

The identification of high-frequency verbs was better compared to the identification of low-frequency verbs in the classroom learners. This fact correlated with the fact that the classroom learners actually used few verbs other than those belonging to the 3,000 most used verbs in Finnish, so they did not have many low-frequency verbs in their production. This situation was related to the fact that many high-frequency verbs in the verb identification task identified easily by this group had already been presented in the first volume of the textbook of Slotte (1991). As already pointed out, these verbs seemed to be better remembered by the classroom learners; the verbs they did not identify as well were verbs that were presented in the second volume of Slotte (1987). The verbs that were identified badly were most often verbs that did not occur in their textbooks at all.

A comparison of the verb identification task and the verbal production of the classroom learners revealed that there was a difference between productive and receptive knowledge of verbs. Even though the classroom learners did not use many verbs in their oral production, they were still able to identify many common Finnish verbs that are presented in the first volume of the textbook of Slotte (1991) most often. The classroom learners as a group used only some 30% of the verbs that were presented in this textbook in the oral tasks, but their receptive verb vocabulary seemed to be bigger. So, not all input became intake (see, for example, Gass 1997: 25).

On the basis of the material, it is possible to conclude that frequency was one factor that affected the word learning in both informant groups, and the input frequency of verbs explained why some input became intake. This result was in accordance with the view of that frequent words of language are easy to access (Bybee 1995:428). Frequent elements become intake because they are likely to be noticed (Gass 1997:17). Two of the bilinguals in particular, those with smaller vocabularies compared to the other bilinguals, used the high-frequency verbs more often and also identified them better than they were able to do with the low-frequency verbs. In their production, there were a higher percentage of nuclear verbs compared to that of the other informants. Why the verb frequencies in the production of the classroom learners were different from the frequencies in the production of the bilinguals can be explained by the textbook used in the classroom. This textbook presents a modified input with a strong overuse of the most usual verb in Finnish, the verb *olla*, while some other frequent verbs of Finnish do not occur at all. One form of modified input in the classroom is the modification of teaching materials aimed to make the learning process easier (Gass 1990, 2003.) I will come back to the question regarding how modified input can affect the learning in the next chapter, when I explain how the informants used verbs belonging to different semantic frames. I will show how the informants used individual verbs in their production, and I will discuss any other reasons besides frequency that may affect the learning of verbs.

6. VERB SEMANTICS AND KNOWLEDGE OF VERBS

6.1. Verb semantics and learning of verbs

I used Pajunen's classification to describe the semantic analysis of the verbs used by the informants in the oral tasks and the essays in chapter 6. It is possible to understand Pajunen's semantic classification in relationship to frame semantics (Fillmore 1985; here according to Croft & Cruse 2004: 7-14), as argued in Section 6.1.1. In Section 6.1.2, I will present the classification of Finnish verbs using Pajunen's classification, and I will compare her classification to the classification of Swedish verbs presented by Viberg (1999). Pajunen's classification is based on the ontological semantic description of verbs, and the verb argument structure is seen as the result of verb semantics. In Section 6.1.3, the verb argument structure is connected to the construction grammar approach, a usage-based model of syntax, as presented in Goldberg (1995) and Croft & Cruse (2004). In Section 6.1.4, I explain how semantic characteristics of verbs are seen to affect first language learning.

6.1.1. Ontological semantic classification of Pajunen and the semantic frame theory

Cruse (2000: 96-97) distinguished between the one-level and the two-level approaches to lexical semantics. The main question is to ask if there is a distinction between semantic or linguistic meaning and encyclopaedic knowledge of the world. Those who believe that there is a distinction represent the two-level approach. They believe that knowledge of the word is extralinguistic; this means a property of concepts, but not a property of language elements. According to the one-level approach, this kind of clear separation is not possible. Linguistic meaning and encyclopaedic meaning are seen as a continuum (also see Taylor 1995: 81-83). Cruse called this the conceptual approach (2000: 100-101), and most cognitive linguists represent this view because the semantic description of the verbs in Pajunen (2001) is based on the *conceptual structure*, which can be interpreted as abstractions of the structures found in the real world (op.cit. 19, 33). Also according to her interpretation, meaning is conceptual, a view in accordance with the view of cognitive linguistics presented by Cruse.

The semantic field is a theory of structural semantics, and it represents a two level approach, as described by Cruse (2000). In structuralism, language forms a system of its own; consequently, words are seen in relationship to each other rather than in relation to the conceptual structure in field semantics. Meaning is context dependent in structural semantics, but the context is language internal, that is, a matter of paradigmatic and syntagmatic relationships between words. Paradigmatic relations are different kinds of semantic relations that express identity and inclusion or opposition and exclusion. The former kinds of relationships are hyponymy, meronymy, and synonymy. The latter kinds of relationships are relationships of incompatibility, co-taxonomy, and opposites (antonymy; Cruse 2000: 145-

176). Syntagmatic relationships are relationships between words that can be used together, for example, the relationship between a verb and its arguments. (Cruse 2000: 219-235; Pajunen 2001: 29). In contrast to the view that the meaning is connected entirely to the paradigmatic and syntagmatic relationships between the words, cognitive linguistics argues that concepts and words also have a relationship to each other because they are associated with human experience. The context of meaning is also language external (Taylor 1995: 83; Croft & Cruse 2004: 7).

Fillmore's frame semantics takes into account this language-external meaning; Fillmore called it the *semantics of understanding* (Croft & Cruse 2004: 8). Even if frame semantics and field semantics share many properties, frame semantics represents a rethinking of linguistic semantics. In frame semantics, the words are not only defined in relationship to each other but also in relationship to the frame (Croft & Cruse 2004: 8-10).

In frame semantics, *frame*¹² is a cognitive structure, a language-external context of understanding the meaning of a word or other linguistic entity; frame semantics collects knowledge about how a linguistic entity is dealt with by members of the speech community (Taylor 1995: 89; Croft & Cruse 2004: 14). In many cases, a word's meaning is not understood properly in a language-internal context only because it is possible to understand a word's meaning and the concept it refers to only in relationship to the whole cognitive structure that this concept belongs to.

The semantic field theory has been applied primarily to nouns referring to concrete entities. It has not been applied as often to verbs. Syntagmatic relationships are especially important in regard to verbs, but these relationships have not been focused on by the semantic field theory as much as paradigmatic relationships have been. The latter are more characteristic of nouns. The problem in applying the semantic field theory to verbs is connected to the fact that it is often not possible to describe verbs without taking into account other words and concepts, for example, those referring to the participants in actions (Pajunen 2001: 31). Therefore, frame semantics seems to be more capable than field semantics of explaining actions that verbs refer to because frame semantics can include information about the participants of actions, as well as other relevant cultural and situational information connected to verbs (Croft and Cruse 2004: 10-11).

Frames can be general or specific. A general frame is, for example, a frame of space, which is one of the basic frames (domains) according to Croft & Cruse (2004: 24.) The verb *buy* can be understood in relation to a specific frame, namely, the commercial transaction frame. Also, the verbs *sell*, *pay*, and *cost* can be understood in this frame. Background knowledge is included in the commercial transaction frame, and the different verbs belonging to this frame select different aspects of the same frame or profile the frame differently. The distinction

¹² There are many other terms used to refer to the semantic frame. According to Croft and Cruse, Fillmore's term *frame* is identical with the term *domain* used in cognitive linguistics (2004: 9, 15).

between frame and *profile* is important because words referring to concepts select only one profile or a specific aspect of the frame. The distinction between frame and profile helps to understand semantic differences between languages. For example, *mouth* denotes the same type of profile (opening a container) in different frames. In English, *mouth* is used in frames of body, bottle, cave, and river (Croft & Cruse 2004: 16 – 20.) In Finnish, *mouth* can be used in all these frames but also in the frame of buildings and weapons because a door and a gun have a mouth (*oven suu/pyssyn suu*). In Norwegian, the word *mouth* is not used in a frame of a bottle or a cave; but a river and a gun have *munning*, a word that is a derivation of the word denoting mouth in Norwegian. As examples demonstrate, one single word can belong to different frames, and one frame can include many different concepts, but not all of them are necessarily profiled in a single utterance.

According to Pajunen, conceptual meaning is encoded in the lexicon in different ways, in the same way as frame semantics explains the meaning of words in relation to the extralinguistic frame, a conceptual structure. Thus, there are similarities based on the classification used by Pajunen, as well as frame semantics, because both regard meaning in relation to extralinguistic concepts, not only as a property of linguistic elements. An encyclopaedic view of knowledge is found both in frame semantics and in Pajunen's classification. Still, the frames of verbs presented by Pajunen are *semantic macroframes* on a general level; they are not frames of individual verbs (see Pajunen 2001: 92, footnote 2). When I present the material, I cannot give detailed descriptions of the frames of all of the individual verbs because to describe a frame structure of a word is a demanding task as a result of the encyclopaedic view of knowledge (Croft & Cruse 2004: 26; Sivonen 2005: 39.) I will focus on the semantic problems of the informants when using the Finnish verbs, and I will discuss which role the distinction between frame and profile plays when analysing the semantic errors.

6.1.2. Semantic classification of Finnish verbs

In Pajunen's classification, verbs are classified as primary and secondary types of verbs. Primary verbs are defined in regard to the concepts that refer to the language-external world: concrete or mental; secondary verbs modify the meanings of primary verbs. Latter kinds of verbs are, for example, modal verbs (2001: 52-57).

Primary A verbs lexicalise the following semantic macro frames¹³: *space*, *action*, *event*, and *motion* (in Finnish *tila*, *teko*, *tapahtuma*, and *liike* (2001: 51-57). There are also primary B verbs. Primary A verbs and primary B verbs differ in regard to how concrete these verbs are. Primary A verbs refer to the language-external world more directly than the primary B verbs. Verbs that refer to psychological space and processes as well as perceptual space and

¹³ Pajunen called the marco frames *schemas* but pointed out that they can be understood as frames. Because her analyses were based on a large material, she did not describe frames of individual verbs, but 'frames' of verb classes. (Pajunen 2001:92, foot note 2.)

processes belong to primary B verbs. In addition, speech act verbs referring to verbal communication belong to these verbs.

Besides the primary A verbs and the primary B verbs, there are secondary verbs. Secondary verbs differ from the primary verbs because they do not lexicalise semantic frames referring to the language-external world. This is exactly how the primary verbs are used: The A verbs refer to the concrete, language-external world, and the B verbs refer to the mental, more abstract reality. On the contrary, through the use of secondary verbs, one relates these macro frames, expressed by primary verbs, to each other, or one qualifies them. Modal verbs are the most important group of secondary verbs in Finnish. Besides modal verbs, aspectual verbs belong to the secondary verbs in Finnish, according to Pajunen (2001: 52).

Hakulinen & al. (2004) classified verbs as concrete, mental, and abstract on the basis of the situations they are describing or the referents they are referring to. This classification basically follows the classification presented in Pajunen (2001), that is, concrete verbs correlate with primary A verbs, mental verbs with primary B verbs, and abstract verbs with secondary verbs. Abstract verbs also include verbs expressing a relationship between issues, like *johtua*, 'to depend,' but such verbs were not mentioned as secondary verbs by Pajunen. An analysis of Pajunen (2001) actually did not concern secondary verbs, even though she mentioned those two types (modal and aspectual verbs) as secondary verbs in Finnish.

The classification of verbs into primary and secondary verbs was presented in Dixon (1991).¹⁴ According to Dixon, primary verbs are lexical verbs in all languages, whereas secondary verbs may be expressed by different means in different languages (1991: 88). Modal verbs are a central group of secondary verbs; however, modal verbs are not found in all languages. Viberg presented modal verbs as an important area-specific characteristic of European languages (1993: 348).

The macro frames of space, action, event, and motion are not cultural concepts, so verbs that lexicalise these schemas also can be found in other languages (Pajunen 2001: 53). Verbs that lexicalise the mental frame are verbs that occur in other languages, not only in Finnish. I will compare the macro frames presented by Pajunen with the semantic fields that Swedish verbs cover, according to Viberg (1999). Viberg presented three main semantic fields of verbs: concrete verbs, corresponding to primary A verbs; mental verbs, corresponding to primary B verbs; and grammatical verbs, corresponding to secondary verbs.

The first group refers to situations 'immediately accessible to the sense organs' (Viberg 1999: 169), though it is defined in the same way as the primary A verbs. Subcategories of concrete verbs are verbs of posture (corresponding to verbs of space in Pajunen's classification);

¹⁴ The classification of Finnish verbs into primary A verbs, primary B verbs, and secondary verbs by Pajunen is the same as Dixon did concerning English verbs. Still, there are differences concerning which kind of verbs belong to different groups. Such verbs as *haluta*, 'to want,' and *toivoa*, 'hope,' were classified by Pajunen as cognitive verbs, and thus primary B verbs, but these kinds of verbs belong to secondary verbs, according to Dixon. (Pajunen 2001, 68-69). I will comment on the differences and discuss if a particular verb is a cognitive verb rather than a modal verb, or vice versa, when I present the material.

verbs of motion (the same as Pajunen's category); verbs of possession (included in the category of motion verbs in Pajunen's classification, but she pointed out the special status of these verbs [2001: 55-54]); verbs of production (corresponding to verbs of action in Pajunen's classification); and verbs of existence. Viberg (1999) did not give examples of verbs of existence, but these could be identified as verbs of events in Pajunen's classification because verbs of events include those that express existence, like *syntyä*, 'to be born.'

Mental verbs include macro frames such as perception, cognition, desire, emotion, verbal communication, and metalinguistic verbs in Viberg's classification (1999: 170). According to Viberg, verbs of desire also could be regarded as a subfield of cognition verbs (1999: 169); actually, these verbs belong to the cognition verbs in Pajunen's classification. Verbs of cognition and emotion are included in the psychological verbs in Pajunen's classification, and metalinguistic verbs in Viberg's classification are a subgroup under speech act verbs in Pajunen's classification.

Grammatical verbs include dynamic verbs, aspectual verbs, and modal verbs in Viberg's classification (1999: 170). The two last categories are the same as the categories of secondary verbs that Pajunen mentioned. Dynamic verbs are verbs like *vara*, 'to be,' and *bli*, 'to become'; these verbs are used as copula verbs in Swedish (Teleman & Christensen & Hellberg & Andersson 1999). Pajunen classified the Finnish copula verb *olla*, 'to be,' as a primary A verb; it is used in so-called nominal decoding. She pointed out that this solution is not unproblematic, one reason being that the verb *olla* is a so-called bleak verb (2001: 54-55).

It seems, then, that Pajunen's primary A verbs, primary B verbs, and secondary verbs have parallels among the semantic macro fields of verbs that Viberg presented, even if there were some small exceptions and even though Viberg's classification (1999) was done on the basis of the language use of Swedish-speaking children. Pajunen's (2001) classification was based on material presented in a large dictionary of Finnish, *Nykysuomen Sanakirja (NS)*.

Viberg pointed out that at the beginning of language learning, only one verb often is used in the different semantic fields. The nuclear verbs (Viberg 1993) belong to different semantic fields and, therefore, cover many of the macro fields presented by Pajunen (2001).

I used Pajunen's classification in my analysis of verbs, except that I presented the copula verbs as their own group, not as a part of the primary A verbs. In Section 6.2., I present the verbs that are used as copula verbs in nominal encoding or, in some cases, as bleak verbs in idioms. In Section 6.3., I present primary A verbs; in Section 6.4., primary B verbs; and in Section 6.5., secondary verbs. I analysed the verbs in the oral tasks and the essays separately, but I did not analyse the different oral tasks and the two essays individually. In Section 6.6., the informant groups are compared regarding how they used the different types of verbs in their oral and written production. When presenting the semantic analysis of verbs in the production of informants, I was primarily concerned with explaining why the verbs used by the informants belong to the actual semantic class. In addition, I will discuss the different uses of verbs, and I will comment on the problems that the *extended* and *metaphorical uses* of verbs caused to the classification.

The definition of extension or metaphorical meaning depends on the definitions of words' *literal meaning* or *basic meaning*. Such definitions are not always easy to make. Cruse (2000) suggested that literal meaning is connected to the basic experience, for example, to spatial experience. This means that the literal meaning of the word *position* is 'location in a physical space,' not 'a place in an institutional hierarchy,' and the literal meaning of the word *see* is 'have visual experience,' not 'understand,' even though the verb *see* is often used in the latter meaning in English. However, the literal meaning of a word may change over time, especially if the meaning connected to the 'basic experience' gets lost. Cruse used the verb *expire* as an example because the earlier meaning 'die' is uncommon today and the metaphorical meaning 'come to the end of a period of validity' has become the most usual (Op. cit. 199-201; 215). This means that the frames where the words can be used will change over time. Pajunen pointed out that many of the primary B verbs were originally more concrete diachronically but they have changed in meaning and have become more abstract. Such a verb is *puhua*, 'speak,' which earlier meant 'to blow' (Pajunen 2001: 53).

A common definition of words used metaphorically is that such words are not used in their literal meaning. Metaphoric use of language is common in everyday expressions such as 'I see what you mean,' where *see* means 'understand.' According to cognitive linguistics, metaphora is the result of a special cognitive process where knowledge from different semantic frames is used to form a new expression (see Cruse 2000: 202; Croft & Cruse 2004: 194). Metaphoras are 'a means whereby ever more abstract and intangible areas of experience can be conceptualised in terms of the familiar and the concrete' (Lakoff, here quoted according to Cruse 2000: 205). Metaphoric uses of verbs were problematic regarding the classification of verbs to the macro frames because metaphoric expressions cannot be understood in relationship to one frame only. To differentiate between metaphorical and idiomatic use of a verb was also problematic. An opaque idiom, meaning an idiom that is totally fixed, cannot be explained by combining knowledge from different frames (Croft & Cruse 2004: 198). I will discuss the concept of idiom in the next section, when I present the concept of construction.

Metaphoras can be understood as a form of extended meaning, but not all expressions having extended meanings are metaphorical. In the present work, I used the concept of extended meaning when the verbs were used in meanings not found in Finnish. Extended meaning was, therefore, the result of language contact situations and extensions that probably revealed something about the lexical knowledge of the informants. Because the classification of verbs into primary A, B, and secondary verbs is also based on the argument structure of verbs, this concept is presented more closely in the next section. In this section, the relationship among frame, participants, argument structure, and construction is presented.

6.1.3. Events, participants, arguments and constructions

Pajunen's classification viewed the semantic characteristics of verbs as a starting point; the syntactic behaviour of verbs was further seen as the result of their semantic-ontological

characteristics (2001: 19). According to models of Pajunen, verbs have lexical conceptual, lexical semantic, and lexical functional (syntactic) representations. The conceptual representation is the basic representation because verbs are classified into event types according to frame. Not only the events but also the participants in the events are important knowledge connected to the frame. Different roles exist between the events and the participants, for example, the frame of the verb *buy* includes such elements as *buyer*, *seller*, and *goods* (Evans 2007: 158, see participant roles). Lexical semantic representation is encoded to the argument structure of verb, which encodes information of the number of arguments as well as their semantic roles, the most important being the role of *agent* and *patient*. Lexical functional representation refers to the syntactic function of the verb arguments. Syntactic functions are grammatical relations between or among the words in sentences. However, there is no consensus on the number of semantic roles, neither are there any one-to-one relationships between semantic roles and syntactic functions (Pajunen 2001: 70-75; 82).

I will compare the classification of Pajunen to construction grammar model in the following. First, I present the argumentation used to explain why grammatical knowledge can be understood as knowledge of constructions in different construction grammar models. Second, I discuss the model presented by Goldberg (1995) and compare it with Pajunen's classification (2001).

As pointed out in Section 3.1., according to the modular theory of language and most syntactic theories, all idiosyncrasy is placed in the lexicon, but regularities in language are explained using rules. For example, Pinker's (1999) *words and rules approach* or *dual mechanism approach* represented such an approach (see Tomasello 2003: 102). In contrast, a usage-based model of language considers grammar and lexicon as a continuum, and is not only interested in core grammar but also idioms, irregular constructions, mixed constructions and metaphorical extensions (op.cit. 98).

Idioms can be defined as 'grammatical units larger than a word which are idiosyncratic in some respect' (Croft & Cruse 2004: 230). An analysis of idioms demonstrated that it was not always possible to analyse expressions above the word level using general rules. There are several possibilities to classify idioms. One basic difference can be made between substantive idioms and schematic idioms. The substantive idiom is completely fixed; it is not possible to change anything in it. Because substantive idioms can be listed as multiword lexical items in the lexicon, they do not represent a problem for *words and rules approach* necessarily (Croft & Cruse 2004: 237). A substantive idiom in Finnish is, for example, *mennä mönkään*, meaning 'to fail,' where the first part is a frequent verb, 'to go,' but the second part is a word that can only be used in this idiom and only in the case illative.

However, many idioms are problematic to explain using models where the rules and the lexicon are sharply separated because idioms often are half-structured but still lexically open. Such idioms are called *schematic idioms* (Croft & Cruse 2004: 233-234). In Finnish, the so called local-case construction *Liisa on marjassa* 'Liisa is picking berries,' which has the literal meaning of 'Liisa is in a berry' is an example of a schematic idiom. This idiomatic

structure is used in many different expressions in Finnish, so it is lexically open (see Oinikki 1997). Because the rules cannot explain schematic idioms, schematic idioms are represented as constructions in the speakers' mind, meaning that constructions as holistic structures bear meaning. However, if schematic idioms that represent common phenomena in language are constructions, it is possible to argue that all grammatical knowledge is represented as knowledge of constructions (Croft & Cruse 2004: 229-237; 247).

Goldberg's construction grammar model can be compared to Pajunen's model because both models use the semantic frame when explaining the participant roles of verbs, which are frame-specific roles. (Goldberg 1995: 43). In Goldberg's construction grammar approach, the participant roles have non-reductionist representation, meaning that it is not possible to analyse further because the event analysed represents the primitive unit of semantic representation and the semantic roles are derived from the event situation as a whole (Croft & Cruse 2004: 272). This is also Pajunen's explanation (2001:70), namely, that the lexical conceptual representation (frame) is the basic unit that defines the characteristics of verbs. In contrast, when analysing argument structure, Goldberg used a reductionist model because atomic primitive grammatical relations like subject and object and primitive syntactic categories like verb were used in the analysis (Croft & Cruse 2004: 272). Such a reductionist model also was used in Pajunen's analysis of argument structure.

Goldberg described the construction grammar approach both as bottom up (from verb to construction) and top down (from construction to verb), meaning that the verb in a construction bears meaning but the construction also bears meaning (1995: 24). The difference between Pajunen and Goldberg was the view of constructions bearing meaning; this is because the semantic classification of verbs, not constructions, were the focus of Pajunen's work (2001).

Goldberg (1995: 669) described the relationship between verbs and constructions in the following ways: "Verbs and other lexical items have been argued to be associated with rich frame semantic knowledge. Basic sentence-level constructions, or argument structure constructions, have been argued to designate scenes which are in some sense basic to human experience (cf. also Fillmore 1968, Langacker 1991). That is, it is claimed that the set of basic clause types of language are used to encode general event types of a language such as those denoting that someone did something to someone, something moved, something caused something to change state, someone experienced something, someone possessed something and so forth." Such general event types also are those that define the semantic macro frames of Pajunen (2001), for example, the semantic macro frames of primary A verbs like verbs of action, verbs of motion, or verbs of possession.

Construction has been used as a pre-theoretical term in traditional grammars, but in construction grammar, construction is a more general concept than it is a traditional grammatical term. Constructions are linguistic symbols, in the same way that words are, or pairings of meaning and form. The difference between constructions and lexicon is one of degree. Constructions are complex because they include words and phrases and words are syntactically simple, but both words and constructions are pairings of meaning and form. This

means that grammatical knowledge of words and constructions have the same representation in the speakers' mind (Croft & Cruse 2004:255 -256).

Constructions of language form networks. Some constructions in networks have many members. For example, a transitive sentence type is a large construction type because many verbs are included in it. Other constructions are more specific and do not include so many members or verbs, but they can, however, still have a high token frequency. Such constructions include modal constructions, which often include syntactic irregularity (Goldberg 1995: 134; Croft & Cruse 2004: 311- 312). A construction category can include many members with various characteristics, but one of them is the best example of this construction. More marginal members are often more idiomatic, and the more central members are more productive (Taylor 1998: 198).

Tomasello explained that language learning is based on the learning of constructions. He stated that child language learning starts with the acquisition of concrete pieces of language. The first multiword utterances of children (pivot schemas) are similar to formulas found in second language learning because they are unanalysed combinations of words (see Ellis, R. 1994: 272-273, 703 and Tomasello 2003: 114-117 and Section 3.2.). The first constructions in children's language are item- based constructions, where individual verbs with arguments can be used. Constructions became more abstract after more language is acquired. In complex constructions, verbs are used with infinitive and sentence arguments. These constructions are developed after the verbs getting such arguments are acquired. The enlargement of the number of verbs in children's language is important when moving toward more adult-like language (Tomasello 2003: 121-122, 244-253, 307-312; see also Lieko 1992).

The three basic categories of Finnish verbs, namely, the primary A verbs, the primary B verbs, and the secondary verbs, can be used in different constructions. Primary A verbs get NP-arguments only, in comparison to primary B verbs, which get both NP-arguments and proposition arguments. The last type of arguments can be infinitive arguments, participial construction¹⁵ arguments, and sentence arguments in Finnish. Secondary verbs typically co-occur with another verb, which lexicalises the conceptual structure, when the secondary verb is modifying this other verb. The difference between the primary cognitive B verbs and secondary verbs is not clear, but forms a continuum, nevertheless (Pajunen 2001: 52-53).

I also will comment on the arguments connected to verbs, and I will comment on the correct and incorrect uses of arguments. I will not give a complete analysis of the verb arguments used by the informants because the focus of this study was not on how verb arguments are used but on how the semantic characteristics of verbs affect language learning. However, argument structure is important in my analysis because it forms one basis of the classification of verbs into semantic groups. In this chapter, I semantically analyse finite verbs and infinite verbs because my analysis is based on semantics, not on verb forms. In chapter 7, when I give a formal analysis of the verbs, the finite verbs and the infinite verbs are presented separately.

¹⁵ This construction can be used in the function of object of certain verbs in Finnish (look at Karlsson 1999: 200-205). These constructions were not used by my informants.

In addition to the analysis of Finnish verbs, the concept of construction, as presented in construction grammar (Goldberg (1995; Croft & Cruse 2004), is used in the present work when analysing the verbs and their arguments. Because *olla* was the most frequently used verb by the informants, the arguments used by this verb are presented more closely than the argument structure of other verbs. In my analysis, I will use terms subject, object, complement, and adverbial to describe the grammatical relations in the argument structure. Adverbial can be a compulsory argument of a verb, but adverbial is also used as an optional modifier of a verb.

6.1.4. Semantic characteristics of verbs and language learning

In this section, I discuss the semantic characteristics of prototypical verbs and how such characteristics are seen to affect learning. In chapter 4, when I discussed the frequency of verbs, prototypical verbs were defined on the basis of frequency because nuclear verbs were also meant to be prototypical verbs (see Section 4.1). However, not only frequency but also verb semantics and situations that verbs refer to are factors that have been suggested as the reason for some verbs to be more typical verbs than other verbs.

One basic difference between events is *aspect*, or temporal view. Events called *states* do not include change; events including change are called *actions* (Croft 1998: 67). Another difference between events is *causation*, meaning change caused by an agent or some other force (e.g., physical causation). An event where an agent is acting entirely under her or his volition and the patient undergoes a full change of state is a prototypical event type, according to Croft (1998: 89), and verbs referring to such events are prototypical verbs. Also, according to Langacker (1998: 19), the prototypes of the referents of verbs are actions, meaning events producing observable change by a volitional agent.

Aspect and *causation* are seen to affect the learning of verbs. The first verbs that young children learn are those denoting actions. According to Brown (1966 [1957]), children use more action verbs than adults do. Fifty-seven percent (57%) of the verbs used by children are action verbs, whereas only 33% of the verbs used by adults are action verbs, according to Hatch and Brown. By action verbs, the writers mean transitive actions (hug, bite) and intransitive actions (go, run; 1995: 223). Clark (1995) suggested that prototypical events are the starting point for children when they begin to organize their categories of actions and causality. These kinds of prototypical events are either common, distinctive, intransitive actions such as walking, running, or swimming, or typical transitive causative actions like breaking something, eating something, or hitting something (Clark 1995: 55). These latter mentioned examples are similar to Croft's prototypical event types.

Beside aspect and causation, the *number of participants* may affect the learning of verbs. Tomasello explained how the semantic characteristics of verbs facilitate which verbs are learned earlier than other verbs. In addition, he discussed how the number of participants affects the learning of verbs. He concluded that English-speaking children first learn verbs denoting dynamic events; these verbs are used only with a single participant to begin with.

Dynamic events are either a change of state or activity, and they may be intentional, or not. Still, children learn verbs denoting static states of affairs and events in which two participants are involved at an early age, around their second birthday (2003: 214-215.) It seems, then, that aspect, causation, and number of participants are features that may facilitate which verbs are learned first: Aspect and causation are features of actions verbs that are learned first, according to Brown (1966 [1957]) and Clark (1995); the number of participants is a feature that facilitates the learning of verbs, according to Tomasello (2003).

Aspect and causality are included in the analysis of Pajunen. The semantic-ontological classification coincides partly with the classification based on aspect. Both primary A and primary B verbs can be divided with regard to aspect into verbs describing static and dynamic situations. Verbs of space and many mental verbs are often states. Still, the same lexical verb can be used to describe static and dynamic situations. It is the context of use that determines which kind of situation a verb is describing. For example, verbs of space are often states, but a verb that describes the position of a referent is not always without the control of an agent (Hakulinen & al. 2004: 1435).

Causality makes a basic difference between the primary A verbs that lexicalise the macro frame of space and the verbs that lexicalise the macro frames of action, motion, and event. The verbs belonging to the first class usually are not affected by causation, and these verbs can be called states, contrary to all of the other verbs that describe processes. Actions are processes caused by a volitional agent, whereas events are processes caused by physical causation. A movement is always caused by some kind of causation (Pajunen 2001: 53, 70-71, 94-96). I will discuss causation later on, especially when I present the verbs of action that are typical verbs expressing causation (Hakulinen & al. 2004: 456).

L2 learners are in a different situation from that of young children because they already have learned at least one language. Still, one may ask if the same semantic characteristics of verbs that facilitate learning in early childhood also facilitate learning of verbs when L2 learning is concerned.

6.2. Copula verbs

In the case of nominal encoding, the verb in a sentence is a bleak verb, a copula, followed by a nominal constituent. The verb has only a syntactic function, and it is the nominal constituent that expresses semantic information (Pajunen 1999: 39; 2001: 96).

In Finnish, the copula verb normally is the verb *olla*, 'to be,' though sometimes, the copula also can be the verb *tulla*, 'to become,' or even some other verbs. I will first present constructions where the verb *olla* is used as a copula verb (Sections 6.2.1 & 6.2.2); afterward, I will discuss cases where other verbs are used as copula verbs or where the verb is used with a bleak lexical meaning in an idiom (Sections 6.2.3. & 6.2.4).

Pajunen called constructions that include a copula verb *nominal sentences (nominaalilause)*. According to her definition, all constructions that have the verb *olla*, 'to be,' as the main verb

are nominal sentences (Pajunen 1999: 38-39).¹⁶ In all such constructions, it is question of nominal encoding of space.

In Finnish, nominal encoding is used in constructions with complements.¹⁷ These constructions express equation (*Tuo mies on Matti*, 'That man is Matti'); inclusion (*Suomi on Eurooppaa*, 'Finland is a part of Europe'); attribution (*Matti on vanha*, 'Matti is old'); classification (*Matti on opettaja*, 'Matti is a teacher'); possession (*Kirja on Mattin*, 'The book belongs to Matti'); and measurability (*Kello on viisi*, 'It's five a clock'; Hakulinen & al. 2004: 899-914). The complement is usually an adjective or a noun in constructions with complements; sometimes, it may be a pronoun or a numeral. Equation and attribution are almost always encoded using nominal encoding; verbal encoding is also possible in inclusion (*Suomi kuuluu Eurooppaan*, 'Finland belongs to Europe'; Pajunen 2001: 105). According to Löflund, constructions expressing inclusion are not as productive as two other types of constructions including a complement in Finnish (2002:13). In my material, there were no constructions expressing inclusion.

Besides constructions with complements, nominal encoding also is used in constructions that express location, existence, possession, and state in Finnish. Location is encoded with an adverbial of location and the copula-verb *olla*, 'to be': *Auto on kadulla*, 'The car is on the street' (Pajunen 1999: 38-39; 2001: 105; look also at Hakulinen & al. 2004: 848).

Existence is encoded in Finnish with a special construction. Because it is usual to express existence in relationship to location, an adverbial of location often occurs in an existential construction: *Kadulla on auto*, 'There is a car on the street.' Also, possession is expressed with a special construction in Finnish, where the grammatical subject in the sentence has the goal of possession as a referent; the adverbial constituent has the possessor as a referent: *Minulla on auto*, 'I have a car' (Hakulinen & Karlsson 1979; Pajunen 1999: 39; Löflund 2002: 9-10, 15-16).

State constructions often are idioms, where the noun and the verb form a fast construction, for example, *On kylmä*, 'It's cold' (Hakulinen & Karlsson 1979: 93, 171; Pajunen 1999: 39). According to Hakulinen & al., possession and state constructions are undercategories of existential constructions (2004: 849). All these constructions belong to special constructions in Finnish with special meanings connected to their construction. Conversely, sentences with complements or location adverbials belong to the general construction types in Finnish (Hakulinen & al. 2004: 848- 849).¹⁸

¹⁶ This term was also used by Paavo Siro in his classic, *Suomen kielen lauseoppi* (Finnish syntax 1964). *Nominaalilause*, 'nominal sentence' is, according to Siro's definition, a sentence including a complement. The term *nominal sentence* emphasises that the verb is not an important part of the construction (Hakulinen & Karlsson 1979: 189). Pajunen (1999) enlarged the area of the nominal sentences compared to the definition used in nominal sentences by Siro (1964) and Hakulinen & Karlsson (1979).

¹⁷ In Finnish grammar, the complement is called *predikatiivi*.

¹⁸ Several presentations of Finnish sentences types are to be found. Hakulinen & Karlsson (1979) presented one that is based on both syntactic and semantic criteria. Their basic categories are transitive, intransitive, and complement sentences (starting with a subject-NP), sentences of state (not having a subject NP) and existential and possessive sentences (starting with an adverbial constituent). Besides these types, there are sentence types

The verb *olla*, ‘to be,’ then, is used in many constructions of Finnish. Concerning the special constructions in particular, it is not always possible to analyse them in parts; rather, it may be more essential to consider them holistic constructions (Hakulinen & al. 2004: 848-849). Huomo (2003: 491-492) argued that it is not possible to analyse one of the most central special construction in Finnish, existential construction starting from individual elements in these constructions, but one has to interpret existential constructions from a holistic construction level meaning.

The difference between general and specific constructions of Finnish is not only semantic but also formal: General constructions normally start with a subject constituent in the nominative case, and there is agreement between the subject and the main verb. In contrast, specific constructions do not start with the subject argument in the nominative but with an argument in some other case than the nominative, such as in existential or possessive construction; state construction may start with a verb. In addition, there is no agreement between the subject and the verb; instead, the verb is in the 3rd-person singular in special constructions of Finnish (e.g., see Scot-Saikku 1995: 258).

Other verbs may serve as copula verbs in Finnish besides *olla*, ‘to be,’ and *tulla*, ‘to come.’ Pajunen called these verbs *abstract copula verbs*; they are a kind of linking verb in Finnish (2001: 106). For example, the verb *tulla* is used in many constructions in a similar way as the verb *olla*, ‘to be’ (Hakulinen & al. 2004: 449). Other linking verbs beside *tulla* are *näyttää*, ‘to seem,’ and *tuntua*, ‘to seem’ (Pajunen 2001: 106).¹⁹

Verb may have bleak meanings also in idioms. Many frequent verbs are found in idioms. (Hakulinen & al. 2004: 447). Because verbs do not have an independent semantic meaning in these constructions, they also can be considered nominal encoding.

called marginal by Hakulinen & Karlsson (1979: 93-100). Vähämäki (1987) also presented a sentence type typology of Finnish. In his typology, the basic categories are nominative subject sentences or nonexistential sentences and existential sentences; the third category comprises impersonal or experiencer sentences (look at Vähämäki 1987: 185- 186; Schot-Saikku 1995: 257). The area of existential sentences expanded in the typology of Vähämäki, compared to what traditionally are seen as existential sentences in Finnish. For example, the sentences expressing possession belong to the existential sentences in his typology. Schot-Saikku also presented a typology based on formal criteria. According to her, there are only two basic categories of sentences in Finnish, namely, sentences including a nominative frame and sentences including an oblique frame or nonnominative frame (1995: 258). Löflund (2002) presented a typology that is primarily based on Hakulinen-Karlsson (1979.) The typology of Pajunen (1999) differentiated transitive, intransitive, and nominal sentences. Hakulinen & al. (2004: 848) divided sentences into two basic syntactic categories: general sentence types and specific sentence types. To the first category belong transitive, intransitive, and copula sentences; to the second category belong, besides existential, possession, and state sentences, also some other specific sentence types in Finnish.

¹⁹ Not all grammarians consider other verbs beside *olla* as copula verbs in Finnish. For example, Hakulinen & Karlsson presented *olla* as the only copula verb in Finnish (1979: 189). Conversely, Penttilä (2002 [1963]:606 - 608) considered many other verbs as copula verbs because in his presentation, many construction that are usually not considered as complements in Finnish are classified as complements.

6.2.1. Use of verb *olla* in oral tasks

In this section, I explain how the verb *olla*, ‘to be,’ is used as a copula verb in nominal encoding in the oral tasks. Because I want to collect all uses of this verb in one table, Table 6.1 also presents uses of the verb *olla* that do not represent nominal encoding. Still, only the uses of nominal encoding will be discussed in this section when I present the examples.

Table 6.1

Constructions, including verb *olla*, ‘to be,’ in oral tasks of bilinguals (BL) and classroom learners (L2)

BL	Comics		Interview		All orals	
	Number	%	Number	%	Number	%
Complement	37	45,7	19	17,8	56	29,8
Adverbial	18	22,2	21	19,6	39	20,7
Existence	2	2,5	8	7,8	10	5,3
Possession	0	0	12	11,2	12	6,4
State	6	7,4	3	2,8	9	4,8
Idiom	4	4,9	0	0	4	2,1
Yes/ no –answer	1	1,2	15	14,0	16	8,5
Fragment	6	7,4	7	6,5	13	6,9
Auxiliary	5	6,2	20	18,7	25	13,3
Verb string	2	2,5	2	1,9	4	2,1
Total	81	100	107	100	188	100
L2						
Complement	62	67,2	18	70,4	80	67,2
Adverbial	5	5,4	3	7,4	8	6,7
Existence	3	3,3	0	0	3	2,5
Possession	2	2,2	1	3,7	3	2,5
State	1	1,1	0	0	1	0,8
Idiom	1	1,1	0	0	1	0,8
Yes/ no-answer	5	5,4	1	3,7	6	5
Fragment	9	9,8	4	14,8	13	10,9
Auxiliary	1	1,1	0	0	1	0,8
Dummy question verb	3	3,3	0	0	3	2,5
Total	92	100	27	100	119	100

Table 6.1 shows the sentence types where the verb *olla* is used. General constructions, sentences with *complements*, and sentences with *adverbials* are presented first. The adverbial is most often a locative adverbial, sometimes an adverbial that expresses time. The adverbials can also be so-called ORMA, that is, *object-related measural adverbial*, in Finnish OSMA

(*objektin sukuinen määräite*, an argument in Finnish that is something between an object and an adverbial).²⁰

Special constructions or sentences that express *existence*, *possession*, and *state* are the next categories. The category also is *idioms* with the verb *olla*.

The verb *olla* can also be used in *answers to yes/no questions* in Finnish (Hakulinen & al. 2004: 1147-1149). Such answers form one of the categories of the uses of *olla*. If, however, it was possible to categorise the answer as one of the other categories, I did so. For example, if a possessive construction was used as an answer, I classified it in the category of possession. Because the question and the answer in *converstation*²¹ often form one utterance syntactically (look at Hakulinen & al. 2004: 1144), the answer of the informant to a yes/no question could only include the verb *olla*, but not other sentence constituents. Only such answers were categorized as answers to yes/no questions in Table 5.1. The last category in the table includes the use of *olla* in cases where the informants have not completed a sentence; thus, the verb *olla* occurs in *fragments* of sentences. Also, the uses that have not been possible to categorise elsewhere belong here. Not all examples in the category of yes/no answers are examples of nominal encoding because yes/no answer could also be a repetition of an auxiliary verb. Uncompleted expressions like fragments are not examples of nominal encoding either, but because fragments are often fragments of complement sentences, I will present examples of fragments in this section.

I also present the number of sentences where *olla* was used as an *auxiliary*, a *dummy question verb*, or as an infinitive in *verb string constructions* in Table 6.1. In these categories, the verb *olla* is not the main verb of the sentences, and these sentences are not examples of nominal encoding. In the last type of constructions, the verb *olla* is an infinitive, and the main verb usually is a modal verb. Examples of the uses of these categories are presented in chapter 7.

Syntax in oral language is different from syntax in written language, so the context of use is even more important in the interpretation when compared to written production (e.g., see Hakulinen & al. 2004: 957). I will take into account the typical features found in oral production, such as the omission of a constituent or the use of cleft constructions, when I present the examples.

I will present examples of different types of nominal encoding in the oral production of the informants. Sentences²² with complements form the largest group of constructions with the verb *olla*, ‘to be’; therefore, this type of nominal encoding is presented more narrowly in Table 5.2. A complement can be a noun phrase, an adjective phrase, or a quantifier expression (*määränilmaus*; Hakulinen & al. 2004: 900, 911-912).

²⁰ The term in English (see Vähämäki 1987: 183).

²¹ *Converstation* is used to refer to communication between the informant and me, but I use the term *dialogue* when I refer to the lines that the informants created between the characters in the comic strips.

²² Instead of using the term *sentence*, the term *utterance* (in Finnish *lausuma*) is used when speaking of productions in oral language (Hakulinen & al. 2004: 957). Because I used the same sentence analysis in both the oral and the written tasks, I used the term *sentence* also when I discussed oral production.

Table 6.2

Types of complements in oral tasks of bilinguals (BL) and classroom learners (L2)

Predicate Complement	BL	%	L2	%
Adjective phrase	39	69,6	23	28,8
Noun phrase	11	19,6	36	45,0
Quantifier	5	8,9	21	26,3
Other	1	1,8	0	0
Total	56	100	80	100
Adjective phrase				
Head	26	66,7	23	100
Mod. + head	13	33,3	0	
Noun phrase				
Head	3	27,3	21	58,3
Mod. + head	8	72,7	15	41,7

Adjective phrases and noun phrases are analyzed further to head or to modifier and head

Table 6.2 shows that the bilinguals and the classroom learners used complements, including adjective versus noun, quite differently in their oral production. Adjective phrases and noun phrases were also constructed in different ways by the two informant groups. I present the examples where the complements are adjective phrases first.

- 1) Oon liian väsynny. (Kalle, BL, C1)
be+SG1 too tired+PCP 'I am too tired.'
- 2) ne on ihan hienot ne vanhat (kengät) (Mari, BL, C1)
they be+SG3 quite fine+PL they old+PL 'The old shoes are quite fine.'
- 3) Ymm./ tässä / kahvi on hyvää. (Siri, L2, C1)
Here coffee be+SG3 good+PAR 'Here/the coffee is good.'
- 4) Tuo kengät ovat // hyvin. (Berit, L2, C1)
That shoe+PL well. 'Those shoes are good.'

In the production of the bilinguals, adverbs of intensity, as in example (1) were modifying the adjective.²³ Sometimes, the adjective is used in comparative or superlative form. In example (2), there is a right dislocation of the subject. Actually, the subject is a noun phrase, *vanhat kengät*, 'old shoes,' even if the head of this phrase, *kengät*, is omitted and the subject is located at the end of the sentence. The pronoun *ne*, 'they,' with the same referent as the omitted subject *kengät*, 'shoes,' begins the sentence. A right dislocation of a noun phrase is typical for spoken language (Hakulinen & al. 2004: 1013).

²³ It was not always possible to define exactly the border between forms of verbs versus adjectives. As Koivisto pointed out, the context of use is important when deciding if the participle is a verbal or an adjective (Koivisto, H. 1987: 424). The participle *väsynyt*, 'tired,' is analysed as an adjectivized participle in example (1) because the adverb of intensity, *liian*, 'too' indicates that the participle actually is an adjective, not a participle form of the verb *väsyä*, 'to get tired.'

Examples (3) to (4) are adjective complement sentences of the classroom learners. Even if adjective complements in the oral tasks only consist of a head, and adverbs are not used as adjective modifiers, an adverb, *hyvin*, is used as an adjective in example (4). This indicated that the syntactic use of word classes is not always clear for the classroom learners.

In sentences (5) to (8), the complement is a noun phrase. Example (5) is from the bilinguals, and examples (6) to (8) are from the classroom learners:

- 5) Ja sitte / se oli aika hieno kirja. (Anna, BL C2)
And then it be+PAST+SG3 quite fine book. 'And then it was quite a fine book.'
- 6) Ehh.. Sinä / sinä olen hyvä äiti. (Rita, L2, C2)
You / you be+SG1 good mother 'You are a good mother.'
- 7) Hän on / hän on Liisan ystävä. (Berit, L2, C1)
She be+SG3 / She be+SG3 Liisa+GEN friend. 'She is a friend of Liisa.'
- 8) Kuvakirja on minun! (Elin, L2, C2)
Picture-book be+SG3 I+GEN 'The picture book is mine!'

The noun complement can get an adjective as a modifier (examples 5, 7); in example (5), there is also an adverb of intensity that modifies the adjective. Noun phrases of the classroom learners are often pronouns, as in example (8); modifiers in noun phrases may also be a pronoun or a noun in genitive, as in example (7). The pronoun is most often the pronoun *minun*, 'mine.' All the classroom informants seem to have the expression 'It is mine' in their repertoire.

In the orals, the classroom learners use more complements with nouns than with adjectives. The NP-constituents with nouns as a head are also more complicated than the NP-constituents where the head is an adjective. The adjective complements only include the adjective head; the complements with the noun as a head often include one or a few modifiers. This fact, together with the number of these different complements, showed that the complement with a noun as a head may be easier to learn to begin with. The explanation may be the order of acquisition of nouns versus adjectives, that is, the acquisition of adjectives after nouns (Viberg 1993: 378). Typical modifiers of adjectives, namely, adverbs of intensity, seemed not to belong to the vocabularies of the classroom learners either in the oral tasks, except in one example where an adverb of intensity is used as an adjective.

A complement may also be a quantifier expression, as in the following examples:

- 9) Kello on ym... // kymmenen minuuttia vailla / kahdeksan (Vivi, L2, C1)
Clock be+3SG // ten minute+PAR to eight.
'The clock is ym...// ten minutes to/eight.'
- 10) Minä olen / ehhd kuusitoista vuotta. (Berit, L2, I)
I be+SG1 / sixteen year+PAR 'I am / ehhd sixteen years (old).'
- 11) (Ym-m. No sitten /minkäslainen perhe sulla on?)
K: Ollaan viisi. (Meitä on viisi.) (Kalle, BL, I)
Be+PASS five.
(And then / which kind of family do you have?) K: We are five.'

- 12) (Ahaa kaksi siskoa . Teillä on kol... hetkinen / ehh... kaksi siskoa, veli ja sinä teitä on /neljä.)
 B: Me on / me olemme / kuusi. (Meitä on kuusi.) (Berit, L2, I)
 We be+SG3 / we be+PL1 six.
 (Yes two sisters. You have (in your family) three... wait a moment / ...two sisters and a brother and you; so your are four) B: ‘We are six.’

Examples (9) to (10) are expressions about time and age of the classroom learners. This kind of quantifier expression is a complement (Hakulinen & al. 2004: 911-912).²⁴

The classroom learners in particular produced many expressions in the orals where the complement expressed measurability. In the interview, the expressions of measurability about age were facilitated by the interview questions. In the comics, the quantifier expressions were about time, facilitated by the pictures in comic strip 1. Phrases about time and age are common in all language courses, and it is obvious that all the classroom learners had these expressions in their repertoire.

Example (15) is about the number of members belonging to the family of Kalle, and in example (16), Berit revealed that there are six children in her family. In idiomatic Finnish, a construction called *kvanttorilause*, ‘quantifier sentence,’²⁵ is used to express how many members belong to a group (Hakulinen & Karlsson 1979: 97-99; Hakulinen & al. 2004: 858-860). This construction, however, was not used by Kalle and Berit, who used a more general construction, a complement construction, in their expressions. Quantifier construction is a marginal construction in Finnish (see Hakulinen & Karlsson 1979); therefore, it was substituted using a complement construction which is a more prototypical and frequent construction of the verb *olla*. (See Croft & Cruse 2004: 78; Tomasello 2003: 175.)

The following sentences include an adverbial. Examples (13) to (14) are from the bilinguals, and examples (15) to (16) are from the classroom learners:

- 13) Ne on kahvilassa / syömässä. (Kalle BL, C1)
 They be+SG3 café+INE / eat+INF3+INE ‘They are eating in a café.’
 14) Tyttö on vielä vähän suutuksissaan (Pekka BL, C2)
 girl be+SG3 still little anger+PL+INE+POSS ‘The girl is still a little angry.’
 15) Joskus minä / on / S-ssa. (Berit L2, I)
 Sometimes I be+SG3 S+INE ‘Sometimes I am in S.’

²⁴ Löflund (2002: 69) pointed out that a numeral may be complement in a sentence: *Onnennumeroni on seitsemän*, ‘My number of luck is seven.’ Expressions of time and age (examples 12 to 14) do not express identification, like Löflund’s example, but they express measurability. However, if the sentence *Kello on seitsemän*, ‘It is seven o’clock,’ is changed to the negative form, *Kello ei ole seitsemää*, ‘It is not seven o’clock,’ the case of complement changes from nominative to partitive. In the same way, the case of the complement changes in expressions of age: *Lapsi on kolme*, ‘The child is three (years old),’ to *Lapsi ei ole kolmea*, ‘The child is not three years old.’ Usually, a complement in Finnish does not change case from nominative to partitive in a negative sentence (Hakulinen & Karlsson 1979: 190). So, the change of case in a negative sentence implies that these sentences do not represent most typical sentences with a complement.

²⁵ In the quantifier sentence, the first NP-constituent is in the partitive case, and the verb is in the 3rd-person singular (Hakulinen & al. 2004: 858-859).

- 16) Neei he ovat kaffi / nei /// kaffegreia. (Vivi L2, C1)
 No (Norw.) they be+PL3 coffee / no /// (Norw.) coffee thing (Norw.)
 ‘They are in café.’

The adverbial expresses locality in examples (13), (15), and (16). Besides adverbial arguments that refer to concrete localities, adverbial arguments can also express different kinds of states. In Finnish, there are different kinds of possibilities to express states. One possibility is to use verbs of space. I present the use of these verbs in Section 6.3. The use of the 3rd infinitive in inessive is another possibility. Different kinds of constructions, including the verb *olla* and a noun in a local case, called local-case construction (*paikallissijailmaus*), also belong to the frequently used expressions of state in Finnish (Oinikki 1997: 94).

The 3rd infinitive in inessive is used together with an expression of concrete locality in sentence (13). The 3rd infinitive in inessive has evolved from an expression of locality to a function of progressive aspect in Finnish, although the process of grammaticalisation is not yet fulfilled, because not only the verb *olla* but also other verbs are possible as the auxiliary in the construction (Oinikki 1997: 116). Particularly if the activity is located in a concrete place, the relationship to the expressions of locality is still clear (Kangasmaa-Minn 1978: 286-287).

Pekka also used so-called local-case constructions, as in example (14). Only Pekka and Tiina used such an expression; Tiina used expressions like *olla menossa*, ‘to be just going’; *olla tulossa*, ‘to be just coming’; and *olla lähdössä*, ‘to be just on the way.’ These constructions are very frequent in Finnish, and sometimes they were used in the textbook of Slotte (1987: 14, 18); however, the classroom learners did not use these expressions in their production. The uses of the verb *olla* in these kinds of constructions are presented in the dictionary, which indicates the lexicalised use of the construction. Conversely, such local-case constructions seem to form a ready fixed shape in Finnish that can be used to form new expressions. Therefore, the use of local case in these examples is part of both the grammar and the lexicon. Local-case constructions represent common phraseology in Finnish (Oinikki 1997: 92); these kinds of constructions are schematic idioms (Croft & Cruse 2004: 237).

When an adverbial in a construction with *olla* expresses locality, it refers to a concrete locality in all the sentences produced by the classroom learners, as in examples (15) to (16). The adverbial constituent is in the inessive case the most often, as in (15), or it also may be an adverb of locality, for example, *kotona*, ‘at home.’ In sentence (16), there is no constituent in a local case, so this construction is formally a complement construction. It is only on the basis of semantics that it is possible to interpret that the nominal encoding in example (16) expresses location, not equation. The reason that *kaffigreja*, ‘coffee thing,’ is not inflected in Finnish is perhaps because it is a loan from Norwegian, though also in example (15), the place name inflected in inessive is a Norwegian name.

An adverbial does not always express locality or state, but in some examples, it may also express time, measurability, or other issues:

- 17) Ennen oltiin joka kesä. (Pekka BL, I)
 before be+PASS+PAST every summer ‘Earlier we were every summer.’

- 18) Em mä tiiä. Sitä on ollu aika kauan. (Kalle BL, I)
It+PAR be+SG3 be+PCP quite long-time
'I don't know. We have had it for quite a long time.'
- 19) Koulu on loppu. (Elin L2, I)
School be+SG3 finished 'The school is finished.'
- 20) Ja / minä olen kanssa ystävät. (Berit L2, I)
And / I be+SG1 with friend+PL 'And I am with friends.'

In sentence (17), there is an adverbial phrase expressing time. In example (18), there is an adverbial expressing measurability, the so-called ORMA.²⁶

Expressions similar to example (18) are analysed as an adverbial, according to Hakulinen & al. (2004: 927). The word *loppu*, 'finished,' is an adverb without inflection.²⁷ In sentence (19), the adverbial phrase is a preposition expression. *Kanssa*, 'with somebody,' actually is a postposition in Finnish and can be used as a preposition, as in the example of Berit, but only in poetic style (look at the *NS*, word *kanssa*). The noun used with the postposition *kanssa* ought to be in case genitive, and not in the case nominative as in example (15). Besides adverbials that express concrete location, namely, examples (15) and (16), the classroom learners only had these two examples of other types of adverbials in the oral tasks.

Sentences (21) to (24) are existential sentences.

- 21) Ja sitte tuosa neloskuvasa varmaan keskustelee että tämä ois hyvä kirja sulle että tässä ei oo mitään // tuhmaa tapahtumaa tai mitään semmosta / (Tiina BL, C2)
that here no+SG3 be+NEG anything+CLI // nasty+PAR event+PAR or anything+CLI such+PAR
'In the fourth picture they discuss that this book is a good one because there is nothing nasty event or something like that here.'
- 22) No tääl on / voi tehä muuta. Tai tääl-on meri ja kaikkea. (Kalle BL, I)
Or here be+SG3 sea and everything+PAR
'Here is / it is possible to do other things. Or here is the sea and everything else.'
- 23) Tässä on minun kuvakirja. (Elin L2, C2)
Here be+SG3 I+GEN picture-book 'Here is my picture book.'
- 24) Ymm. Ymm. // Tässä kirja on. /Ymm. / Hyvä. (Rita L2, C2)
Here book be+SG3 / good. 'Here is the book. Good.'

In the prototype of an existential sentence, there is an adverbial at the beginning of the sentence, and the subject of the sentence is in the partitive case: *Autotallissa on vettä*, 'There is water in the garage.' A corresponding sentence type in English as well as in the

²⁶ In Finnish the adverbial constituent is called OSMA (*objektin sukuinen määräite*). It is called an *object-related mesural adverbial* because the constituent changes the case from the accusative in an affirmative sentence to partitive in a negative sentence, such alternation between accusative and partitive is also typical of the case of the object; partitive is always the case of object in a negative sentence in Finnish. Constituents like *paljon*, 'much,' and *kauan*, 'a long time,' are typical ORMA constituents (Hakulinen & Karlsson 1979: 216-217).

²⁷ Löflund analysed adverbs that characterise subject as complements (2002: 69). Loan words not having inflection in Finnish like *okay* are analyzed as complements according to Hakulinen & al. (2004: 901), uninflected adverbs like *loppu* are analysed as adverbials (2004: 927). This is because *okay* describes the referent of the subject, but *loppu*, 'finished,' expresses state.

Scandinavian languages is the presentation structure: In English, it is *there is*; in Swedish, *det finns* (Hakulinen & al. 2004: 851). However, the structure of the existential construction in Finnish is quite fluid because the subject of the sentence can also be in the nominative (*Autotallissa on polkupyörä*, ‘There is a cycle in the garage’), and sometimes, a partitive subject can start such a sentence. So, in some cases, the difference between an existential sentence and an intransitive sentence is not clear (Hakulinen & Karlsson 1979: 95-96; look also at Hakulinen & al. 2004: 850-852).

Example (21) represents the prototype of the existential construction. In example (22), the subject is in the nominative case. The subject, *meri*, ‘sea,’ has a definitive referent, though the sentence is existential because the function is to present a referent that had not been mentioned before (look also at Hakulinen & al. 2004: 852). Examples (23) and (24) were existential sentences in the production of the classroom learners. The sentences had inversion, and they started with an adverbial, which expressed locality. The subject in these sentences was definite, not indefinite, which is more normal in an existential sentence. These kinds of presentations are typical sentences one learns at the beginning of a language course. These expressions resembled prefabricated formulas like ‘Here’s a/the X?’ which are usual at the beginning of both first and second language language learning. Prefabricated formulas are imitations of items that are frequent in input, and even though they are not syntactically analysed, they still fulfill a communicative function (see Tomasello 2003: 114 – 115, 148 – 149, 305.) So, these examples did not necessarily demonstrate that the informants mastered the Finnish existential construction. Yet, the sentences were presentations, which is precisely the function of an existential construction.

Following examples are possessive constructions:

- 25) Joo ja sit mulla o’ yks / veli ja yks / tuota sisko. (Tiina BL, I)
Yes and then I+ADE be+SG3 one / brother and one / that+PAR sister
‘Yes, and then I have one brother and then one sister.’
- 26) Minulla / on / uusi / kengät. (Siri L2, C1)
I+ADE / be+SG3 / new / shoe+PL. ‘I have new shoes.’
- 27) (Ym-m. Jaa / no mitä tyttö sitten sanoo?) R: Ymm... / Ka var å ha? (Jaa minulla on / jotakin.) R: Ymm. (Ym-m.) R: Eh...isä o...// on. (Jaa isä) R: minun kirja. (Rita L2, C2)
Father be+SG3 // I+GEN / book. (Yes / and what does the girl say then?) R: Ymm / *What is to have?* (Norg) (Yes I have something’ R: Ymm. (Ymm.) R: ‘The father has my book.’

The first constituent in possessive construction is not an NP-constituent in the nominative, but a constituent in the adessive case, referring to possessor. The bilinguals always produced this construction correctly, as in example (25). There were only three sentences produced by the classroom learners where the possessive construction was used. In example (26), the possessive construction is used correctly; the possessor is a pronoun in this example. The same pronoun was used in a correct possessive construction in another example. In Finnish child language, the possessive construction is used first with pronouns referring to possessor or names before the nouns are used (Toivainen 1980:102). In example (27), this structure is

not used. Therefore, this sentence could formally be analysed as a complement sentence, but the semantics argued against this interpretation.

Examples (28) to (30) are state constructions:

- 28) noo se äiti sanoo että herätys on aamu ja... (Pekka, C1)
be+SG3 morning 'Yes, the mother says that wake up it is morning and...'
- 29) Ei oo nälkä. (Kalle, C1)
not+SG3 be+NEG hungry 'I am not hungry.'
- 30) herää // se on koulupäivä. (Siri, C1)
It be+SG3 school-day 'Wake up it is a school day.'

In state construction, the verb *olla*, which starts the sentence, only gets one argument. This means that dummy subject constructions are not used in Finnish. The verb *olla* can form a construction either with a noun or with an adjective. This structure often expresses a point of time, as in sentence (28). This structure is also used to express a physiologic state, as in sentence (29). This is one of the common uses of this structure, too.

The classroom learners produced only one expression that could be analysed as a state sentence, even if Finnish construction was not used (30). This sentence showed interference with the Norwegian sentence type, where a dummy subject, *det*, 'it,' is used.

Sentences (31) and (32) are idioms.

- 31) että se on / samaa mieltä. (Pekka, C2)
that it be+SG3 / same+PAR opinion+PAR 'That she agrees.'
- 32) Isä. Ole hyvä.(Elin, C2)
Daddy. Be+IMP good. 'Daddy. Here you are.'

The expression *Olla samaa mieltä* means that one agrees or shares the same opinion with somebody else. Example (40) is a common phrase of politeness in Finnish.

The verb *olla*, in the same way as other verbs, can be used to answer yes/no questions.

- 33) (No onko sulla päämääränä tulla /oikein hyväks hiihtäjäksi?) Pekka: Noo onhan / on kaj. (Pekka, BL, I)
Yes, be+SG3+CLI / be+SG3 perhaps.
(Do you have a goal to become a very good skier?) P: 'Yes, I have / I have perhaps.'
- 34) (Onko sinulla neljä / ehh... onko sinulla sisko?) Elin: On. (Elin L2, I)
Be+SG3 (Do you have four / do you have a sister?) Elin: 'Yes.'

The answer to yes/no questions in Finnish is either repetition of the verb, or *kyllä*, 'yes,' or *ei*, 'no' (Hakulinen & Karlsson 1979: 281, Hakulinen & al. 2004: 1147-1150). In example (33), an adverb of uncertainty modifies a repetition of the verb *olla*; in example (34), only the verb is used. Such an answer is a minimal answer to a yes/no question (look at Hakulinen & al. 2004: 1147-1148). Both of these examples were answers to questions by the interviewer. Yes/no answers may also have been reported answers or answers that a comic strip figure gave in the fictive discussion and which were reported by the informant.

The last category is the expressions, including the verb *olla*, which were fragments or sentences where the informants did not complete their sentences.

- 35) He on... / åå ka det heter. (Berit L2, C1)
They be+SG3 'They are ... / *What is it called* (Norw.)?

Fragments are usual in spoken language, and they occur when the speaker plans what to say next or when the speaker changes the plan before the utterance is finished. The classroom learners produced more fragment sentences than the bilinguals did. Sometimes, an informant stopped her sentence in Finnish and started to use Norwegian. If this Norwegian expression was a sentence, as in example (35), I interpreted the Finnish expression as a fragment. If the informant inserted a Norwegian word in the Finnish sentence, as in sentence (16), the sentence was not interpreted as a fragment.²⁸

In this chapter, the uses of the verb *olla*, 'to be,' in different constructions types in the oral tasks were presented. The bilinguals produced both general and special constructions with this verb without problems. Only one specific construction, the so-called quantifier construction, was produced using a complement construction instead.

The classroom learners most often produced constructions with complements. The complement sentence type is an easy sentence type in Finnish because both subject and complement are often, though not always, in the basic form, that is, in the nominative. Puro (2002: 75) concluded that this construction is the most frequent construction produced by adult Finnish L2 learners. Another general construction, the intransitive construction with the adverbial argument, also was correctly produced the most often. The classroom learners, then, seemed to know better the general constructions than the specific constructions of the verb *olla*. In state construction, a dummy subject argument was used, and the possessive construction was produced with the case allative correctly only when the possessor was a pronoun. The existential construction was produced using a formulaic expression, a presentation *tässä on*, 'here is.'

6.2.2. Use of verb *olla* in essays

The same analysis as in the oral tasks was done on the sentences, including the verb *olla*, 'to be,' in the essays. The categories of the constructions including the verb *olla* were the same as in the oral tasks, except the category of yes/no questions, which did not exist in the essays. The last category included not fragments, but 'other cases.'

²⁸ In the case of using a fragment, the informant switched code from Finnish to Norwegian; in the case of using a Norwegian word in a Finnish sentence, the informant either used two codes in the same sentence or mixed two codes. In both cases, it was a question of transfer from the mother tongue of the classroom learners; the function was probably to solve a problem of lexical or structural gaps when communicating in Finnish (see Ellis, R. 1994: 28). Code switching, including questions on how to define the terms code switching, borrowing, and code mixing, is a large research field of bilingual language use (see for examples in Kovacs 2001, Engen & Kulbrandstad 2004). Because code switching in bilingual language use is described as demanding high fluency in languages used in switching (Engen & Kulbrandstad 2004: 80), bilingual code switching and code switching of language learners may have a different function. According to Kovacs, bilinguals' code switching may in some cases function as 'life buoy,' meaning that switching occurs because of gaps in language used in conversation; the function of switching is to continue conversation (2001: 220). So, there may also be similarities concerning the code switching of language learners and bilinguals not yet discovered.

Table 6.3Construction, including verb *olla*, 'to be,' in essays of bilinguals (BL) and classroom learners (L2)

	BL		L2	
	Number	%	Number	%
Subject complement	34	37,4	47	44,8
Adverbial	12	13,2	14	13,3
Existence	14	15,4	15	14,7
Possession	8	8,8	14	13,3
State	7	7,7	6	5,7
Auxiliary	10	11	6	5,7
Dummy question verb	0	0	1	0,95
Verb string	6	6,6	0	0
Other cases	0		2	1,9
Total	91	100	105	100

The percentages of constructions where *olla* was used were more similar in the essays than in the oral tasks. Again, the classroom learners did not have any examples of the verb string uses of the verb *olla*. In both informant groups, *olla* was most often used in sentences with complements, as in the orals. Even though the frequency of *olla* as an auxiliary verb, as a dummy question verb, and as an infinitive in verb string constructions is presented in Table 6.3, the examples are presented in chapter 7 because these uses of *olla* are not examples of nominal encoding.

Because sentences with complement form the largest group, they are presented more narrowly in Table 6.4.

Table 6.4

Types of complements in essays of bilinguals (BL) and classroom learners (L2)

	BL		L2	
	Number	%	Number	%
Adjective Phrase	21	61,8	33	70,2
Noun Phrase	8	23,5	11	23,4
Quantifier	0	0	3	6,4
Sentence	4	11,8	0	0
Other	1	2,9	0	0
Total	34	100	47	100
Adjective Phrase				
Head	13	61,9	30	90,9
Mod. + Head	8	38	3	9,1
Noun Phrase				
Head	1	12,5	6	54,5
Mod. + Head	7	87,5	5	45,5

Adjective phrases and noun phrases are analyzed further to head and to modifier + head

In examples (36) to (38), the verb *olla*, ‘to be,’ is used with an adjective phrase complement. Example (36) is from the bilinguals, and examples (37) and (38) are from the classroom learners.

- 36) Minun koulu tänäpäivänä on aika huono. (Tiina BL, E2)
I+GEN school today be+SG3 quite bad. ‘My school today is quite bad.’
- 37) Ihmiset ovat oikein mukavia. (Rita L2, E2)
People+PL be+PL3 very nice+PL+PAR ‘The people are very nice.’
- 38) Luokkahuone on iso ja mukava ja monivärinen. (Vivi L2, E2)
Classroom be+SG3 big and nice and many-coloured
‘The classroom is big and nice and has several colours.’

In the essays, as in the orals, an adjective complement was more frequently used than a noun complement by the bilinguals. Adjective phrases often included a modifier, for example, *aika*, ‘quite’ (example 36).

In the group of classroom learners, there were more complement sentences with an adjective phrase than there were sentences with a noun phrase, which was in contrast to the oral tasks, in which the classroom learners most often used a noun phrase as the complement. So, concerning which type of complement sentences the informants produced, their production looked more similar in the essays than in the oral tasks.

In the essays, the classroom learners produced complex adjective phrases, including a modifier. An adverb of intensity as a modifier was used only a few times, as *oikein*, ‘very,’ in example (37). Besides using a modifier, there were also other ways to produce more complex adjective complements. One way was to use coordinated adjectives, as in example (38). The classroom learners used coordination more often than the bilinguals, who only had one example of coordinated adjectives used as complements. The classroom learners also used many adjectivized participles like *väsynyt*, ‘tired’; *ärtynyt*, irritated; or *ruskettunut*, ‘suntanned.’ So, the classroom learners not only produced more sentences with complements, including an adjective phrase in the essays compared to the oral tasks, but these adjective phrase complements also were more complicated in the written tasks than in the oral tasks. Again, one may assume that the classroom learners had found many of these adjectives in the dictionary.

In examples (39) to (41), the complement is a noun phrase.

- 39) Maanantai on pahin päivä viikossa. (Kalle BL, E1)
Monday be+SG3 worst day week+INE ‘Monday is the worst day of a week.’
- 40) Saaren nimi on ”Satumainen ikikukka ja ikivihreä.”(Vivi L2, E1)
Island+GEN name be+SG3 fantastic ever-flower and ever-green.
‘The name of the island is “Fantastic everlasting flower and evergreen.”’
- 41) Vihreä on minun mielivärinen. (Berit L2, E2)
Green be+SG3 I+GEN favourite-colour. ‘Green is my favorite colour.’

A modifier used in a noun phrase as a complement is most often an adjective, which can be in the superlative, as in example (39) from the bilinguals. In this sentence, there also was a local case expression that modified the head noun of the complement, the words *viikossa*, ‘in a week,’ which made these noun phrases more complicated.

In the examples of the classroom learners, a noun phrase may have included a modifier that could have been either an adjective (40) or a pronoun (41). The classroom learners used coordination to form more complicated complement phrases, as in example (40).

In example (42), there is a sentence complement, and in example (43), there is an expression of measurement.

- 42) Huono puoli on että koulu on aika iso (Anna BL, E2, että = että)
Bad side be+SG3 that school be+SG3 quite big.
‘A bad side is that the school is quite big.’
- 43) Kellon on seitsemän päivällä. (Vivi L2, E1.)
Clock+GEN be+SG3 seven day+ADE. ‘The clock is seven in the daytime.’

Sentence complements were used only by the bilinguals. Complements expressing measurement were not used as frequently in the written tasks as in the oral production of the classroom learners. Such complements may have expressed age or time, as in example (43).

The next largest group of sentences where the verb *olla*, ‘to be,’ was used was the sentences with an adverbial constituent. Examples (44) and (45) are from the bilinguals, and examples (46) to (48) are from the classroom learners:

- 44) Minä ja Guro oltiin ekstassisa. (Mari BL, E1)
I and Guro be+PASS+PAST ecstasy+INE ‘I and Guro were very delighted.’
- 45) He olivat nähneen kun olin ollut laulamassa ungdommens kulturmöstringissä. (Tiina BL, E1)
They be+PAST+PL3 see+PCP+GEN when be+PAST+SG1 be+PCP sing+INF3+INE
youth+GEN cultural occasion (Norw.)+INE
‘They have seen when I had been singing in the cultural occasion for the youth.’
- 46) Yhtäkkiä minä olen taakaisin sängyssa. (Vivi L2, E1)
Suddenly I be+SG1 back bed+INE. ‘Suddenly I am back to my bed.’
- 47) Minun aurinkolasit ovat nenän. (Rita L2, E1)
I+GEN sunglass+PL be+PL3 nose+GEN. ‘My sunglasses are on my nose.’
- 48) Mari on koulussa yksi viikona (Rita L2, E2)
Mari be+SG3 school+INE one week+ESS ‘Mari is at school one week.’

Most often, the adverbial expressed a concrete place in the production of the bilinguals. In sentence (44), the adverbial expressed state, but the adverbial also could express time sometimes. In example (45), there are both a 3rd-infinitive inessive and a locative adverbial constituent; in this case, the 3rd infinitive expressed progressive aspect (see Kangasmaa-Minn 1978: 287). The locative adverbial is a loan from Norwegian; however, it is inflected in the Finnish case.

An adverbial constituent most often expressed concrete location in sentences with the verb *olla* in the production of the classroom learners. The adverbial may have been a noun phrase in a local case, as in example (46), or sometimes an adverb like *ulkona*, ‘out.’ In the written tasks, the locative adverbial was always marked with a case, though not always with the case that expressed location (most often inessive or adessive). For example, Rita used the genitive case to express locality (example 47). The locative adverbial was sometimes an adverbial of time in the production of the classroom learners, as in example (48).

Examples (49) to (52) are existential sentences.

- 49) Ostoskeskuksessa on vaatekauppa ja kenkäkauppa. (Anna BL, E1)
Shopping-center+INE be+SG3 cloth-shop and shoe-shop.
‘In the shopping center there are a cloth shop and a shoe shop.’
- 50) Ruokalassa on monta oppilat. (Berit L2, E2)
Dining-room+INE be+SG3 many+PAR pupil+PL
‘At the dining room there are many pupils.’
- 51) Se on yksi ranta täällä ja monta palmuta. (Vivi L2, E1)
It be+SG3 one beach here and many+PAR palm+PAR
‘There is one beach here and many palms.’
- 52) Tässä on minun hieno päivä: Rauhallinen mutta hyvä!! (Rita, E1)
Here be+SG3 my fine day: Peaceful but good!
‘This is the fine day of mine: Peaceful but still good!’

Existential construction was used more often in the essays than the oral tasks by both informant groups. In particular, bilingual Anna often used the existential sentence type (example 49); in essay 2, she used six existential sentences. In addition, the classroom

learners used the existential construction of Finnish quite often. In all these examples, the verb *olla* was inflected in the 3rd-person singular, although the subject of the sentence was in the plural, as in example (51). Actually, the pronoun *monta*, ‘many,’ despite its meaning, is a singular form. Therefore, the following noun also ought to have been in the singular, but a plural form was used (example 50). The fact that *olla* was inflected in the singular in these sentences did not necessarily indicate that the informants had control over the Finnish existence construction in its entirety. The explanation may be that the 3rd-person singular form is a very frequent form of *olla* and was overused by the classroom learners.

Example (51) expresses existence. The structure of this sentence, in contrast to the sentences mentioned previously, did not follow the existential sentence structure in Finnish. An impersonal subject *se*, ‘it,’ starts the sentence, and the ordinary subject of the sentence comes after the verb. The locative adverbial constituent is the last constituent in the sentence. This structure is that of the existential sentence in Norwegian and in other Scandinavian languages, so a transfer error was found in this example (see Löflund 2002: 15). Example (52) is a similar type of presentation as was found in the oral tasks. This presentation did not have the form of the Finnish existential construction, but the function was the same, namely the presentation. The construction demonstrated how prefabricated formulas are used at the beginning of language learning (see examples 23 and 24 and Tomasello 2003: 149).

In examples (53) to (55), the verb *olla* was used in the Finnish possession construction, where the possessor was in the adessive case at the beginning of the sentence and the verb *olla* was inflected in the 3rd-person singular.

- 53) Meillä ei ole ilmastointilaitetta. (Tiina BL, E2)
 We+ADE no+SG3 be+NEG air conditioner+PAR
 ‘We don’t have any air conditioner.’
- 54) Hänellä on vaea, lyhyt tukka ja siniset silmät. (Berit L2, E1)
 She+ADE be+SG3 blond short hair and blue+.PL eye+PL
 ‘She has blond, short hair and blue eyes.’
- 55) ja pojat ovat siniset puserot ja tytöt ovat punaiset puserot. (Berit L2, E2)
 And boy+PL be+PL3 blue+PL shirt+PL and girl+PL be+PL3 red+PL shirt+PL
 ‘and the boys have blue shirts and the girls have red shirts’

Both groups, especially the classroom learners, used the possession construction more often in the essays than in the oral tasks. The bilinguals always produced the possessive construction correctly (example 53). The classroom learners used the correct construction of Finnish quite often, as in example (54). Sometimes, the structure of the possessive construction was not the structure of Finnish, as in example (55). Formally, example (55) is a complement sentence, and it was only on the basis of semantic analysis that these sentences could be identified as the possessive construction. The possessive construction is a difficult one to learn in Finnish; the classroom learners made errors in this construction not only in the oral tasks but also in the essays. Still, Berit, who produced the possessive construction using the nominative case of the possessor, as in example (55), also produced correct possessive constructions in cases where the possessor was a pronoun *Hänellä on*, ‘He has’; *Meillä on*, ‘We have.’ It seems, then, that she mastered the possessive construction in constructions with the pronouns better.

In the oral tasks, this construction was produced correctly only with pronouns referring to the possessor. This demonstrated an item-based mastery of this construction, similar to what has been found in Finnish child language development (Toivainen 1980: 102; see also Tomasello 117-122).

Examples (56) to (58) are examples of state sentences.

- 56) Oli maanantai. (Kalle, E1)
Be+PAST+SG3 monday 'It was Monday.'
- 57) On eräs hieno päivä (Rita, E1)
Be+SG3 fine day 'It is one fine day.'
- 58) Se on sununtai (Berit, E1)
It Be+SG3 Sunday. 'It is Sunday.'

The bilinguals produced the state construction of Finnish correctly, as in example (56), where the state sentence expressed time. In contrast, only one of the state sentences of the classroom learners had the Finnish construction, according to which the verb *olla* only gets one argument (example 57). In all other examples, a dummy subject was used against the structure of Finnish, as in example (58), which is a transfer error from Norwegian because a verb cannot begin a sentence in Norwegian.

The informant groups were more similar in the essays than in the oral tasks regarding their use of the verb *olla*. This was the case concerning the types of constructions used by *olla* in Finnish and the number of adjective phrases and noun phrases as subject complement. Still, the special constructions with the verb *olla* were not always produced by the classroom learners using the Finnish construction.

6.2.3. Use of other copula verbs and bleak verbs in idioms in oral tasks

Examples (59) to (61) present the use of *tulla*, 'come,' and *mennä*, 'go,' as copula verbs in an expression of state of change (59) and in idioms (60) and (61). All the examples are from the bilinguals.

- 59) Aion tulla rikkaaksi. (Tiina BL, I)
Aim+SG1 come+INF1 rich+TRA 'I aim to become rich.'
- 60) Joka päivä ois ollu kotona ni / ois aika menny pitkäks. (Tiina BL, I)
Be+CON+SG3 time go+PCP long+TRA
'If one had been at home every day the time will have become boring.'
- 61) Menee hitaasti / lukea näitä suomalaisia kirjoja. (Kalle BL, I)
Go+SG3 slowly / read+INF1 these+PAR Finnish+PL+PAR book+PL+PAR
'It takes time to read these Finnish books.'

In Finnish, there is no verb expressing 'to become something'; rather, two different constructions, including the verb *tulla*, 'to come,' are used instead (see Hakulinen & al. 2004: 861). One of these constructions was used in example (59). In this construction, the first NP was in the nominative case, and the second NP was in the translative case. The construction expressed a change of state.

In examples (60) and (61), the verb *mennä*, ‘to go,’ was used as a copula verb. In example (60), the idiom *menee pitkäksi*, ‘to take a long time,’ was used to express that time is getting boring.

A Norwegian construction, *Det går sakte å gjøre noe*, ‘It goes slowly to do something,’ is a model of the expression in example (61). The verb *mennä* was not used independently, but in combination with the adverb *hitaasti*, ‘slowly’; therefore, the verb *mennä* could have an infinitive argument. A state construction could be used in Finnish instead: *On hidasta lukea suomalaisia kirjoja*, ‘It is slowly to read Finnish book,’ but the expression used in example (61) may also be used in oral Finnish.

6.2.4. Use of other copula verbs and bleak verbs in idioms in essays

The verbs *tulla*, ‘to come,’ and *mennä*, ‘to go,’ were used as copula verbs or as verbs in idioms in the following examples from the bilinguals:

- 62) että minusta tulisi laulaja. (Tiina BL, E1)
That I+ELA come+CON+SG3 singer ‘that I should become a singer’
- 63) Kun kellosta tuli kaksitoista... (Pekka BL, E 1)
When clock+ELA come+PAST+SG3 twelve ‘When the clock became twelve...’
- 64) Mieliala tuli nopeasti huonoksi (Kalle BL, E 2)
Atmosphere come+PAST+SG3 quickly bad+TRA
‘The atmosphere became bad quickly.’
- 65) Hei Pekka, miten meni. (Kalle BL, E 2.)
Hi, Pekka, how go+PAST+SG3 ‘Hi, Pekka, how did you succeed?’

In examples (62) and (63), a special construction in Finnish called *tuloslause*, ‘result construction,’ was used. In this construction, the first NP expressed the referent where the change takes place; this constituent was in the elative case. The second NP, or the complement, was in the nominative case (Hakulinen & Karlsson 1979: 98; Löflund 2002: 9-10). In contrast to the construction presented in the previous chapter, which expressed a sudden change, this construction expressed that the change was a gradual development from one state to another (look at Hakulinen & al. 2004: 860-861).

In example (63), the result construction had an extended use. The reason may have been that the Norwegian verb *bli*, ‘to become,’ can be used in expressions equivalent to this Finnish sentence type and in expressions of time: *Klokka ble tolv*, ‘It’s twelve a clock.’ The Norwegian verb *bli* ‘to become’ profiles change, but because the Finnish result construction profiles a gradual change, it cannot be used in a frame of a clock. So, example (63) was a transfer error from Norwegian.

The verb *tulla*, ‘to come,’ was often used as ‘to become’ in the essays. The bilinguals used the verb *tulla* 14 times in the essays; *tulla* was used as ‘to become’ 4 times. In example (64), the construction expressing temporal change was used. In this example, a single verb could have been chosen, namely, the verb *huonota*, ‘to get worse,’ but Kalle chose an analytic expression, the verb *tulla* + adjective/adjectivized participle, instead. Tiina once used a

similar construction, *tulla väsyneeksi*, ‘to become tired,’ instead of using a single verb, *väsyä*. A Norwegian expression, *å bli dårlig*, ‘to become bad,’ and *å bli trøtt*, ‘to become tired,’ may have been the models for these expressions.

In sentence (65), the verb *mennä*, ‘go,’ was used independently in the idiom *Miten meni?* ‘How did you succeed?’ The Norwegian verb *gå*, ‘go,’ could be used in the same way: *Hei Pekka, hvordan gikk det?* ‘Hi, Pekka, how did you manage?’ Still, the expression is a common phrase in Finnish.

Following are two examples from the classroom learners:

- 66) Minä tullen iloinen. (Elin L2, E 1.)
I come+SG1 glad. ‘I will become glad.’
- 67) Omistasjan tulen minä. (Elin L2, E1)
Owner+GEN come+SG1 I ‘I will become the owner.’

The classroom learners used the verb *tulla*, ‘to come,’ as ‘to become’ in the essays. In six of nine sentences where *tulla* was used, this verb expressed ‘to become.’ None of the constructions expressing change was used in these examples, but example (66) seemed to be the construction expressing a sudden change (*Minä tulen iloiseksi*), as well as example (67), which seemed to be an expression where the ‘result construction’ was used (*Minusta tulee omistaja*). However, because the marking of cases in these examples did not follow those markings in the Finnish constructions, it is only an interpretation of the function of these two expressions.

6.3. Primary A verbs (Concrete verbs)

6.3.1. Verbs of space²⁹

Verbs profiling the position of a person or a thing are called *verbs of space* in the present study. In Finnish, verbs of space express the position of a person or an animate subject more often than they express the position of an inanimate subject (Pajunen 2001: 116). The verbs of space encode the lying, sitting, and standing positions of a person, or they express that a person is living somewhere (Pajunen 2001: 113-120, Hakulinen & al. 2004: 1433). Other languages may encode differently. For example, in Scandinavian languages, the position of inanimate objects is encoded by a lexical verb differently from Finnish. The verb *ligge*, expressing position in the Norwegian sentence *Boka ligger på bordet*, ‘The book is lying on the table,’ is verbally encoded, whereas in the corresponding Finnish sentence *Kirja on pöydällä*, the position of the referent is not verbally encoded; rather, the copula *olla*, ‘to be,’ is used instead. Because space is the frame where the verbs are used to profile different positions of subject argument, an adverbial of location often is an obligatory argument connected to some verbs in this macro frame.

According to Oinikki, there are few pure stative verbs expressing space in Finnish. She mentioned the verbs *nukkua*, ‘to sleep,’ and *maata*, ‘to lie’ (1997: 95). In Finnish, there are

²⁹ I use the term verb of space of verbal encoding of space. As pointed out in chapter 6.1.4. these verbs are states, but because mental verbs are also states, I make a difference between a larger group of verbs called states and those used when space is encoded verbally.

many other possibilities to express state besides using verbs, for example, those presented in Section 6.2.

6.3.1.1. Verbs of space used in oral tasks

Table 6.5 presents the verbs of space used in the oral tasks:

Table 6.5

Verbs of space in oral tasks of bilinguals (BL) and classroom learners (L2)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
	ASUA	ASUA	ASUA	ASUA	Live
ISTUA			ISTUA	ISTUA	Sit
NUKKUA					sleep 3
Berit	Elin	Rita	Siri	Vivi	
ASUA	ASUA		ASUA	ASUA	Live
NUKKUA		NUKKUA	NUKKUA		sleep 2

Examples (68) and (69) are from the bilinguals, and examples (70) and (71) are from the classroom learners:

- 68) ku pittää istuu / tuolilla koko päivän ja kirjottaa ja / ... (Pekka BL, I)
 because must+SG3 sit+INF1 / chair+ADE
 ‘because one has to sit on the chair the whole day and to write and ...’
- 69) Se sanoo / että se ei halua mennä nukkumaan (Anna BL, C1)
 She say+SG3 / that she not+SG3 want+NEG go+INF1 sleep+INF3+ILL ‘
 ‘She says that she don’t want to go to bed.’
- 70) Eee / ei / minä haluan / nukkua. (Siri L2, C1)
 No / I want+SG1 / sleepINF1 ‘No, I want to sleep.’
- 71) Minä asun / K-dal. (Elin L2, I)
 I live+SG3 K-dal. ‘I live in K-dal.’

A common verb expressing the act of sitting, *istua*, was used by the bilinguals in the oral tasks (example 68). The verb *nukkua*, ‘sleep,’ encodes a lying position, which has a purpose, according to Pajunen (2001: 115); actually, this verb encodes a physiological state because it is also possible to sleep in other positions besides lying. The classroom learner used *nukkua* as an infinitive argument to the verb *haluta*, ‘to want’ (example 70), and the bilingual Anna expressed the same thing using an idiomatic Finnish expression, where *nukkua* was connected to a motion verb *mennä*, ‘to go’ (example 69). No argument was connected to the verb *nukkua*

in these examples because the frame where the verb is used is the physiological state, not physical space.

A common verb in the informant groups was *asua*, ‘to live,’ a verb that the informants used only in the interview, where this verb was elicited by the questions. An adverbial of location is an obligatory argument with *asua*. The classroom learners used an adverbial argument in the correct local case most often with this verb, but once, the adverbial of location was in the basic form (example 71), perhaps because the place name was Norwegian.

6.3.1.2. Verbs of space used in essays

There were many same verbs expressing space in the written and in the oral tasks, as Table 6.6 demonstrates.

Table 6.6

Verbs of space in essays of bilinguals (BL) and classroom learners (L2)

BL:						
Anna	Kalle	Mari	Pekka	Tiina		
				ELÄÄ	Live	
ISTUA			ISTUA		Sit	
		MAATA			Lie	
NUKKUA	NUKKUA	NUKKUA	NUKKUA		Sleep	
				ODOTTAA	Wait	6
	SEISOA					
L2:						
Berit	Elin	Rita	Siri	Vivi		
ISTUA	ISTUA		ISTUA	ISTUA	Sit	
NUKKUA			NUKKUA		Sleep	
			SEISOA		Stand	
				SAARTAA	Surround	4

The following examples present how verbs of space were used in the essays:

- 72) ... minä maan pellola Ritan kanssa. (Mari BL, E1, maan = makaan.)
I lie+SG1 ground+ADE Rita+GEN with. ‘I am lying on the ground with Rita.’
- 73) Siellä elin hyvin loppu elämän. (Tiina BL, E1)
There live+SG1 well rest life+ACC ‘There I lived well the rest of my life.’
- 74) Minut lennettiin sinne ja siellä odotti hieno talo. (Tiina BL, E1.)
There wait+PAST+SG3 fine house. ‘I was flyed there and there a fine house was waiting (for me).’
- 75) Yöllä minä nukun sängyssä ja uneksijan (Berit L2, E1)
Night+ADE I sleep+SG1 bed+INE ‘At night I sleep on the bed and dream.’

- 76) Sitten me istumme minun katosvuodella (Siri L2, E1)
Then we sit+PL1 I+GEN canopy-bed+ADE. ‘Then we sit on my canopy bed.’
- 77) Kun minä kävelen minulle huonelle minä näyttää yksi mahtailija poika joka seisoo ovissa. (Siri L2, E1).
Who stand+SG3 door+PL+INE
‘When I walk to my room I see one boastful boy who stands at the door.’
- 78) Puiston saartaa tunturit. (Vivi L2, E2)
Park+ACC surround+SG3 mountin+PL ‘The park is surrounded by the mountains.’

The verb *maata*, ‘to lie,’ is the most neutral verb to encode a lying position of a referent, usually a person or a living creature (Pajunen 2001: 114). Only Mari used this very common verb in her essay (example 72). This verb has a consonant gradation, which is a difficult one, and it may have caused the informants to avoid using this verb. I will present the informants’ errors in verb conjugation in chapter 7.

The verb *elää* has the neutral meaning ‘to live’ (Pajunen 2001: 117). The verb *elää* can have an locative adverbial argument, but it is also possible that this verb is used with the so-called ‘object of content’ as an argument, a construction where the noun *elämä*, ‘life,’ is used as an object argument of the verb *elää*, as in example (73; look at Hakulinen & al. 2004: 886).

Tiina used the verb *odottaa*, ‘to wait,’ in her essay. Pajunen called this verb an aspectual verb of space (2001: 118). An adverbial of location was used with this verb, as in example (74).

In the essays, the verb *nukkua*, ‘to sleep,’ was often used as an infinitive argument to the verb *mennä*, ‘to go,’ in a common expression *mennä nukkumaan*, ‘go to sleep,’ by the bilinguals, in the same way as in the oral tasks, and the frame to use the verb was a physiological state. In example (75), an adverbial of location was connected to the verb *nukkua*, and then the verb profiled a lying position in physical space beside the physiological state.

In the essays, the verb *istua*, ‘to sit,’ was used by both informant groups. An adverbial of location was used with this verb in all examples, as in example (76). The adverbial expressing location was in the inessive or the adessive case most often in the essays of the classroom learners. Only once did Elin use an adverbial of location in the basic form.

The verb *seisoa*, ‘to stand,’ usually encodes a standing position of a person or a living creature (Pajunen 2001:114). Only 2 informants used this very common verb. An adverbial of location was also connected to this verb, as in example (77).

The verb *saartaa* expresses rest, so it is a verb of space (look at Pajunen 2001: 119). This verb is so rare that it is not found in the *FD*; it is not an oral verb either, so one could assume that Vivi used the dictionary to find this verb. The majority of verbs of space get an adverbial of location as an obligatory argument. The verb *saartaa* is one of the few verbs in Finnish that expresses the location of the subject argument in relation to the object argument, as in example (78; Hakulinen & al. 2004: 455).

6.3.2. Verbs of action

Most prototypical verbs in the macro frame of action verbs are causative verbs that have a volitional agent, that is, a human agent whose actions cause change in an object or create a new object (Pajunen 2001: 147-154; Hakulinen & al. 2004: 454).

The action verbs can express a causative change of state, for example, *tappaa*, 'to kill.' Verbs expressing change of state have two obligatory arguments, and the agent's action causes change in the patient. Verbs of action may also express manipulation of some already existing object, for example, *maalata*, 'to paint'; *sahata*, 'to saw'; or *siivota*, 'to clean.' Verbs of action also express creation of an object, for example, *rakentaa*, 'to build'; *leipoa*, 'to bake'; or *säveltää*, 'to compose.' Only verbs expressing a causative change of state have an obligatory object argument. Other verbs may get an object argument, but the argument is not always overtly used if the focus of an action is on the activity, not the result. . Even then, these verbs include the semantic role of *patient* implicitly (Pajunen 2001: 150-151). Even then, these verbs include a semantic role patient implicitly (Pajunen 2001: 150-151). For example, the verb *syödä*, 'to eat,' implies that the agent eats something. So, these verbs have two arguments semantically, although they do not have them syntactically. Verbs that often occur without an overt object are verbs like *laulaa*, 'to sing,' where the object is included in the verb semantics (*sisällön objekti*, 'object of content') or verbs expressing physiologic actions, like *syödä*, 'to eat.' Verbs expressing activities are also 'corporeal verbs,' those used to express that someone is taking care of his body, for example, *pestä*, 'to wash,' or *kammata*, 'to comb.' There are also verbs of action that do not get an object argument at all, for example, *tapella*, 'to quarrel' (Pajunen 2001: 164-168).

Many verbs of action are causative verbs. Causativity can be the semantic characteristics of a verb, as in the case of the verb *tappaa*, 'to kill,' or causativity can be expressed using a causative derivation (Hakulinen & al. 2004: 456). Pajunen called the first type lexical causative and the second type morphological causative (2001: 121-137). Derivation is a widely used means to produce words in Finnish, and there are many causative suffixes to produce causative verbs. Some of the causative derivatives are still transparent; some of them are lexicalised. Lexicalisation is a gradual process: A word can more or less be lexicalised, and the same word can exist as a lexicalised word or as a transparent derived word (Hakulinen & al. 2004: 187-188).³⁰

³⁰ A derived word is transparent if the meaning of it is clear when one knows the meaning of the root and the meaning of the suffix. The root also exists as an autonomous element in language. If a derived word is lexicalised, then it is not easy to deal it to root and suffix, or there exists no clear root (Karlsson 1983: 246-247). There are three types of transparent causative derivations in Finnish. The verb *kiehuttaa*, 'to cook,' is the first type. It is derived from the intransitive verb *kiehua*, 'to boil'. In this type, a volitional or a physical causation changes the subject argument of an intransitive verb into the object of a transitive verb. The argument that is a goal for a change has lot of patient features. The most typical suffix to cause this type of causation is the suffix -(t)A. Typical for this type is also that the causative verb has a pair verb, the so-called passive-automatic verb, including suffix -U-, like the verb pair *kiehuttaa*, 'to cook' and *kiehua*, 'to boil'. (Pajunen 2001: 136; Räisänen 1988: 17; Hakulinen & al. 2004: 306, 309). The causative verb *syöttää*, 'to feed,' is an example of a second type of causative derivatives in Finnish. This verb is a causative derivation of a transitive verb *syödä*, 'to eat', but the causation does not cause any change in the goal of causation. *Syöttää* represents not a direct causation, like *kiehuttaa*, 'to cook something,' but an indirect or inducive (*vaikuttava*, see Pajunen 2001: 40) causation:

Because derivation processes were not the focus of this study, I did not collect derived verbs systematically. I only paid attention to causative or other derivations produced by the informants when the informants seemed to have problems using derived verbs correctly. Verb derivations, including causative derivations, are also used in other semantic groups, not only in the group of action verbs, even though many verbs of action are causative derivations.

6.3.2.1. Verbs of action used in oral tasks

Table 6.7 illustrates the verbs of action in the oral tasks.

Table 6.7

Verbs of action in oral tasks of bilinguals (BL) and classroom learners (L2)

BL:						
Anna	Kalle	Mari	Pekka	Tiina		
			HARJOITELLA		Train	
		HERÄTTÄÄ	HERÄTTÄÄ		Wake up	
JUODA					Drink	
				KÄYTTÄÄ	Use	
			LEIKKIÄ		Play	
			PELATA		Play a game	
		SOITTAA			Play an instrument	
SYÖDÄ	SYÖDÄ	SYÖDÄ	SYÖDÄ	SYÖDÄ	Eat	
			TAPELLA		Fight	
TEHDÄ	TEHDÄ	TEHDÄ		TEHDÄ	Do, make	
			VOITTA	VOITTA	Win	11

someone causes someone to eat. The goal of causation has agent features in second type, contrary to the first type. Only the derivative suffix -(U)ttA can occur with this second type of causative (Pajunen 2001: 136-137, 40). When the second type of causative is concerned, not only a transitive verb but also an intransitive activity verb can be the verb that gets the causative suffix (Pajunen 2001: 136). For example, the verb *herätä*, ‘to wake up,’ an intransitive verb in Finnish, has a causative derivative *herättää*, ‘to wake somebody.’ The third type is the so-called affective causative, called *tunnekausatiivi* in Finnish, for example, *vihastua*, ‘to become angry’ - *vihastuttaa* ‘to make someone angry’ (Pajunen 2001: 137, Hakulinen & al. 2004: 313-314). There are examples of the two first types of causatives in my material, but not any examples of the third type.

L2:

Berit	Elin	Rita	Siri	Vivi	
JUODA	JUODA		JUODA	JUODA	Drink
		LEIKKIÄ			Play
		PELATA		PELATA	Play a game
SYÖDÄ			SYÖDÄ	SYÖDÄ	Eat
TEHDÄ				TEHDÄ	Do, make
		TREENATA			Train

Following examples are verbs of action used in the oral tasks:

- 79) Että äit käypi herättämäsä lapsen. (Pekka BL, C1)
That mother go+SG3 wake+INF3+INE child+ACC
'That mother goes and wakes up the child.'
- 80) Ja sitten se äiti kyssyy että mistä ne tapeloo (Pekka BL, C2)
And then the mother ask+SG3 that what+ELA they quarrel+SG3
'And then the mother asks that what are they quarrelling about?'
- 81) Ja sit / teen läksyjä ja syön ja / (Mari BL, I)
And then / make+SG1 home-work+PL+PAR and eat+SG1
'And then I do the homework and eat and...'
- 82) Minä syön leipää ja juon / ehhh / ka er melk? (Berit L2, I)
I eat+SG1 bread+PAR and drink+SG1 / *what is milk* (Norw).
'I eat bread and drink (in Norwegian) what's milk?'
- 83) Mikä sinä / teet koulussa tänään? (Berit L2, C1)
What you / do+SG2 school+INE today 'What do you do at school today?'
- 84) Pelaa / jalkapalloa. (Rita L2, I)
Play+SG1 / football+PAR 'I play football.'

The verbs *herättää*, 'to wake up,' and *käyttää*, 'to use,' were causative derivatives; therefore, they had an obligatory object argument, as in example (79). The verb *tapella*, 'to quarrel,' does not have an object argument, but an adverbial in Finnish (example 80). The verb *voittaa* can have an object argument, but this verb may also focus only on the activity. In the interview, this verb was used only in the frame of the Lotto game 'to win on Lotto'.

Also the verb *tehdä*, 'to make,' gets an obligatory object argument. Because this verb has a common meaning, it can be used in many frames. In the interview, it was used when the informants explained that they were doing homework after school, as in example (81). The classroom learner Berit used this verb many times but only in questions similar to example (83). Such questions are usual in the textbooks of Slotte (1987, 1991).

Many verbs of action in the oral tasks focus on an action or the result. Verbs like *syödä*, 'to eat,' and *juoda*, 'to drink,' express physiologic actions (Pajunen 2001: 165-168) and are used with or without an object. Both these verbs were relevant in the dialogue in comic strip 1

because the pictures showed the family at the breakfast table and in the café. In example (81), the verb *syödä* focused on the action of eating, not on the result.

In example (82), the verb *syödä* was used with an object, but the example also demonstrated that the classroom learners sometimes had problems finding expressions for food and drink. Still, the object in the partitive case was used correctly in this example. Words expressing food and drink occur in the partitive case most often in Finnish.

Also, the verbs *harjoitella*, ‘to train’; *leikkiä*, ‘to play’; *pelata*, ‘to play a game’; *soittaa*, ‘to play an instrument’; and *treenata*, ‘to train’ focus on the action rather than the result, so they can be used with or without an object argument. Many of these verbs were used in the interview, describing the free-time activities of the informants, but some of them also were used in the comic strip tasks. In example (84), an object in the partitive case was connected to the verb *pelata* correctly. This might have been because the verb and its argument were learned together as a phrase; another example of a verb used in the sport frame with the case partitive was *treenata tenkondoa*, ‘to train tenkondo.’ These are examples of item-based constructions in the production of the classroom learners (see Tomasello 2003: 117-122).

6.3.2.2. Verbs of action used in essays

There were more verbs of action in the essays than there were in the oral tasks; many of the same verbs were used in both the oral and the written tasks. Verbs of action in the essays are presented in Table 6.8.

Table 6.8

Verbs of action in essays of bilinguals (BL) and classroom learners (L2)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
				HARJOITELLA	Practise
			KALASTAA		Fish
	KIEHUTTAA				Cook
			KORJATA		Repair
			KÄYTTÄÄ	KÄYTTÄÄ	Use
			PAISTAA		Fry
	PELATA		PELATA		Play
			PESTÄ		Wash
	PIILOTTAA				Hide
	PUKEUTUA				Dress
			PURSKATA		Rinse
		SOITTAA			Ring, phone
	STARTATA				Start
SYÖDÄ	SYÖDÄ		SYÖDÄ		Eat
SYÖTTÄÄ					Feed
	TEHDÄ	TEHDÄ	TEHDÄ		Make, do
			VAIHTAA		Change over
				VALLOITTAA	Conquer, win
	VOITTAA		VOITTAA		Win
	VÄÄNTÄÄ				Turn on
					20
L2:					
Berit	Elin	Rita	Siri	Vivi	
AUTTAA					Help
JUODA		JUODA			Drink
	KÄYTTÄÄ				Use
LAITTAA		LAITTAA			Make
			LEIPOA		Bake
			LOPPUA ?		To cause to end (pro lopettaa)
			MUUTTAA		Change
				PELATA	Play
			RENTOUTUA		Relax
			SULKEA		Close

Many action verbs were individual verbs only used by one of the informants in the essays. The male informants in particular produced many action verbs in the essays. Also, earlier studies showed that boys use action verbs more often than girls do (Buss 2002: 198).

I will present the examples first and comment on them afterwards:

- 85) Enään ei tarvitse käyttää kirjoja... (Tiina BL, E2.)
Anymore no+SG3 need+NEG use+INF1 book+PL+PAR
'Nobody need to use books anymore...'
- 86) Istutaan varmaan vain kotona, tietokoneen kanssa ja tehdään tehtäviä jotka tietokone itse korjaa. (Pekka BL, E2)
sit+PASS certainly only home+ESS, computer+GEN with and make+PASS home-work+PL+PAR which+ACC+PL computer self correct+SG3
'It will be usual to sit at home; one will work with the computer and make home work which the computer will correct.'
- 87) Me soitimme 'billeteservice' ja saatiin lipput, siten soitettiin lentokentälle. (Mari BL, E1).
we phone+PAST+PL1 'ticket service' (Norw.) and get+PASS+PAST ticket+PL+ACC, afterwards we phone+PASS+ PAST airport+ALL 'We phoned to the "ticket service" and got the tickets afterwards we phoned to the airport...'
- 88) Äiti seiso keittiössä ja teki turskaa ja kiehutti pottuja. (Kalle BL, E1).
make+PAST+SG3 cod+PAR and cook+PAST+SG3 potato+PL+PAR '
'Mother stood in the kitchen and made cod and cooked potatoes.'
- 89) Tämmönen koulu olisi ihan ok minun lapsille, luulisin niin ei tarvia vaihtaa niin paljon tätä koulua. (Pekka BL, E2)
suppose+CON+SG1 so not+SG3 need+NEG change+INF so much this+PAR school+PAR 'This kind of school could be completely OK for my children, I should suppose, so one doesn't need to change the school so much.'
- 90) Pesin hampaat ja purskasin semosta huuhdotusainetta. (Pekka BL, E1)
wash+PAST+SG1 tooth+PL+ACC and rinse+PAST+SG1 such+PAR rinsing-water+PAR 'I brushed my teeth and rinsed them with such rinsing water.'
- 91) Minä en haluan tehdä valituksen. (Rita L2, E2)
I not+SG1 want+SG1 make+INF1 complaint+ACC '
'I don't want to make a complaint.'
- 92) Minä syömme makkara ja juon limsa. (Berit L2 E2)
I eat+PL1 sausage and drink+SG1 soda.
'I eat sausage and I drink soda.'
- 93) Joukkuet pelaavat toisiaan vastaa. (Vivi L2,E2).
team+PL play+PL3 other+PL+PAR+POSS against
'The teams play against each other.'
- 94) Tänään teidän pitäisi autaa koulu laitta kotisivua, opettaja sanoo. (Berit L2, E2.)
Today you+PL+GEN must+CON+SG3 help+INF1 school make+INF1 home-page+PAR, teacher say+SG3
'Today you ought to help the school to make a homepage, the teacher says.'

- 95) Minä loppun koulussa kello kymmenen ja ... (Siri L2, E1, loppun = lopetan)
I end+SG1 school+INE clock ten and 'I am ready at school at ten o'clock and....'

The verbs *käyttää*, 'to use,' and *pelata*, 'to play,' were used in both types of tasks. These verbs could be used in different frames. Kalle and Pekka referred to playing games with the verb *pelata* in the essays. Vivi used the same verb when she wrote about playing football at school (example 93). Pekka referred to the use of the computer with the verb *käyttää*, and Tiina used the same verb referring to the use of books in the school (example 85); the classroom learner Elin used this verb in the same way as Tiina. So, these verbs seemed to be useful because they could be used in different frames. Also, the verbs *harjoitella*, 'to train,' and *soittaa*, 'to phone,' could be used in different frames, so they occurred in the orals and in the essays. Tiina used the first one of these verbs referring to practicing singing for a concert. The verb *soittaa* could be used in the frame of telephoning, as in example (87), where *soittaa* means 'to phone.' In the first of the sentences, where the verb *soittaa* was used in example (87), the verb argument was not inflected in the local case in Finnish because a Norwegian expression was used,³¹ which the informant marked using brackets in her text.

The verbs *korjata*, 'to repair' (example 86), and *startata*, 'to start,' profiled manipulating an object, and these verbs could also be used in many frames. The verb *startata* could also have been classified as a verb of transitive motion because it sometimes expresses that something starts to move. Still, this verb was used to profile object manipulating in a computer frame; therefore, it could be classified as a verb of action.

There were many causative derivations in the essays, especially in the production of the bilinguals. Causative derivations were, for example, the verbs *kiehuttaa*, 'to cook'; *syöttää*, 'to feed'; *piilottaa*, 'to hide'; *valloittaa*, 'to conquer' or 'to win'; *käyttää*, 'to use'; *voittaa*, 'to win'; *auttaa*, 'to help'; *muuttaa*, 'to change'; and *laittaa*, 'to make.' All these verbs are derived by the suffix *-ttA*. The verbs *kalastaa*, 'to fish'; *vaihtaa*, 'to change'; *vääntää*, 'to turn on'; and *paistaa*, 'to fry,' are derived with the causative ending *-tA*. These verbs represented both transparent causative verbs and lexicalised causative verbs. The verb *paistaa* was used in different frames in the essays. It was used as a verb of event beside the verb of action. Causative verbs have an obligatory object argument, as in example (88), but some of these verbs may also have focused on the activity, not the result, as in the verb *kalastaa*, 'to fish.'

The verb *vaihtaa*, 'to change,' was used in example (89). Another verb meaning change, namely the verb *muuttaa*, may have been a better choice here instead of the verb *vaihtaa*. The verbs *vaihtaa* and *muuttaa* could profile the meaning 'to change' in some, but not in all frames. It was possible to use both these verbs in the frame of clothing, for example *Vaihdan /*

³¹ Code switching is usually presented as a phenomenon in oral language. This example as well as example (46), present code switching between Finnish and Norway in the essays of the bilinguals. In example (46), the Norwegian expression is inflected in the Finnish case, contrary to example (87), where the expected illative case is not used. Such 'bare forms' or uninflected forms are explained to occur in bilingual production because of a conflict between the matrix language (here Finnish) and the embedded language (here Norwegian; look at Kovacs 2001: 194). However, using brackets, the informant expresses that the Norwegian words are not a part of the Finnish structure.

Muutan vaatteet. ‘I change my clothes’; however, for example, in the frame of the human mind, only the verb *muuttaa* can profile the meaning ‘to change’: *Hän on muuttanut mieltään*. ‘He has changed his mind’. The verb *muuttaa* means that the substance of something is changed, as was the case in example (89); this is not the case with the verb *vaihtaa*. *Muuttaa* can also be used in the frame of motion in meaning ‘to move’.

The verbs *pestä*, ‘wash,’ and *purskata*, ‘rinse,’ profile taking care of one’s body. When used in the body frame, as in example (90), they could be called corporeal verbs. A more common way of saying ‘to rinse one’s teeth’ is to use the verb *purskutella*, which is a derivation of the verb *purskata*. One can ask if Pekka actually did not know this special derivation and used a more common conjugation type instead. Still, the verb *purskata* may be a dialect verb (example 90).

The verb *pukeutua*, ‘to dress oneself,’ is also a corporeal verb (look at Pajunen 2001: 166). Corporeal verbs, which express taking care of one’s body, may be semantically reflexive, like the verb *pestä*, ‘to wash.’ *Pukeutua* is morphologically reflexive; it is a reflexive derivation of the verb *pukea*, ‘to dress.’ Reflexive verbs are usually derived by an affix -UtU-, and they are transparent derivatives. The subject of a morphological reflexive verb is a human agent. This is a prototype of a reflexive verb, where the agent directs the action against his own body, usually through the hands (Koivisto, V. 1995: 40). Reflexive verbs are intransitive verbs syntactically, but semantically, they are transitive because the act of the verb is directed to the agent. Also, the verb *rentoutua*, ‘to relax,’ is a corporeal verb, which includes a derivative reflexive affix. The act of the verbs is directed to the human agent, which is the subject in the sentence. This verb was used by the classroom learner Siri.³²

The nuclear verb *tehdä*, ‘to do, to make’ is the only action verb that occurred in all the oral tasks and in both the essays in the group of bilinguals. The distribution of this verb in all tasks demonstrated the importance of this frequent nuclear verb, referring to an action in general meaning. Because of its generality, this verb could be used in many different frames, for example, in the frame ‘to make food,’ as in example (88). Another frame where this verb was used in the essays of the bilinguals was the frame of ‘making homework.’

Only one of the classroom learners used the nuclear verb *tehdä*, ‘to make,’ in the essays. Again, the nuclear verbs seemed to be used less frequently by the classroom learners. In example (91), this verb was used in an abstract frame, ‘making complaint.’ The object argument was incorrectly used in the accusative case in this example; in a negative sentence, an object in Finnish is always in the partitive case.

Beside *tehdä*, other verbs were used in the orals and in the essays by both informant groups. One of these verbs was *syödä*, ‘to eat,’ and in the group of classroom learners, also the verb *juoda*, ‘to drink,’ which occurred together with the verb *syödä*, so that the informants who

³² The verb *rentoutua*, ‘to relax,’ is a different kind of reflexive verb than the verb *pukeutua*, ‘to dress oneself,’ because it can refer to a more abstract action. The action can be directed not only to one’s body but also to one’s mind. However, abstract and concrete use forms a continuum. (Koivisto, V. 1991: 44-48). *Rentoutua* is derived from an adjective, not from a verb, like the verb *pukeutua* (Räisänen 1988: 94).

used the verb *syödä* also use the verb *juoda* (example 92). Also, the Finnish L2 learners in Puros's research often used these two verbs together (2002: 143). *Syödä* and *juoda* occurred often in the same texts in the textbook probably, and this was the reason they were entrenched together in memory. In example (92), the object arguments of these verbs were not in the partitive case, but in the basic form; however, in the written production, the marking of long and short vowels could also have been an orthographic problem.

In addition, the classroom learners used some causative derivations, the verbs *käyttää*, 'to use'; *laittaa*, 'to prepare, to make'; and *auttaa*, 'to help.' All these verbs take an object argument, even if the verb *auttaa* also can be used, even if it is focusing on action only. In example (94), the verb *auttaa* took an infinitive argument; the infinitive used with this verb usually is not the 1st- infinitive form, as in example (94), but the so-called 3rd- infinitive form. Besides the infinitive argument, this verb also has a noun as an object argument (*koulu*); therefore, this verb can be classified as a primary A verb in Finnish.

In example (95), Siri used the verb *loppua*, 'to end,' with a human agent as a subject argument instead of using the causative *lopettaa*, 'to end.' Both of these verbs profile the meaning 'to end,' but only the causative verb can be used in the human frame. The verb *loppua*, 'to end,' is a verb of event expressing change (see Pajunen 2001: 172-185). *Loppua* is an automotive derivative because the subject argument of this verb cannot be a human agent (See Kulonen-Korhonen 1985: 305). In many cases, the U-derivative has a causative pair of verb. This causative verb expresses action and can have a human agent. The causative pair of *loppua* is *lopettaa*, 'to cause to end.' The difference between the automotive derivation verb and the causative derivation verb was not always clear to the classroom learners. Siri used the verb *loppua* with a human agent as a subject argument in function of the causative *lopettaa*, 'to cause to end,' which is a causative verb of change (Pajunen 2001: 155-157). One problem of classification was how to classify examples in which the verbs were not used as they are used in Finnish. As pointed out in Section 4.7, the function was the basis to classify such deviant uses.

The verb *sulkea*, 'to close,' also expresses causative change. This verb is a lexicalised causative. There is no morpheme showing that the verb is a causative one. The classroom learner Siri used this verb as meaning 'to close one's eyes.'

6.3.3. Verbs of motion

There are two types of verbs in the macro frame of motion. The first type are verbs of motion expressing movement of a referent along a path; the second type are verbs of motion expressing movement of a referent that is not on a path. Both types of verbs can be either intransitive or transitive (Hakulinen & al. 2004: 470).

Intransitive verbs of motion along a path express that somebody is changing his place along a path to another place. Pajunen called these *verbs of locomotion*. Verbs such as *kävellä*, 'to walk,' and *juosta*, 'to run,' are typical verbs of locomotion. These verbs have a volitional agent who causes the movement. An intransitive verb not along a path expresses reflexive

motion. In the case of reflexive motion, the agent is not changing his place, but the body of the agent is moving in some way. These verbs can express controlled or uncontrolled movement, for example, *istuutua*, ‘to sit down,’ or *kaatua*, ‘to fall’ (Pajunen 2001: 198-211; look also at Hakulinen & al. 2004: 470-471).

Transitive motion verbs along a path are often causative derivations of intransitive motion verbs in Finnish, for example, *pudottaa*, ‘to drop,’ which is a causative derivation of *pudota*, ‘to fall.’ These verbs can be divided further into verbs of separation, such as *heittää*, ‘to cast’; *ampua*, ‘to shoot’; *lähettää*, ‘to send’; or *pudottaa*, ‘to drop’; verbs of transport, like *kantaa*, ‘to carry,’ and *tuoda*, ‘bring’; verbs of leaving something, like *jättää*, ‘to leave,’ or *hylätä*, ‘to desert’; and verbs of searching, like *etsiä*, ‘to search,’ and finding, like, *löytää* (Pajunen 2001: 226-231).

Another group of transitive motion verbs are handle verbs, encoding a motion caused by the human hand. These verbs are not along a path. To these verbs belong such verbs as *panna*, ‘to put,’ or *kerätä*, ‘to collect’ (Pajunen 2001: 231-238).

Motion verbs along a path can have two or sometimes even three adverbials of location in their argument structure, but motion verbs not along a path only have one adverbial of location, which usually expresses direction toward something (Hakulinen & al. 2004: 470).

Some of the motion verbs are very frequent, and these frequent verbs have a tendency to extend their meaning. They are polysemous, and besides having concrete meanings, they also have abstract meanings or they are used in metaphors or idioms (Voionmaa 1993: 3, 6; Hakulinen & al. 2004: 106). I present such meanings of motion verbs in this section, except when the verbs *tulla*, ‘to come,’ and *mennä*, ‘to go,’ are used either as copula verbs or as bleak verbs in idioms, which are presented in Sections 6.2.3 and 6.2.4.

Pajunen (2001) presented the verbs expressing possession as motion verbs. I will present these verbs as their own group and discuss their qualities as motion verbs later on.

6.3.3.1. Intransitive verbs of motion used in oral tasks

I will first present the intransitive verbs of motion in the oral tasks. Most of the motion verbs were found in comic strip 1 because the pictures presented figures moving from one place to another, but the bilinguals in particular also produced motion verbs in the interview.

Table 6.9

Intransitive verbs of motion in oral tasks of bilinguals (BL) and classroom learners (L2)

BL:						
Anna	Kalle	Mari	Pekka	Tiina		
	AJAA			AJAA	Drive	
			HIIHTÄÄ		Ski	
			HÖLKÄTÄ		Jog	
			JUOSTA		Run	
KÄVELLÄ					Walk	
			KÄYDÄ	KÄYDÄ	Go	
			LÄHTEÄ	LÄHTEÄ	Leave	
				MATKUSTAA	Travel	
MENNÄ	MENNÄ	MENNÄ		MENNÄ	Go	
	MUUTTAA		MUUTTAA	MUUTTAA	Move	
				NOUSTA	Get up	
			PYÖRÄILLÄ		Cycle	
TULLA	TULLA	TULLA	TULLA	TULLA	Come	13
L2:						
Berit	Elin	Rita	Siri	Vivi		
AJAA					Drive	
			HIIHTÄÄ		Ski	
KÄVELLÄ		KÄVELLÄ	KÄVELLÄ		Walk	
				KÄYDÄ	Go	
			LÄHTEÄ		Leave	
MENNÄ			MENNÄ	MENNÄ	Go	
				PYÖRÄILLÄ	Cycle	
RATSASTAA					Ride	
TULLA	TULLA			TULLA	Come	9

Following examples present how motion verbs were used in the oral tasks:

- 96) että / nyt ois aika nousta. (Tiina BL, C1)
that / now be+COND+SG3 time get-up+INF1 ‘that now it is time to get up’
- 97) No luem minä joskus / niitä lehtiä joita / joita tullee äitille postissa. (Tiina BL, I)
which+PL+PAR come+SG3 mother+ALL post+INE
‘I read sometimes/those magazines which / which the mother gets in the post.’
- 98) Kun mä olin pieni mää halusin tulla sirkuks.../ sessa. (Mari BL, I)
I want+PAST+SG1 come+INF1 circus+INE
‘When I was a child I wanted to get in the circus.’

- 99) ja tyttö kyssyy että millon ne lähtee uusia kenkiä ostamaan. (Pekka BL, C1)
when they go+SG3 new+PL+PAR shoe+PL+PAR buy+INF3+ILL
'And the girl asks when they are going to buy new shoes'
- 100) No hölkätään ja / pelataan jalkapalloa ja... (Pekka BL, I)
Jog+PASS and / play+PASS foot-ball+PAR and 'We jog and play football and...'
- 101) jaa iltapäivällä me menemme kenkäkauppaan ja osta / eh uusi kengät. (Siri L2, C1)
afternoon+ADE we go+PL1 shoe-shop+ILL '
'In the afternoon we go to the shoe shop and we buy new shoes.'
- 102) Minä tulee kauppassa / kello puoli neljä. (Berit L2, C1)
I come+SG3 shop+INE / clock half four 'I will come to the shop half past three.'
- 103) (L: Ja mitä koulua sinä käyt?) Minä kayn nyt / tässä koulusa. (Vivi L2, I)
I go+SG1 now / this+INE school+INE
'(L: And which school are you going to?) Vivi: I go to this school now.'
- 104) Ymm. ja äiti sanoo // Ymm...// kaksi minuuttia sinä / kävele / eh ss.. sän.../gyssä.(Rita L2, C2)
And mother say+SG3 // two minute+PAR you / walk / bed+INE
'and the mother says you must go to the bed after two minutes.'
- 105) Ensin minä / ajan bussi koulus... / koululle. (Berit L2, I)
First I / drive+SG1 bus school+INE.. / school+ALL
'First I drive with the bus to the school.'
- 106) Ei ei / ei minä hiihdän. (Siri L2, I)
No no / no I ski+SG1 'No no/no I ski.'

Intransitive verbs of motion are most often locomotion verbs. Only one, the verb *nousta*, 'to get up, to rise' (example 96) belongs to the group of reflexive motion verbs when it expresses that the position of one's body changes from a prone position to a standing position.

The verbs *mennä*, 'to go,' and *tulla*, 'to come,' lexicalise the path, and the motion is seen from the point of view of the speaker (Pajunen 2001: 209). Both *tulla*, 'to come,' and *mennä*, 'to go,' are nuclear verbs, according to Viberg (1993). Both of these verbs were used more often than the other locomotive verbs by the bilinguals (look at Table 5.10, chapter 5). The bilinguals used these verbs often with a 3rd-infinitive form in the illative case. In this construction, the motion verb is not primarily used to lexicalise the path because the construction motion verb + 3rd-infinitive in the illative case actually indicates that an action is about to begin, even though these constructions still have a connection to a motion in a locality, especially when an adverbial of locality also is used in the construction (Hakulinen & Karlsson 1979: 382). In example (97), the verb *tulla*, which is used in the expression 'to get something by post,' gets a dative adverbial, 'to whom.' In this expression, the verb *tulla* lexicalises the manner rather than the path. In example (98), the verb *tulla* was used to mean 'to get into, to manage to get into,' so the verb *tulla* had an extended use in this example because it was used instead of the verb *päästä* which is a modal verb in Finnish. An adverbial expressing place was connected to the verb *tulla* in example (98), violating the construction structure that is acceptable with the verb *tulla* in Finnish.

The verb *lähteä*, ‘to leave,’ lexicalises the path because it focuses on the starting point of the motion; this verb also can be used with an adverbial expressing ‘towards something’ (Pajunen 2001: 207). This verb was used with the 3rd-infinitive illative form to express that an action was starting, as in example (99). Also, the verb *muuttaa*, meaning ‘to move somewhere,’ lexicalises the path. This verb can be used in the macro frame of action profiling ‘to change something’ (see Table 6.8).

The classroom learners did not use infinitive constructions with the verbs *mennä*, ‘to go,’ and *tulla*, ‘to come,’ but only adverbials of location. Adverbials of location in the illative case expressed direction, as in example (101), but the classroom learners also used adverbials expressing place with the verb *tulla* (example 102). Such a construction is not possible with this verb. Instead of the Finnish construction of the motion verb and the 3rd-infinitive illative, Siri used two coordinating sentences, ‘We go and we buy,’ as in example (101).

The verb *käydä*, ‘to go, to visit,’ is an exception among verbs of motion because it takes a local case that expresses place as an adverbial constituent. This verb also expresses path, according to Pajunen, because it encodes a bidirectional motion on the path (2001: 209). The verb *käydä*, ‘to go, to visit,’ is a frequent verb in Finnish, but perhaps because of the special usage of this verb, the classroom learners used this verb only once in the oral tasks (example 103), though this verb is used frequently already in the first volume of Slotte (1991). Vivi actually took this verb from my question, but because she used it in her own expression and with a different argument structure than was used in the question, I accepted this verb as one of her verbs. Vivi used local case expressing place in her expression, usually with the verb *käydä*, but actually not used in the idiom, *käydä koulua*, ‘to go to school.’

Motion verbs can lexicalise both manner and path. Motion verbs such as *kävellä*, ‘to walk,’ and *juosta*, ‘to run,’ lexicalise path and the manner of motion. These kinds of motion verbs are more usual in Finnish than the locomotion verbs that only lexicalise path (Pajunen 2001: 194). It did not always seem to be clear to the classroom learners when to use the verb *kävellä*, ‘to walk,’ which also lexicalises the manner of motion beside the path, and when to use the more general verb *mennä*, ‘to go.’ In example (104), the verb *mennä*, ‘to go,’ had been more natural in Finnish. It is not always possible to use the Finnish verb *mennä* and the Norwegian verb *gå*, ‘to go,’ in the same frames. For example, the verb *gå*, ‘to go,’ is not used in the travelling frame where the Finnish verb *mennä* can be used (*mennä bussilla, ta /reise med buss* ‘to take the bus’). It seems like the verb *gå* profiles the act of walking rather than a general movement along a path, as the Finnish *mennä* does. Perhaps because the verb *mennä* is polysemantic and has many uses besides expressing movement along a path, the verb *kävellä* profiling walking was used by the informants. In example (104), the adverbial was in the inessive case, which expresses place, not direction; the latter would have been more natural in this sentence.

There were many motion verbs expressing manner in the oral production of both informant groups. Many of these verbs were produced in the interview when the informants spoke about their hobbies. Beside the verb *kävellä*, ‘to walk,’ the verbs *hölkätä*, ‘to jog’ (example 100) and *juosta*, ‘to run,’ described the manner of motion. The informants also used many verbs

that described motion when a vehicle or some other means of transportation was needed (Pajunen 2001: 200), for example, *hiihtää*, ‘to go on skis’; *pyöräillä*, ‘to cycle’; and *ajaa*, ‘to drive’ (example 105 & 106). These three verbs were used in both informant groups to refer to activities, but not so often when expressing the path.

6.3.3.2. Intransitive verbs of motion used in essays

Table 6.10 presents the intransitive verbs of motion that were used in the essays.

Table 6.10

Intransitive verb of motion in essays of bilinguals (BL) and classroom learners (L2)

BL:						
Anna	Kalle	Mari	Pekka	Tiina		
	AJAA				Drive	
	JUOSTA				Spring	
			HIIHTÄÄ		Ski	
	HYPÄTÄ		HYPÄTÄ		Jump	
KÄVELLÄ					Walk	
LÄHTEÄ			LÄHTEÄ		Leave	
MENNÄ	MENNÄ	MENNÄ	MENNÄ		Go	
				MUUTTAA	Move	
PYÖRÄILLÄ					Cycle	
	TULLA	TULLA	TULLA	TULLA	Come	10
L2:						
Berit	Elin	Rita	Siri	Vivi		
	AJAA		AJAA		Drive	
JUOSTA	JUOSTA		JUOSTA	JUOSTA	Spring	
KÄVELLÄ	KÄVELLÄ	KÄVELLÄ	KÄVELLÄ	KÄVELLÄ	Walk	
			LAANTUA pro KÄYDÄ MAKAAMAAN ?		Lie down	
				LÄHTEÄ	Leave	
	MENNÄ		MENNÄ		Go	
RATSASTAA	RATSASTAA				Ride	
TULLA	TULLA				Come, become	
		UIDA			Swim	9

The following examples illustrate how the informants used the locomotion verbs in the essays:

- 107) Sitte me mennään kahvilan. (Anna BL, E1)
then we go+PASS café+ILL ‘Then we go to the café.’
- 108) Minä ja isä lähettiin tunturille hiihtämään. (Pekka BL, E1)
I and father go+PASS+PAST mountain+ALL ski+INF3+ILL
‘I and the father went to ski on the mountain.’
- 109) Minulle tuli monta työtarjousta. (Tiina BL, E 1)
I+ALL come+PAST+SG3 many+PAR job-offer+PAR
‘I got many offers of job.’
- 110) ja niin koko aamupäivä meni. (Kalle BL, E 2.)
and so whole morning pass+PAST+SG3 ‘and that way the whole morning passed.’
- 111) Sitten sanoin yöta aidille ja isille ja hypäsiin sankyyn. (Pekka BL, E1).
Then say+PAST+SG1 nigh+PAR mother+ALL and father+ALL and
jump+PAST+SG1 bed+ILL
‘Then I said good night to mother and father and jumped into the bed.’
- 112) Hän tulee kotiin tänä iltana! (Berit L2, E1)
She come+SG3 home+ILL this+ESS evening+ESS ‘She comes home this evening!’
- 113) Lentokone lähtee kello pouli kahdeksan.(Vivi L2, E1.)
Plane leave+SG3 clock half eight ‘The plane leaves at half past seven.’
- 114) Minä kävelen kylpyhuonelle. (Siri L2, E1)
I walk+SG1 bathroom+ALL ‘I walk to the bathroom.’
- 115) Sina haluta ratsastaa hänet. (Elin L2, E1.)
You want+INF1 ride+INF1 he+ACC. ‘You want to ride on the horse.’
- 116) Minä juoksen lentokentälle. (Vivi L2, E1.)
I run+SG1 airport+ALL ‘I run to the airport.’
- 117) Mina uin merissa. (Rita L2, E1.)
I swim+SG1 sea+PL+INE ‘I swim in the sea.’
- 118) Minä hymyn ja laantuin kylpyammissa (Siri L2, E1).
I smile+SG1 and I abate+PAST+SG1 bath-tub+INE.
‘I smile and I am lying? / lie me down in the bathtub.

Many of the same motion verbs were used in the written and oral tasks. The nuclear verbs *tulla*, ‘to come,’ and *mennä*, ‘to go,’ occurred in both essays from both informant groups, although the bilinguals used these verbs more than the classroom learners did. Anna in particular used the verb *mennä* many times in the first essay. Example (107) presented the motion verb *mennä*, ‘to go,’ as expressing path in the production of the bilinguals. An adverbial expressing direction was connected to the motion verbs in most examples.

Besides expressions of path, the motion verbs were also used with the 3rd infinitive in the essays by the bilinguals, although motion verbs may also have indicated that an action was starting, as in example (108). A motion verb expressing manner, *hiihtää*, ‘to ski,’ was connected to the verb *lähteä*, and an adverbial of direction was also used in the sentence.

In example (109), the verb *tulla* was used to mean ‘to get.’ Here the verb *tulla* was used as a verb of possession. Actually, the possession verbs were classified as a subtype of motion verbs because a change of possession can be understood as an abstract motion (Pajunen 2001: 94).

In addition, the verb *mennä*, ‘to go,’ was used in other meanings besides expressing motion. In example (110), the verb *mennä* was used in an abstract meaning to show that time was passing. In this example, the verb *mennä* was used in a metaphoric meaning. A conventional metaphora is ‘time is motion’ (Cruse 2000: 208). Compared to examples (60), (61), and (65), where *mennä* was used in idioms, it was used as an independent verb in example (110).

There were also as many of the same motion verbs expressing manner in the essays as there were in the oral tasks. These were the verbs *ajaa*, ‘to drive’; *juosta*, ‘to run’; *hiihtää*, ‘to ski’; *kävellä*, ‘to walk’; and *pyöräillä*, to ‘cycle.’ Motion verbs expressing manner and path were more often verbs that only one informant used, as opposed to motion verbs expressing only path. There was only one verb, *hypätä*, ‘to hop, to jump,’ in the written tasks that the informants did not use at all in the oral tasks (example 111).

In the group of classroom learners, the verbs *tulla*, ‘to come’; *mennä*, ‘to go’; and *lähteä*, ‘to leave,’ (examples 112 & 113) expressing path, were used. Beside these common verbs expressing path, the verb *kävellä*, ‘to walk,’ was used frequently in the essays (example 114) in the same way as in the oral tasks. It was used by all of the classroom learners in the essays, and this verb, which expresses manner of motion, was used instead of the verb *mennä*, which expresses the path. The verb *mennä* possibly was not used because it is more polysemic than the Norwegian verb *gå*, ‘to go,’ as was pointed in the previous section (6.3.3.1).

Motion verbs expressing manner in the essays of the classroom learners were the verbs *ajaa*, ‘to drive’ and *ratsastaa*, ‘to ride’ (example 115); *juosta*, ‘to run’ and *uida*, ‘to swim’ (example 116). Besides *ratsastaa*, ‘to ride,’ this verb was the only motion verb used only by the classroom learners.

In examples (114) and (116), an adverbial of location expressing direction was used with a motion verb; in example (117), an adverbial of location expressing place was used. It is often possible to use an adverbial expressing place with a motion verb of manner, as opposed to a motion verb expressing only path (Pajunen 2001: 194, 209). In example (115), the verb *ratsastaa*, ‘to ride,’ seemed to take an object argument, but an adverbial of manner ought to have been used in Finnish to express ‘to ride on a horse’ instead.

In example (118), the verb *laantua* seemed to have been used incorrectly as meaning *käydä makaamaan*, ‘to lie down,’ because Siri had obviously looked at the Norwegian verb *legge seg*, ‘to lie down,’ in the dictionary. The verb *laantua*, ‘to quiet down, to abate, to calm down,’ profiles a change in the nature frame in Finnish, such as when a storm or the wind quiets down. *Myrsky laantui* is the example given in the dictionary; the Norwegian translation is *Stormen har lagt seg*³³ ‘The storm has quiet down.’ In Finnish, the verb *laantua* is a possible translation of *å legge seg* only in a non-human storm frame, but it cannot be used with a human subject. Because the function of Siri’s expression seemed to be *käydä makaamaan*, ‘to lie down,’ which is a reflexive verb of motion, the verb *laantua* is classified

³³The Norwegian verb *legge seg* profiles the meaning ‘to lie down’ both in the human and non-human frames; for example *Barnet legger seg*. ‘The child goes to bed’. *Snoen legger seg*. ‘The snow is falling.’ *Stormen har lagt seg* ‘The storm has quiet down’ seems to be a metaphoric extension of the basic meaning, because when something is lying down, it is also quiet.

as a verb of intransitive motion, again, the function is the basis of the classification (see Section 4.7). Still, it was not clear if Siri meant ‘lie me down’ or ‘I am lying’ because in the first case, the adverbial *kylpyammeessa*, ‘in the bath,’ ought to have been in the illative case with a verb expressing motion. However, the classroom learners often did not distinguish between case expressing place and case expressing direction.

6.3.3.3. Transitive verbs of motion used in oral tasks

Transitive motion verbs were not used as often as intransitive motion verbs were. The classroom learners did not have any examples of transitive motion verbs in their oral production.

Table 6.11

Transitive verbs of motion in oral tasks of bilinguals (BL)

BL					
Anna	Kalle	Mari	Pekka	Tiina	Shoot
	AMPUA				Pick up, collect
	HAKEA	HAKEA		HAKEA	Fly
	LENTÄÄ				Put
PANNA				PANNA	4

119) Se pitää panna se kengät päälle huomenna. (Anna BL, C1)
She must+SG3 put+INF1 it shoe+ACC+PL on+ALL tomorrow.
‘She has to put the shoes on tomorrow.’

120) Koitan / mennä / armeijaan / (ja) lentää helikopteria. (Kalle, BL, I)
I try+SG1 / go+INF1 / army+ILL / (and) fly+INF1 helicopter+PAR
‘I try to get in the army and fly a helicopter.’

There were both causative motion verbs and handle verbs in the production of the bilinguals in the oral tasks. *Panna*, ‘to put,’ is a handle verb (*asettamisverbi*, Pajunen 2001: 231), meaning that an agent is using the hands to move an object, as in example (119). Tiina used the verb *panna*, ‘to put,’ as meaning ‘to put aside, save some money,’ so in this instance, the verb *panna* could also have been a verb of possession. The meanings of handle verbs and verbs expressing possession are very similar; sometimes, verbs can belong to both groups (Pajunen 2001: 231). Besides object argument, many transitive motion verbs also have an adverbial expressing direction in their argument structure (Hakulinen & al. 2004: 471).

Pajunen classified the causative motion verbs further as verbs of separation, verbs of transport, and verbs of bringing (*erottamis-, kuljettamis- and hakemisverbit*; Pajunen 2001: 226-227). The verb *ampua*, ‘to shoot,’ is a verb of separation. *Ampua* expresses a caused motion of a little object (Pajunen 2001: 228). The verb *hakea*, ‘to pick up, to collect,’ is a verb of bringing. The verb *lentää*, ‘to fly,’ is a verb of transport. This verb is more often used as an

intransitive motion verb, but Kalle used this verb as a transitive verb, as in ‘fly an aircraft’ (example 120).

Thompson and Hopper suggested that frequency may be a determining factor in deciding the argument structure of a verb. They used the verb ‘to drive’ as an example. This is a two-argument verb because it can be used with a second participant, such as a car or a tractor. Usually, however, it is used with its object ‘deleted.’ This fact, according to Thompson and Hopper, determines the intuition that ‘to drive’ basically is a one-participant verb, so the frequency of use determines the intuitions of argument structure (2001: 45).

6.3.3.4. Transitive verbs of motion used in essays

In both informant groups, there were more transitive motion verbs in the essays than in the orals.

Table 6.12

Transitive verbs of motion in essays of bilinguals (BL) and classroom learners (L2)

BL:						
Anna	Kalle	Mari	Pekka	Tiina		
	HAKEA				Pick up, collect	
	HEITTÄÄ				Cast	
				LENTÄÄ	Fly	
	LÄHETTÄÄ				Send	
PAKATA					Pack	
	PISTÄÄ				Put	
				VIEDÄ	Take away	7
L2:						
Berit	Elin	Rita	Siri	Vivi		
			NOUTAA		Fetch	
				POIMIA	Pick up	2

121) Heitin vaatteet päälle ja juoksin ulos. (Kalle, E1.)
Cast+PAST+SG1 clothe+PL+ACC on+ALL ‘I cast the clothes on and run out.’

122) Minut lennettiin sinne ja siellä odotti hieno talo. (Tiina, E1).
I+ACC fly+PASS+PAST there and...
‘I flew there and there was a fine house waiting for me.’

123) Minut vietiin lentokoneella Osloon jossa minut vietiin hienoon hotelliin. (Tiina, E1).
I+ACC take+PASS+PAST air-plane+ADE Oslo+ILL which+INE I+ACC
take+PASS+PAST fine+ILL hotel+ILL
‘I was taken to Oslo by the airplane, and I was taken into a fine hotel in Oslo.’

- 124) Minä loppun koulussa kello kymmenen ja yksi Limousini minä noutaa. (Siri, E1.)
one limousine I pick+SG3.
'I will finish at the school at ten o'clock and one limousine picks me up.'

Also in the essays, the informants used both handle verbs and the three types of causative motion verbs: separation, transport, and bringing. These verbs usually take an object, even if some of them, for example, the verb *pakata*, 'to pack,' could also be used without an overt object.

The verbs *pakata* and *pistää* are handle verbs (Pajunen 2001: 233, 235). The verb *pistää* can be used in many frames in Finnish, and it profiles the meaning 'to prick, to stick' most often. In oral language, the verb *pistää* is also used in a meaning 'to put.' *Pakata*, 'to pack,' expresses that objects are placed in storage, for example, that clothes and other objects are backed in a bag or a suitcase. The verb *poimia*, which means 'to pick flowers or berries,' is also a handle verb.

Heittää, 'to cast' (example 121) and *lähettää*, 'to send,' are verbs of separation. The verb *heittää* usually expresses that the referents of subject and object are in the same place before the motion starts, but after the motion, the position of the object changes (Pajunen 2001: 227). In sentence (121), though, the verb *heittää*, 'to cast,' was not used in the prototypical way because the referents of the object and the subject were separated before the motion, but united afterwards. In example (121), this verb was used as a handle verb, like the verb *panna*, 'to put', but the verb *heittää*, 'to cast,' also encodes the manner of motion.

The verbs *viedä*, 'to take away'; *hakea*, 'to pick up, to collect'; and *noutaa*, 'to fetch,' are verbs of bringing; *lentää*, 'to fly,' is a verb of transport. *Lentää* was again used as a transitive, not an intransitive, verb (example 122). The verb *viedä*, 'to take away,' is a deictic verb of bringing because it decodes the motion from the perspective of the speaker. *Viedä* expresses bringing, which includes both subject and object changing place; the subject follows the object. In example (123), the verb was in the passive. The passive in Finnish always has a human agent, but it is not expressed overtly (Karlsson 1999: 172), so in this example, someone transported the writer to a hotel in Oslo.

There were only a few verbs of intransitive motion in the production of the classroom learners, though such verbs as *viedä*, *hakea*, *heittää* are used in the first volume of Slotte (1991); in addition, the verb *viedä* is one of the frequent verbs in this volume. Intransitive motion verbs like *panna*; *pistää*; *lähettää*; and *kerätä*, 'to pick up,' occur in the second volume of Slotte (1987). The classroom learners did not use any of these verbs, but in the essays, they used two verbs not found in their textbooks. The meaning of the verb *noutaa*, 'to fetch' (example 124) is the same as that of the verb *hakea*, which expresses that the subject and the object have different places before the motion, but are in the same place afterwards (Pajunen 2001: 227). In example (124), the object argument of this verb is not in the case of object, but in basic form.

6.3.4. Verbs of possession

The change of possession can be understood as a kind of abstract motion. An object that is possessed changes place often and also physically after the possessor changes. Possession verbs are sometimes used in the same way as handle verbs. Pajunen classified verbs that express possession as a subgroup of verbs of motion (2001: 94). Even if there is a close relationship between transitive verbs of motion and verbs of possession, there are also differences. Both types of verbs get three arguments (subject – object – adverbial); often, the semantic role of an adverbial involved in the possession construction is a recipient ‘to someone’ or a sender ‘from someone,’ but the semantic role of an adverbial in transitive motion construction is often locative. Possession verbs encode the change of possession relationship; handle verbs encode the change of object from one location to another (Pajunen 2001: 263). Still, it is not always possible to differentiate these constructions.

The state of possession is, of course, not a motion, but a static situation. In Finnish, there is no special verb to express possession, as there is in English and in many other European languages: *to have* in English and *at ha* in Scandinavian languages. Viberg called the possession verb *have* and the corresponding verbs a subareal characteristic of European languages. Still, such verbs are not used in the Finno-Ugrian languages, nor in Russian or the Celtic languages (1993: 348-349).

A special possession structure is used in Finnish to express possession (look at Section 6.2). There are also some verbs that express possession, for example *omistaa*, ‘to possess,’ and *kuulua*, ‘to belong to somebody.’ My informants used only the possession structure to express possession.

The possession verbs can be classified in different subgroups. There are verbs that express giving and taking, for example, *antaa*, ‘to give,’ and *ottaa*, ‘to take.’ Verbs like *ostaa*, ‘to buy,’ and *maksaa*, ‘to pay,’ express that an object is being exchanged for something, usually money; so these verbs are used in the commercial transaction frame (Croft & Cruse 2004: 16). The third group includes the possession verbs, which express that the possession is starting, going on, or concluding. These kinds of verbs, for example, *pitää*, ‘to hold,’ express not only possession but also aspect (Pajunen 2001: 258).

6.3.4.1. Verbs of possession used in oral tasks

Table 6.13 presents the possession verbs used in the oral tasks:

Table 6.13

Verbs of possession in oral tasks of bilinguals (BL) and classroom learners (L2)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
ANTAA	ANTAA	ANTAA	ANTAA	ANTAA	Give
				LAINATA	Borrow
(MAKSAA) ³⁴	MAKSAA	(MAKSAA)	(MAKSAA)		Pay
OSTAA	OSTAA	OSTAA	OSTAA	OSTAA	Buy
OTTAA	OTTAA	OTTAA	OTTAA	OTTAA	Take
PITÄÄ					Hold, keep
SAADA	SAADA	SAADA	SAADA	SAADA	Get
			SÄÄSTÄÄ		Save
					8
L2:					
Berit	Elin	Rita	Siri	Vivi	
ANTAA	ANTAA		ANTAA		Give
MAKSAA		MAKSAA		MAKSAA	Cost, pay
OSTAA			OSTAA		Buy
			OTTAA		Take
	SAADA			SAADA	Get
					5

The following examples show how verbs of possession were used in the oral tasks:

- 125) ja sit ne antaa sen kirjan sille / tytölle (Tiina BL, C2)
And then they give+SG3 it+ACC book+ACC it+ALL / girl+ALL
'And then they give the book to her / to the girl.'
- 126) Isä otti minulta / lehden. (Pekka BL, C2)
Father take+PAST+SG3 I+ABL / magazine+ACC
'The father took the comic strip from me.'
- 127) Mä haluan ottaa ne päälle. (Mari BL, C1)
I want+SG1 take+INF1 them on+ALL. 'I want to put them on.'

³⁴ The verbs in brackets belong to a discussion in the comic strips tasks where I asked the informants if they sometimes have been in similar kinds of situation as the comic figures. Because I did not ask these questions of the classroom learners, I did not count the verbs that the bilinguals produced when they answered these questions when I presented the number of verbs in chapter 4, but I will present verb lexemes in the tables in this chapter. The bilinguals did not produce very many verbs during this discussion, for example, the number of these verbs did not change the order of values of the informants expressed using the Guiraud Index in Table 4.5..

- 128) En tiiä. / Otan jonkun työn jossa saa.... / hyvän palkan. (Tiina BL, I)
I take+SG1 some+ACC work+ACC where get good+ACC salary+ACC
'I don't know. I will get a job where one can get a good salary.'
- 129) Nämä ovat kalliimpi mutta se tyttö haluaa pitää nämä (Anna BL, C1)
The girl want+SG3 hold+INF1 these+ACC
'These are more expensive, but the girl wants to keep these.'
- 130) Sinä otat tämä / eh... lehti / takaisin. (Siri L2, C2)
You take+SG2 this / comic-strip / back 'You take this comic strip back.'
- 131) Ka heter // ostaa auton jaa eh ... talon ja antaa rahaa eh... lapset. (Siri L2, I)
Buy+SG3 car+ACC and house+ACC and give+SG3 money+PAR child+PL
'What is it called (Norwegian) // buy a car and a house and give money to children.'
- 132) ehh äiti ei saa kuvakirjaa (Elin L2, C2)
Mother no+SG3 get+NEG picture-book+PAR
'The mother does not get the picturebook.'
- 133) Ym... // Kengät maksaa / paljon. (Vivi L2, C1)
Shoe+PL cost+SG3 / a-lot. 'The shoes cost a lot.'
- 134) Äiti sanoo osta // tuo kengät. (Berit L2, C1)
Mother say+SG3 buy+IMP // that shoe+PL+ACC
'The mother says: buy those shoes.'

The verbs *antaa*, 'to give,' and *ottaa*, 'to take,' belong to the nuclear verbs of Viberg, and they had a solid place in the production of the bilinguals. Also, the verb *saada*, 'to get,' which is one of the most frequent verbs in Finnish, was often used in the oral tasks by the bilinguals. These three possession verbs were highly dialogue-relevant, especially in comic strip 2 because the pictures actually described a situation where the father was demanding that his daughter give him the magazine she was reading.

All three verbs, *antaa*, *ottaa* and *saada*, can take three argumentsL subject, object and adverbial. However, the subject arguments of these verbs are different because the subject of the verbs *antaa* and *ottaa* have many agent features, but the subject argument of *saada*, 'to get,' is not the agent, but a recipient (Pajunen 2001: 262-263). All three arguments connected to these verbs were not necessarily overtly used in the examples because the expressions were often the lines of the comic strip figures, which the informants created, or they were replies by the informants during the interview, and arguments could be omitted because they were interpreted from the context. In examples (125) and (126), both an object argument and an adverbial argument could be found. The verb *antaa* got an abstract word *lupa*, 'permission,' as an object once. In example (127), the verb *ottaa*, 'to take,' was used as a handle verb meaning 'to put.' Handle verbs and possession verbs are near to each other in meaning; a verb of possession can often be classified as a handle verb (Pajunen 2001: 231). In example (128), the verb *ottaa* meant 'to get, to find a job'; in the same example, the verb *saada* was used to mean 'to get a salary.'

The verb *lainata* means 'to borrow' and 'to lend' in Finnish, so this verb does not encode who initiates the change of possession. Tiina used this verb to refer to borrowing books from the library (Pajunen 2001: 266). The verb *säästää*, 'to save,' used to mean 'to spare money,' and

the verb *pitää*, ‘to hold, to keep’ (example 129) are possession verbs expressing aspect, that is, the possession relationship is going to continue.

The classroom learners did not use the possession verbs as often as the bilinguals in the oral tasks. The possession verb used most often by this group was the verb *saada*, ‘to get’ (see Table 5.11); however, only 2 informants used this common verb, which is very frequently used in the first volume of Slotte (1991; see Appendix 12).

Also in the examples of the classroom learners, the possession verbs *antaa*, ‘to give’; *ottaa*, ‘to take’; and *saada*, ‘to get,’ had a number of arguments. These arguments were not always inflected in the correct case in Finnish, for example, the object argument was in the basic form, not in the case of object (example 130). The dative adverbial argument referring to the recipient was incorrectly used in the nominative plural (example 131). Because the adverbial argument in example (131) was the last argument, this error is not a transfer error from Norwegian. This is not the structure corresponding to ditransitive construction in Norwegian *Jeg gir Liisa ei bok*, ‘I give Liisa a book,’ but a structure corresponding to a transitive construction with a preposition phrase *Jeg gir boka til Liisa*, ‘I give the book to Liisa.’ The argument structure of the three argument verb *antaa* was produced correctly only once in the oral tasks by the classroom learners; this may have indicated that the number of participants complicated the learning of the argument structure (see Tomasello 2003: 215.)

The verbs *ostaa*, ‘to buy,’ and *maksaa*, ‘to pay,’ encode the exchange of the subjects with money; they belong to the commercial transaction frame (Croft & Cruse 2004: 16). In comic strip 1, both verbs were relevant for the dialogue because the situation in pictures described buying shoes. The verb *maksaa*, ‘to cost,’ often takes an expression of measurement or an object-related mesural adverbial as an argument (look at footnote 14), as in example (133). The verb *ostaa*, ‘to buy,’ was also used in the interview when the informants replied to the question about what they would do if they won the Lotto, the number-guessing pool on TV. All of the pupils, except Elin and Vivi, were asked this question in the interview, so these 2 pupils simply did not have an opportunity to use this verb in the interview. The verb *ostaa* has an object argument, as in example (134).

6.3.4.2. Verbs of possession used in essays

There were fewer verbs of possession in the essays than in the oral tasks, as Table 6.14 demonstrates.

Table 6.14

Verbs of possession in essays of bilinguals (BL) and classroom learners (L2)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
ANTAA		ANTAA			Give
OTTAA	OTTAA				Take
OSTAA					Buy
	SAADA	SAADA	SAADA	SAADA	Get
					4
L2:					
Berit	Elin	Rita	Siri	Vivi	
	MAKSAA				Pay
	MYYDÄ				Sell
	OTTAA	OTTAA			Take
	OSTAA		OSTAA		Buy
	SAADA			SAADA	Get
					5

The verbs of possession in the essays were, for the most, the same verbs as those in the oral tasks, with the verb *myydä*, ‘to sell,’ being the only exception. The following examples present possession verbs in the essays:

- 135) Saatin monta kalaa ja hiihettiin kotiin. (Pekka BL, E1.)
Get+PASS+PAST many+PAR fish+PAR and ski+PASS+PAST home+ILL
‘We got many fish and we skied home.’
- 136) Saimme 160 km/t sillä. (Kalle BL, E1.)
Get+PAST+PL1 160 km/h it+ADE.
‘We got (were able to drive) 160 km/ hour with it.’
- 137) Otin suklaalevyn ja söin sen. (Kalle BL, E1.)
Take+PAST+SG1 chocolate+ACC ‘I took the chocolate and ate it.’
- 138) Siksi kaikki pitää ottaa pyörä sisälle ja pyöräillä. (Anna BL, E1.)
Therefore all must+SG3 take+INF cycle in+ALL and cycle+INF1
‘Therefore all have to take the bicycle in and cycle.’
- 139) Tulevaisuudessa pitää antaa enemmän aikaa käytäntölle, koska siitä opii. (Mari BL, E2.)
Future+INE must+SG3 give+INF more time+PAR practise+ALL
‘In future, one must give more time to practise, because it is possible to learn from it.’
- 140) Minä toivon että minun lapset saavat hyvän koulun, ...(Vivi L2, E2).
I hope+SG1 that I+GEN child+PL get+PL3 good+ACC school+ACC
‘I hope that my children get a good school.’
- 141) Me ottamme aurinkoa ja me on ruskettunut. (Rita L2, E.)
We take+PL1 sun+PAR ‘We take the sun and we are sunburnt.’
- 142) Oppilaita otavat ei pitempi koulu bussi. (Elin L2, E1)
Pupil+PL+PAR take+PL3 no+SG3 longer school bus.
‘The pupils don’t take the school bus anymore.’

- 143) Me pysähtymme karkkikaupassa, ja minä ostan makeiset. (Siri L2, E1)
I buy+SG1 sweet+PL+ACC. ‘We stop in the confectioner’s, and I buy the sweets.’
- 144) Omistajan haluaa myydä Stjerna. (Elin L2, E1.)
Owner+GEN want+SG3 sell+INF Stjerna. ‘The owner wants to sell Stjerna.’

In a prototypical case, the object of possession is a concrete object (see Taylor 1995: 202), as in example (135). However, such a prototypical object is not the only possibility because the object of possession can also be something abstract (Pajunen 2001: 255). The informants often wrote about possessing something abstract in the essays: getting applause, getting permission, or giving time to something, as in example (139). Even if the goal of possession was something abstract in such examples, the verbs still expressed possessing (getting, giving, or taking) something.

In example (136), the verb *saada* had an extended use because it means ‘to manage to get.’ The verb *päästä*, ‘to get, to manage to get,’ could have been used in this sentence. The verb *tulla*, ‘to come,’ could have been used to mean *päästä*, as example (136) demonstrates. It could have been possible to classify this use of verbs *tulla* and *saada* as modal, but I did not do it because it was not possible to use any verb argument in these examples, so the modal use of these verbs was not similar to that of the modal verbs. These verbs still encode motion, as the verb *päästä* does (Kangasniemi 1992: 340), but the verb *päästä* also can have an infinitive argument.

The verb *ottaa* was used to mean ‘to bring something somewhere’ in sentence (138). The possession verb was used here as a causative motion verb, namely, the verb, *tuoda*, ‘to bring.’ In sentence (137), the verb *ottaa*, ‘to take,’ was used as a handle verb rather than a verb of possession. The meanings of handle verbs and possession verbs that express a change of possessor are similar. Sometimes, possession verbs can be classified in both groups (Pajunen 2001: 231). The verb *ottaa* is one of the most polysemic verbs in Finnish (see Nenonen 2002).

Mari used the verb *saada*, ‘to get,’ in the idiom *saada selkäsauna*, ‘to get a good beating.’ Idioms can be classified in many ways. One type of idioms is idiomatically combining expressions; according to Croft & Cruse (2004: 232), they are idioms ‘where parts of the idiomatic meaning can be put in correspondence with part of the literal meaning.’ This was the case with the idiom used by Mari because the verb *saada* ‘to get’ was a verb of possession in this idiom but the noun *selkäsauna*, ‘back sauna,’ was used metaphorically to refer to punishment. *Selkäsauna* seemed to have developed from the act of beating oneself or some other person in a sauna with a bunch of birch twigs, which is not an act of punishment. The metaphoric meaning ‘punishment’ can be associated to the literal meaning ‘beating with bunch of birch twigs’ in the sauna frame; however, the word *selkäsauna* is used only in the frame of punishment today.³⁵

³⁵ *Selkäsauna* is in Swedish *risbastu* ‘twig bath’, meaning ‘beating’. There are other words of punishment, which in their literal meaning belong to the sauna frame, like *löylyttää*, *antaa löylytys* ‘to give a person a good thrashing; the word *löyly* means ‘heat in sauna’.

The classroom learners used the verbs of possession in the written tasks less often than they did in the orals. Only one of them used many possession verbs; the verb *saada*, ‘to get,’ was used by the same informants as in the oral tasks.

Also, the classroom learners used the possession verbs in other meanings besides concrete meaning. In example (140), this verb referred to the abstract meaning, ‘to get a good school.’ In sentence (141), the verb *ottaa*, ‘to take,’ was used in an idiom *ottaa aurinkoa*, ‘to take the sun, to sun oneself.’ In this idiom, it was possible to identify both elements with their literal meaning; therefore, it also was an idiomatically combining expression (see Croft & Cruse 2004: 232). Still, the whole idiom can be understood in the body frame.

The verb *ottaa* was used to mean ‘to take a bus,’ as in example (142), so it was used as a motion verb. The verb of possession *ta*, ‘to take,’ was used to profile movement in Norwegian in the transport frame. Even if the verb *ottaa* was a transfer error from Norwegian in this example, this way of using *ottaa* is common in Finnish. The bilingual informant Anna used the verb *ottaa*, meaning ‘to take a bus,’ in essay 1.

The verbs *ostaa*, ‘to buy’ (example 143); *myydä*, ‘to sell’ (example 144); and *maksaa*, ‘to cost,’ belonging to the commercial transaction frame (Croft & Cruse 2004: 16), were used in the essays, but not as frequently as in the oral tasks. The object argument in example (143) was in the accusative case, but the basic form of the noun was used in example (144).

6.3.5. Other primary A verbs

The informants also used other primary A verbs besides those I have already classified. Because these verbs belong to several semantic groups, I gathered them together and will comment on the semantic groups when I present the verbs. These verbs are often verbs of events, expressing processes caused by physical causation. Verbs describing physiologic processes or change also belong to the verbs that I will present in this chapter.

6.3.5.1. Other primary A verbs used in oral tasks

Table 6.15 presents other primary A-verbs used in the oral tasks.

Table 6.15

Other primary A verbs in oral tasks of bilinguals (BL) and classroom learners (L2)

BL:						
Anna	Kalle	Mari	Pekka	Tiina		
	HERÄTÄ	HERÄTÄ		HERÄTÄ	Wake up (intr.)	
				HYMYILLÄ	Smile	
		KESTÄÄ			Hold	
		SYNTYÄ	SYNTYÄ	SYNTYÄ	Be born	
	TAPAHTUA		TAPAHTUA	TAPAHTUA	Happen	
				TÄYTTÄÄ	Fill, be	
	VAIHTAA?				Vary (pro vaihdella)	7
L2:						
Berit	Elin	Rita	Siri	Vivi		
			HERÄTÄ		Wake up (intr.)	
LOPPUA				LOPPUA	End	2

- 145) Ja myyjä sanoo että // ne kalliimmat ovat parempia / ne kestää enemmän. (Mari BL, C1)
they last+SG3 more
'And the expeditor says that those more expensive are better they will last longer.'
- 146) (Mihin aikaan sää aamulla yleensä heräät?) Kalle: Jaa jos... vaihtaa joskus puol kaheksalta joskus vartin yli kaheksan. (Kalle BL, I)
Yes some... change+SG3 sometimes half eight+ABL sometimes quarter+GEN over eight
(When do you wake up in the morning?) Kalle: 'Yes some (times)... it varies sometimes half past seven sometimes a quarte past eight.'
- 147) Koulu loppuu kello kaksi. (Berit L2, I)
School end+SG3 clock two. 'The school ends at two o'clock.'

The verb *hymyillää*, 'to smile,' conveys a physiologic process (Pajunen 2001: 280-282). The verb *herätä*, 'to wake up,' expresses a change of physiologic state³⁶ (Pajunen 2001: 277). This verb was used both in comic strip 1 and the interview.

The verbs *loppua*, 'to end'; *syntyä*, 'be born'; and *tapahtua*, 'to happen,' express that something happens. I classified these verbs as verbs of event (See Pajunen 2001: 168).

³⁶ If a verb expresses physiological state, like the verb *nukkua*, 'sleep,' it is classified as a verb of state (chapter 6.3.1). The causative derivation of the verb *herätä*, the verb *herättää*, 'wake somebody up,' is encoded to the action verbs (chapter 6.3.2).

According to Pajunen, verbs of events express either process or change. Verbs of events do not have much in common semantically. To these verbs of events belong, for example, the verbs that lexicalise events in nature (Pajunen 2001: 168-172).

Syntyä, 'to be born,' denotes that something starts to exist; the verb *loppua*, 'to end,' denotes that something is ending. Both verbs are verbs of event expressing change (see Pajunen 2001: 172-185). Hakulinen & al. (2004: 450) classified both the verb *tapahtua*, 'to happen,' and *syntyä*, 'to be born,' as verbs of existence; *tapahtua* is a verb of event expressing process.

The verb *tapahtua*, 'to happen,' is a kind of meta verb referring to an event more generally; the verb lexicalises that the event is not specified. This verb can take a proposition as a subject argument; a human argument cannot be the grammatical subject of this verb (Hakulinen & al. 2004: 450).

As Pajunen pointed out, the verb *loppua* also conveys aspect; it expresses that something will end (2001: 176). The same is true concerning the verb *syntyä*, which expresses that something has started to exist. Pajunen usually classified verbs that express aspect as secondary verbs. However, *loppua* does not have an infinitive argument, and neither does it accept a human grammatical subject; it is not the kind of verb that can modify other verbs, so this verb seems to have other qualities that aspectual verbs usually have (see Pajunen 2001: 52). The verb *loppua*, 'to end,' and the verb *tapahtua*, 'to happen,' are so-called automotive derivatives because the subject argument of these verbs cannot be a human agent. These verbs are unintentional, that is, they cannot be used in the passive voice in Finnish because the passive in Finnish implies a human agent, even though it is unspecified (see Kulonen-Korhonen 1985: 305; Siitonen 1999: 89-91).

The verb *syntyä*, 'to be born,' has a human subject argument, but this argument is not an agent, but a patient. The literal meaning of this verb is to profile that someone comes out of the mother's body in the body frame. According to Dixon, the corresponding English verb *be born* is a corporeal verb and belongs to the primary A verbs (1991: 119). Mari, Pekka, and Tiina used the verb *syntyä* in the interview when they told me where they were born.

Tiina used the verb *täyttää*, 'to fill, to be x years old,' when she mentioned how old she was. In its concrete meaning, this verb expresses *to fill*, for example, *Täytän kupin kahvilla*, 'I fill the cup with coffee.' In the literal use, this verb is a causative action verb that expresses change (see Pajunen 2001: 155-158); however, the verb also can be used in the human frame to profile the change of one's age. I classified this verb as a verb of event.

The verb *kestää*, 'to hold up,' has both concrete and mental uses (Flint 1980: 99-101). Mari used this verb in a concrete meaning, as in example (145), that is, the expensive shoes will hold up a longer time than the cheap ones will. I classified the concrete usage of this verb as a primary A verb because this verb also denotes an event expressing process.

The verb *vaihtaa*, 'to change,' usually profiles 'to change something' and is used in the macro frame of action. Kalle used this verb to mean that something varies, instead of using the Finnish verb *vaihdella*, 'to vary.' The last one is a frequentative derivation of the verb

vaihtaa, but it seemed to be difficult for the informant to identify any difference between these verbs. So, the verb *vaihtaa* was used as a verb of event, as in example (146).

The verb *loppua* was used in the interview to express that the school day was finished, as in example (147). This verb also was used as a causative verb instead of the verb *lopettaa*, ‘to cause to end,’ as in example (95).

6.3.5.2. Other primary A verbs used in essays

I classified more verbs as primary A verbs in the written tasks than in the oral tasks. I will classify these verbs further in different semantic groups when I present the verbs.

Table 6.16

Other primary A verbs in essays of bilinguals (BL) and classroom learners (L2)

BL:						
Anna	Kalle	Mari	Pekka	Tiina		
	HERÄTÄ				Wake up	
		KUKKIA			Blossom	
	MAALATA				Purr (pro kehrätä)	
	?					
		PAISTAA	PAISTAA		Shine	4
L2:						
Berit	Elin	Rita	Siri	Vivi		
			HERÄTÄ		Wake up	
			HYMYILLÄ		Smile	
NAURAA			NAURAA		Laugh	
PAISTAA		PAISTAA	PAISTAA	PAISTAA	Shine	
			PYSÄHTYÄ		Stop	
SOIDA					Ring	
SOITTAA					Ring (pro soida)	
?						
		TAPAHTUA			Happen	
UNEKSIA					Dream	
			VAIHTUA		Change	10

- 148) Mikä äänni. Se maalasi kun kissa. (Kalle BL, E1).
It purr+PAST+SG3 like cat. ‘What a voice!
It (= the snowmobile) was purring like a cat.’
- 149) Vuosituhat on vaihtunut. (Siri L2, E1)
Millennium be+SG3 change+PCP ‘The millennium has changed.’
- 150) Me pysähtymme karkkikaupassa, ... (Siri L2, E1)
We stop+PL1 confectioner+INE ‘We stop in the confectioner’s,’

The verbs *kukkia*, ‘to blossom,’ and *paistaa*, ‘to shine,’ encode events and processes that occur in nature. The physical causation causes the processes that these verbs describe (Pajunen 2001: 168). Informants in both of the groups used the verb *paistaa*, ‘to shine,’ to refer to the sun in the first essay, *One Fine Day*, in some stereotypical way.

Kalle used the verb *maalata* to mean ‘to purr,’ as in example (148). The verb does not profile this meaning in Finnish; the verb *maalata* in Finnish means ‘to paint’ and is used in the macro frame of action. The verb *maalata*, meaning ‘to purr,’ is a loan from the Norwegian verb *male*, ‘to purr.’ Pajunen classified the voices produced by animals as *physiologic reaction* (2001: 282).

The verb *herätä*, ‘to wake up,’ expressing a change of physiologic state (Pajunen 2001: 277), was used by both informant groups. The classroom learners used several verbs that the bilinguals did not use at all. The verbs *nauraa*, ‘to laugh’; *hymytä*, ‘to smile’; and *uneksia*, ‘to dream’ describe physiologic processes (look at Pajunen 2001: 280-282).

The verb *soida* was used in the telephone frame to profile the telephone sound ‘to ring.’ Berit used the causative verb *soittaa*, ‘to ring,’ to profile the sound of a school clock; however, the verb *soittaa* can only be used in a human frame to profile such meanings as ‘to telephone, to play an instrument.’ The difference between the causative and transitive verb *soittaa* and the intransitive *soida* was not clear to Berit.

The verb *vaihtua*, ‘to change,’ is a verb of event expressing change (see Pajunen 2001: 172-185); this verb is an automotive derivative like *tapahtua* because the subject argument of these verbs cannot be a human agent (see Kulonen-Korhonen 1985: 305). The verb *vaihtua*, ‘to change,’ was correctly used because the subject argument had a nonhuman referent, *vuosituhhat*, ‘millennium’ (example 198).

Tapahtua expresses event. The bilingual informants used this verb in the oral tasks, but only one of the classroom learners used this verb in the essays. The verb *pysähtyä*, ‘to stop,’ has a derivative suffix *-Ahta*, which is the suffix for single-event verbs (= momentaani) in Finnish that describes a change. Besides this suffix, the verb also has a derivative suffix U, which indicates in this case that the change only occurs for a short time (Räisänen 1988: 56).³⁷ A human subject argument can be used with this verb, as in example (150).

6.4. Primary B verbs (Mental verbs)

Primary B verbs can, on the basis of semantics, be classified as psychological verbs, perceptual verbs, and speech-act verbs. All these verbs are mental verbs that encode so-called *epistemic space*. Primary A verbs encode different kinds of concrete frames, and primary B verbs encode how a human being experiences or interprets these frames. Primary B verbs encode knowledge, the source of knowledge, and the degree of security of knowledge about

³⁷ The verb *tapahtua* also has a derivation suffix *-AhtU-* like the verb *pysähtyä*. Nevertheless, this verb is not a further derivation of a single-event verb like the verb *pysähtyä* (Räisänen 1988: 57).

the referential frames. Mental abilities and mental actions of human beings are lexicalised by primary B verbs (Pajunen 2001: 296-297).

The difference between primary A verbs and primary B verbs is in the kind of arguments and the roles used by these verbs. Among the primary A verbs are verbs that do not have human arguments, such as verbs of events, for example, verbs referring to processes in nature (Pajunen 2001: 171). The primary B verbs normally get a human, or at least a living, argument that can have different roles.³⁸ The subject argument of psychological and perception verbs has a role as an experiencer. Speech act verbs are actions (Pajunen 2001: 75); therefore, a subject argument of speech act verbs is an agent (Pajunen 2001: 299; 339-340).

The other difference between primary A and B verbs is syntactic; normally, only the primary B verbs have proposition arguments, which are different, sentence-like arguments. Sometimes, this kind of argument is an independent sentence, a subordinate sentence, a participial phrase construction, or an infinitive (Pajunen 2001: 53, 358). The primary A verbs do not usually have these kinds of arguments; these verbs only take NP-arguments. However, the verbs of motion and space take infinitive arguments in Finnish: *mennä syömään*, ‘go to eat’; *olla nukkumassa*, ‘to be sleeping’; or *istua lukemassa*, ‘to sit and read.’ These infinitives, which take a local case in Finnish, do not have the features of sentences (Hakulinen & Karlsson 1989: 232-233).³⁹ These constructions are common in Finnish, and the bilinguals used them frequently with the primary A verbs.

6.4.1. Psychological verbs

The psychological verbs are subclassified further as verbs of emotion and verbs of cognition. Verbs of emotion express different emotional conditions: happiness, hate, fear, and so on (Pajunen 2001: 310). Verbs of cognition express thinking, understanding, remembering, supposing, and so on. Cognitive verbs express evaluative knowledge of the human experiencer (Pajunen 2001: 313).

The verbs of emotion and the verbs of cognition have common and separate properties. The human argument in the sentence has a role as an experiencer, which is a more heterogeneous role

³⁸ In this respect, the primary B verbs, as classified by Pajunen, differ from the classification Dixon did of the verbs in English. According to Dixon, a group of verbs called *happening* is included in the primary B verbs in English. Such verbs as *to happen* or *to take place* do not carry any implication of a human agent (1991: 165), but actually, this looks like an exception among the primary B verbs in English; most of them have a human argument (see Dixon 1991: 89). I classified the verb *tapahtua*, ‘to happen,’ in Finnish as a primary A verb because this verb does not take a human argument as a subject.

³⁹ The so-called *coloration construction* (*koloratuurikonstruktio*) in Finnish is the other type of construction in which some primary A verb can have an infinitive argument. In this construction, the finite verb is a descriptive verb, and the infinitive is a superordinate of this descriptive verb. This construction is a kind of serial verb construction; it is not a verb getting a proposition argument (Pajunen 2001: 413). These constructions were not used by the informants.

than that of agent; an agent is active, intentional, and volitional, but an experiencer is a human being whose mental state is affected by perceiving, feeling, or knowing something. An experiencer may have more or fewer agent features and, consequently, more or fewer features of the semantic role of *patient* because the stimulus affecting the mental state also may have agent features (Siironen 2001: 30-32; look also at Pajunen 2001: 300).

Siironen (2001: 33-34) classified mental verbs, especially verbs of emotion in Finnish, using Croft's classification (1991: 212-225); the classification is based on argument structure and aspect. Mental verbs can be classified as one of four types: inchoative verbs, activity verbs, stative verbs, and mental causative verbs. In addition, cognitive verbs of Finnish can be presented following this classification.

1) *Inchoative verbs* are intransitive verbs expressing the beginning of a mental state. The subject of these verbs is an experiencer, and the stimulus is a reaction verb, meaning that the case governed by a verb. Such a verb is, for example, *suuttua*, 'to become angry,' or *rakastua*, 'to fall in love' (Siironen 2001: 34, 41). Siironen presented only emotion verbs belonging to this group; *tutustua*, 'to get to know,' is a cognition verb in this group; its stimulus is in the illative case. The stimulus argument of emotion verbs can be in different cases in Finnish; for example, the verb *rakastua* has the stimulus in the illative.

2) *Mental activity verbs* have only one obligatory argument, namely, a subject that is an experiencer. To this group belong emotion verbs like *iloita*, 'to be delighted,' that have an intentional and volitional subject argument and refer to an activity. These verbs can be used with the subject argument only (Siironen 2001: 33-34).

Cognitive verbs also can refer to mental activity. These verbs can refer to resultative or irresultative activity. In Finnish linguistics, the term *resultative* refers to a telic and completed event; *irresultative* refers to an atelic, unfinished, and progressive event (Hakulinen & al. 2004: 1431; Huumo 2005: 142, footnote 1). Resultative verbs take an accusative object or a restrictive object, which refers to a telic or a completed situation. Irresultative verbs take a partitive or an unrestrictive object, which refers to an atelic or a progressive situation; thus, the object case is a marker of aspect in Finnish (Hakulinen & al. 2004: 884; Huumo 2005: 114).

An example of an irresultative cognitive verb referring to mental activity is the verb *ajatella*, 'to think' (Siironen 2001: 33). The subject argument of this verb is intentional and volitional, and even though it has more features of an agent, it is still an experiencer because it refers to mental activity; the object argument of this verb is in the partitive case. Also, resultative cognitive verbs can refer to an activity. For example, the verbs *päätää*, 'to decide,' and *oppia*, 'to learn,' are resultative verbs in Finnish because they have an object argument in the accusative case. Pajunen classified *päätää* as a verb of cognition (2001: 429) but *oppia* as a speech act verb (2001: 355). I classified both verbs as verbs of cognition.

3) Both emotion verbs and cognition verbs can be *statives*; however, these verbs are different stative verbs because stative emotion verbs are irresultative verbs but stative cognition verbs are often so called quasi-resultative verbs (Leino 1991: 164-186).

The term quasi-resultative refers to verbs like resultative verbs that have a restrictive object, even though quasi-resultative verbs do not express a telic but an atelic aspect (Huumo 2005: 119-122).⁴⁰ So, stative emotion verbs take a partitive object, as in *Rakastan sinua*, ‘I love you,’ but stative cognitive verbs are quasi-resultative verbs and have a restricted object, as in *Muistan asian*, ‘I remember the subject.’ In addition, cognitive activity verbs like *oppia* or *päättää* take a restricted object, but these verbs are not quasi-resultative because they are not stative verbs.

4) *Mental causative verbs* are transitive verbs that have a stimulus as the subject argument and the object as experiencer. (Croft 2001: 213-214). Following are examples of mental causative verbs in Finnish:

- a) *Kalle pelästytti Maijan.* S+V+O Kalle frightened Maija.
- b) *Asia ajatteluttaa minua.* S +V+O The subject gets me thinking.
- c) *Asia vihastuttaa minua.* S+ V+O The subject makes me angry.
- d) *Minua ajatteluttaa asia..* O+V+S The subject gets me thinking.
- e) *Minua vihastuttaa asia.* O+V+S The subject makes me angry.

The stimulus of mental causative verb can be human, and the stimulus has many agent features and resembles a human intentional agent, as in example (a), but the stimulus of mental causative verbs can also be non-human, as in examples (b) and (c). Because mental causative verbs also can occur in constructions where the first argument is the object argument, as in examples (d) and (e), Siirainen concluded that mental causative verbs of emotion form two types of constructions in Finnish: transitive and mental causative. Mental causative constructions belong to special constructions in Finnish because they can start with an argument that is not in the nominative case (Siirainen 2001:47-57, Schot-Saikkku 1995, see chapter 6.2).

So, emotion verbs and cognition verbs have similarities and differences in Finnish. One difference, besides those already mentioned, is that emotion verbs more seldom have sentence arguments, whereas verbs of cognition can take all kinds of proposition arguments besides the nominal argument (Pajunen 2001: 312).

Verbs of cognition can be classified further on the basis of their semantics. Verbs of cognition can express thinking and state of knowledge; in Finnish, verbs such as *ajatella*, ‘to think’; *muistaa*, ‘to remember’; *tietää*, ‘to know’; and *ymmärtää*, ‘to understand,’ belong to these kinds of verbs. Cognition verbs can express desire. Finnish examples of these verbs include *toivoa*, ‘to hope,’ and *haluta*, ‘to want.’ Verb of cognition also are epistemic verbs that evaluate the truth of a proposition, for example, *luulla*, ‘to think, to suppose, to believe,’ and *uskoa*, ‘to believe.’ In addition, verbs expressing intention (*aikoa*, ‘to intend’) or ability (*jaksaa*, ‘to be able to,’ to ‘manage,’ and *osata*, ‘can and ‘to be able to’) are cognition verbs (Pajunen 1999: 65-68; 2001: 313-314).

⁴⁰ Besides cognitive verbs, there are also other quasi-resultative verbs. Huumo (2005) gave an overview of quasi-resultative verbs in Fennistic research.

Verbs of cognition and the modal verbs have a fluid boundary (Pajunen 2001: 319, see also Hakulinen-Karlsson 1979: 265). I will discuss the difference between cognitive verbs and modal verbs in Section 6.5.

6.4.1.1. Verbs of emotion used in oral tasks

Few emotion verbs were used in the oral tasks. These are presented in Table 6.17.

Table 6.17

Verbs of emotion used in oral tasks of bilinguals (BL) and classroom learners (L2)

BL:						
Anna	Kalle	Mari	Pekka		Tiina	
			ILAHTUA			Be delighted
					INNOSTUA	Become enthusiastic
					KIINNOSTAA	Intrest
	PITÄÄ		PITÄÄ			Like
	TYKÄTÄ		TYKÄTÄ		TYKÄTÄ	Like
SUUTTUA		SUUTTUA	SUUTTUA			Become angry
						6
L2:						
Berit	Elin	Rita	Siri		Vivi	
RAKASTAA			RAKASTAA			Love
						1

- 151) Ja tämä sanoo että ne on / se tyk... se pitää niistä ja //(Pekka BL, C1
And this say+SG3 that they be+SG3 / she like... she like+SG3 these+ELA
'And this one says that they are / she like... she likes them and....'
- 152) (Lueks sä norjaks?) Tiina: Luem minä joskus. / Joskus innostun ja toisinaan siis ei / ollenkaan kiinnosta. (Tiina BL, I)
Sometimes I become-enthusiastic+SG1 and sometimes actually no+SG3 at-all intrest+NEG
'(Do you read in Norwegian?) Tiina: Yes I read sometimes. Sometimes I become enthusiastic and some other time I am not interested at all actually.'
- 153) Minä rakkastan kallis kengät. (Berit L2, C1)
I love+SG1 expensive shoe+PL+ACC 'I love expensive shoes.'
- 154) Ehh ja minä rakastan /ehh nähdä / kuvat. Siri BL, C2
And I love+SG1 / see+INF1 picture+PL+ACC 'And I love to see the pictures.'

The verb *pitää* and *tykätä* are very common verbs of emotion in Finnish. Both these verbs mean 'to like,' but they are stylistically different because *tykätä* is more common in oral

Finnish. Pekka used both verbs, and he also seemed to be aware of the stylistic difference between these verbs, as the self-repair in example (151) demonstrates.

Pitää has several meanings (see Raukko 2002). This verb was most often used as a modal verb by the bilinguals (see Section 6.5). Anna also used it as a possession verb (example 129).

The verb *tykätä* and *pitää* are both states: They do not express change. These verbs do not take an object argument like other stative verbs of emotion, but rather an adverbial in the elative case, a verb reaction, even though these two verbs form a special subgroup in the group of verbs of emotions (Siironen 2001: 23, 44).

The verbs *ilahtua*, ‘to be delighted’; *suuttua*, ‘to become angry’; and *innostua*, ‘to become enthusiastic,’ express change in emotional state (Pajunen 2001: 310). These verbs are incoatives, that is, intransitive verbs that can have a subject as only an obligatory argument (Siironen, 2001: 34), as in example (152). The verb *kiinnostaa*, ‘to be interested,’ is a causative verb of emotion that has an obligatory object argument (Siironen 2001: 51). Because Tiina’s sentence was an answer, the object argument was omitted in example (152).

The only verb of emotion used by the classroom learners in the oral tasks was *rakastaa*. This verb in Finnish means ‘to love,’ but both Berit and Siri, the pupils who knew this verb, used it to mean ‘to like.’ *Rakastaa* is a stative verb, and its object argument is in the partitive case (Hakulinen & al 2004: 887). In example (153), the case of the object of this verb was the accusative plural, so the classroom learners also used a restrictive object with an irresultative verb. In the production of the classroom learners, the verb *rakastaa* also had a verb object, as in example (154). This construction is a transfer error from Norwegian because the Norwegian verb *elske*, ‘to love,’ can be used with an infinitive argument: *Jeg elsker å se på bilder*, ‘I love to look at the pictures.’⁴¹

6.4.1.2. Verbs of emotion used in essays

Only the classroom learners produced verbs of emotion in the essays. These are presented in Table 6.18.

Table 6.18

Verbs of emotion in essays of classroom learners (L2)

L2:					
Berit	Elin	Rita	Siri	Vivi	
PITÄÄ		PITÄÄ	PITÄÄ		Like
RAKASTAA					Love
		VIIHTYÄ			Feel comfortable 3

⁴¹ Constructions where *rakastaa* takes an infinitive object were sometimes used by the Finnish mother tongue speakers, who were influenced by the contact languages of English and Swedish (Kolehmainen 2003). Beside the example *rakastan nähdä* ‘I love to see’ Kolehmainen presented some other examples of constructions where the verbs of emotion were used with a verb argument.

- 155) Minä pidän kesä. (Rita L2, E1.)
I like+SG1 summer. ‘I like the summer.’
- 156) Minä pidän meenen kouluun. (Siri L”, E2.)
I like+SG1 go+SG1 school+ILL. ‘I like to go to school.’
- 157) Minä rakastan tämä koulu. (Berit L2, E2).
I love+SG1 this school ‘I love this school.’
- 158) Mona: Viihdytkö täällä on koulussa? (Rita L2, E2)
Mona: Enjoy+SG2+Q here be+SG3 school+INE
‘Mona: Do you enjoy yourself to be here at school?’

In the oral tasks, the classroom learners did not use the verb *pitää*, ‘to like,’ at all; in the written tasks, they had, besides the meaning ‘to like,’ the modal use of this verb (see Section 6.5.2). The verb *pitää* takes its nominal argument in the elative case when the verb means ‘to like’; however, the classroom learners used the nominative, as in example (155). *Pitää* also had a verb argument in the production of the classroom learners, violating the Finnish use of this verb, as example (156) demonstrates, though the verb argument used in example (156) was not an infinitive, but a personal form of the verb. Again, such use of *pitää* is a transfer from Norwegian because an infinitive argument is used with the Norwegian verb *å like* meaning *pitää*: *Jeg liker å gå til skolen*, ‘I like to go to school.’

The verb *rakastaa*, ‘to love,’ seemed to have an extended use, also in example (157), because it was used to mean ‘to like,’ not ‘to love.’ In this example, the object was in the basic form and did not follow Finnish construction, although Berit also produced the correct object of this verb in the expression *Rakastan sinua*, ‘I love you,’ a construction that seemed to demonstrate item-based learning (see Tomasello 2003: 117-122.)

Viihtyä means ‘to feel comfortable’ and ‘to feel at home’ (Flint 1980: 4). According to Flint (1980), *viihtyä* belongs to the verbs of possibility and sufficiency in Finnish. Many of the verbs that Flint presented as verbs of possibility and sufficiency belong to the primary B verbs, or secondary verbs, in the classification of Pajunen. The verb *viihtyä*, which alone forms a category of harmony in the classification of Flint, does not take a proposition or an infinitive argument in Finnish, but it does take an adverbial of locality or manner as an argument (Flint 1980: 111-112). The verb *viihtyä* can be used not only for human beings but also for plants. If *viihtyä* refers to a plant, it is a physiological verb: The focus is the right environment and nutrients that help the plant to thrive (Flint 1980: 112). Physiologic verbs focus on corporeal states and processes, whereas psychological verbs refer to mental states and processes (Pajunen 2001: 272-275).

I classified the verb *viihtyä* as an emotion verb because it refers to a mental state. In example (158), this verb was used by a verb argument, even though the verb was not in the infinitive, but a personal form, as in example (156). The model for this construction was the verb *trives*, ‘to feel comfortable,’ in Norwegian, which has an infinitive argument: *Trives du med å være*

på skolen? The classroom learners used a Norwegian construction of emotion verbs in Finnish, so the verbs *rakastaa*, *pita*, and *viihtyä* had a verb argument in their production.⁴²

6.4.1.3. Verbs of cognition used in oral tasks

Table 6.19 present the verbs of cognition used in the oral tasks.

Table 6.19

Verbs of cognition in oral tasks of bilinguals (BL) and classroom learners (L2)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
AIKOA				AIKOA	Intend
HALUTA	HALUTA	HALUTA	HALUTA	HALUTA	Want
	JAKSAA				Be able to, manage
	KOETTAA				Try
				KOKEILLA	Try
			LUULLA		Suppose
MUISTAA	MUISTAA	MUISTAA		MUISTAA	Remember
	OPPIA			OPPIA	Learn
OSATA		OSATA		OSATA	Can, be able to
TARVITA		TARVITA		TARVITA	Need
TIETÄÄ	TIETÄÄ	TIETÄÄ	TIETÄÄ	TIETÄÄ	Know
				TUNTEA	Know
				USKOA	Believe
				YMMÄRTÄÄ	Understand
	YRITTÄÄ				Try
					16
L2:					
Berit	Elin	Rita	Siri	Vivi	
HALUTA	HALUTA	HALUTA	HALUTA		Want
TARVITA					Need
TIETÄÄ		TIETÄÄ			Know
					3

⁴² The verb *viihtyä*, 'to feel comfortable,' can take an infinitive argument also in the production of Finnish speakers in few cases, as the following example from the Internet demonstrates: 'Kilon päästä täyskymppi saavutettu ja tahdon päästä tuonne noin 68, jolloin olisin sen painoinen kuin itse *viihdyn olla*.' karppaus.info/forum/viewtopic.php?t=6756&highlight=&sid=068e508a47f6620b95ed51cc21737b0b-79k.

- 159) No tiätkö missä Kuopio on? (Pekka BL, I)
Know+SG2+Q where Kuopio be+SG3? ‘Do you know where Kuopio is?’
- 160) Em mä jaksaa muistaa kaikkea. (Kalle BL, I)
No+SG1 I manage+NEG remember+INF1 everything+PAR
‘I don’t manage to remember everything.’
- 161) Koitan ainaki tulla paremmaks. (Kalle BL, I)
Try+SG1 anyway come+INF1 better+TRA ‘I try to be better anyway.’
- 162) johonkin kauppaan kokkeilemaan joitain saappaita tai jotaki semmosta (Tiina BL, C1)
Some+ILL+CLI shop+ILL try+INF3+ILL some+PL+PAR boot+PL+ACC or
some+PL+PAR such+PAR
‘(they go) to some shop to try some boots or something like that.’
- 163) Mutta ne osas. (Mari BL, I)
But they be-able+PAST+SG3 ‘But they were able to (speak Finnish.)’
- 164) En usko no saattaa olla ehkä. (Tiina BL, C2)
No+SG1 believe+NEG ‘I don’t believe. Maybe she is, perhaps.’
- 165) Minä haluan / uusi kengät. (Elin L2, C1)
I want+SG1 / new shoe+PL+ACC ‘I want (to get) new shoes.’
- 166) Eee/ ei / minä haluan / nukkua. (Siri L2, C1)
No / I want+SG1 / sleep+INF1 ‘No, I want to sleep.’
- 167) Oi jaa. Ymm. Liisa sanoo minä tarvitsee uudet kengät. (Berit L2, C1)
Liisa say+SG3 I need+SG3 new+PL+ACC shoe+PL+ACC
‘Oh, yes. Liisa says I need new shoes.’

The verbs *tietää*, ‘to know’; *muistaa*, ‘to remember’; *ymmärtää*, ‘to understand’; and *tuntea*, ‘to know,’ express state of knowledge. *Tietää* is also one of the nuclear verbs (see Section 4.3.3); all the bilingual informants used this verb in the orals, although not as frequently as they used another nuclear verb, *haluta*, ‘to want.’ *Tietää* was most often used in the stereotypical reply: *En tiedä*, ‘I don’t know.’ This was the way that all the informants used this verb, with the one exception being example (159), where it was used in a question. The verb *tietää* also was used with a sentence argument in the production of the bilinguals.

The verb *muistaa* was used only in a stereotypical reply in the interview: *En muista*, ‘I don’t remember,’ as in example (160). The verb *tuntea* also was used only in a negative form: *En tunne*, ‘I don’t know.’ Because these verbs often were used in stereotypic answers, there were few object arguments used with these verbs; the only exception was example (160), where the verb *muistaa*, ‘to remember,’ took an object argument. Because this sentence was negative, the object was in the partitive case.

Verbs expressing intention in the oral tasks were *aikoa*, ‘to intend’; *yrittää*, ‘to try’; *kokeilla*, ‘to try’; and *koettaa*, ‘to try.’ The verbs *aikoa* and *koettaa* take an infinitive object, as in example (161). The verb *kokeilla*, ‘to try,’ is irresultative; it refers to an atelic situation and has a partitive object (example 162).

The verbs *osata*, ‘to be able to, can,’ and *jaksaa*, ‘to be able to, to manage,’ express ability. In example (160), the verb *jaksaa* took an infinitive object argument; example (163) was an

answer, so the object argument of the verb *osata*, ‘to be able to,’ was omitted. The verbs *uskoa*, ‘to believe,’ and *luulla*, ‘to believe,’ are epistemic verbs used to evaluate the truth of the proposition. Both verbs were used in answers, as in example (164).

The classroom learners used only three cognitive verbs in the oral tasks. The verb *tietää* was used only in a negative reply: *En tiedä.* So, this verb occurred only in formulaic use (see Tomasello 2003: 305). The verb *haluta* was the most frequently used cognitive verb in the group of classroom learners, and it was used either with an NP object argument, as in example (165), or with a verb argument, as in example (166). The classroom learners used the verb *haluta* in a more diverse way compared to the verb *tietää*. Still, even the use of this verb seemed to demonstrate item-based learning because the same verb was repeated many times without much variation (see Tomasello 2003: 309). For example, Rita used *haluta* eight times in the 1st person, followed by an object, either a noun or a verb, and only once in another person; only once was an adverbial of time was connected to the verb argument. *Haluta* was used more frequently in constructions with a verb argument than any other verb, and it was the only cognitive verb used with a verb argument in the production of the classroom learners.

A verb of desire in the oral tasks was the verb *tarvita*, ‘to need.’ *Tarvita* also can be used as a modal verb in Finnish; in modal use, the verb is impersonal, the verb form is always the 3rd-person singular, often a negative form, the subject is in the genitive case; and the verb does not take an NP object, but a infinitive object. This is the case in the Finnish standard language (Kangasniemi 1992: 353). The meaning of the verb as a modal verb, however, is not that different from its meaning as a lexical verb (Laitinen 1992: 51). In the orals, the informants used this verb only with an NP object; the subject was not in the genitive, but the forms of the verb *tarvita* showed agreement in person with the grammatical subject; this kind of use is not modal (Kiuru 1977: 210). In example (167), not all of these conditions were fulfilled because there was no agreement between the verb and the subject person, but the NP object showed that this was not an example of *tarvita* as a modal verb. I classified *tarvita* as a cognitive verb when it was not used impersonal, but was inflected in person. The verb *tarvita* was used by only one of the classroom learners, but she used it many times.

6.4.1.4. Verbs of cognition used in essays

Verbs of cognition used in the essays are presented in Table 6.20. There were fewer cognition verbs in the essays of the bilinguals than in the oral tasks, but the classroom learners had more verbs of cognition in the essays than in the oral tasks. Many of the verbs in the essays were the same as those used in the oral tasks.

Table 6.20

Verbs of cognition in essays of bilinguals (BL) and classroom learners (L2)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
	AJATELLA				Think
HALUTA					Want
	KEHDATA				Care to, bother to
LUULLA	LUULLA		LUULLA		Think, suppose
		MIETTIÄ			Think, ponder
	PÄÄTTÄÄ				Decide
	OPPIA	OPPIA			Learn
				TAHTOA	Want
			TARVITA	TARVITA	Need
	TESTATA				Test
	TIETÄÄ	TIETÄÄ			Know
				TOIVOA	Hope
	UNOHTAA				Forget
				USKOA	Believe
					14
L2:					
Berit	Elin	Rita	Siri	Vivi	
HALUTA	HALUTA	HALUTA	HALUTA		Want
			OPPIA		Learn
	TARKOITTAA				Mean
			TARVITA		Need
			TIETÄÄ		Know
		TOIVOA	TOIVOA	TOIVOA	Hope
		TUTUSTUA			Get to know
			USKOA		Believe
					8

- 168) Tulevaisuuden koulussa käytetään varmasti vain tietokoneita ja ei tarvita opettajaa. (Pekka BL, E2.)
 Future+GEN school+INE use+PASS certainly only computer+PL+PAR and no+SG3 need+PASS+NEG teacher+PAR
 ‘Only the computers are used certainly in the school in the future, and not any teacher is needed.’
- 169) “No, mitä opin tänään?” minä kusuin. “Opit Amerikan kaupuingista: “Mitä jos en kehtaa?” sanoin nopeasti. (Kalle BL, E2)
 What learn+SG1 today? I ask+PAST+SG1. Learn+PAST+SG2 America+GEN city+ELA.
 What if no+SG1 bother+NEG, say+PAST+SG1 quickly.

'No, what I am going to learn today?' I asked. You learn about the city(s) in America.
'What if I don't bother?' I said quickly.'

- 170) Minä luulen että se uusi koulu on hyvä koulu. (Anna BL, E2.)
I think+SG1 that the new school be+SG3 good school.
'I think that the new school is a good school.'
- 171) Kesäloma oli alkanut ja minä ja Randi mietimme mitä me teeme. (Mari BL, E1.)
Summer-holiday be+PAST+SG3 begin+PCP and I and Randi think+PAST+PL1
what+PAR we do+PL1.
'The summer holiday had started, and I and Randi thought what we will do.'
- 172) Päätimme mennä saunaan siksi, että oli kylmää. (Kalle BL, E1.)
Decide+PAST+PL1 go+INF1 sauna+ILL therefore that be+PAST+SG3 cold+PAR 'We
decided to go to the sauna because it was cold.'
- 173) Ajoime ensin järville ja testaimme huippunopeus. (Kalle BL, E1)
Drive+PAST+PL1 first lake+PL+ALL and test+PAST+PL1 maximum speed.
'We drove first to the lake and tested the maximum speed.'
- 174) Mina haluan minun lapse on Norjassa koulun, koska norjan koulun on hyvä.
I want+SG1 my child be+SG3 Norwegian+INE school+GEN
'I want my child to go to the Norwegian school because the Norwegian school is good.'
- 175) He eivät lukee kirja; he luevät tietokone, ja he eivät tarvitaa opetajat. (Siri L2, E2.)
They no+PL3 read+SG3 book, they read+PL3 computer, and they no+PL3 need+3SG
teacher+PL+ACC
'They don't read a book, they read the computer, and they don't need teachers.'
- 176) Minä toivon että tulevaisuuden koulun on kiva. (Vivi L2, E2).
I hope+SG1 that future+GEN school+GEN be+SG3 nice.
'I hope that the school in future is nice.'
- 177) Minä uskon että Tulevaisuudessa koulussa he eivät kirjekynässä, he kirje tietokonessa.
(Siri L2, E2.)
I believe+SG1 that future+INE school+INE they no+PL3 letterpencil+INE they letter
computer+INE
'I believe that in the school in the future they don't write by hand, they write with the
computer.'
- 178) Mikä tarkoittaa sinä. (Elin L2, E1.)
What mean+SG3 you 'What do you mean?'

The verb of desire, *haluta*, 'to want,' was not as widely used in the essays as in the oral tasks by the bilingual informants; only one of them used this verb in the essays. Pekka and Tiina used another verb of desire, *tarvita*, 'to need,' in essay 2. In the oral tasks, this verb was used only as a cognitive verb to express desire; in the essays, cognitive and modal use was found (look at Section 6.5.2). In example (168), the verb *tarvita* was used negatively, but it was inflected in the passive, although it was not a question of modal use, because in modal use, the verb is inflected impersonally in the 3rd person.

Other verbs of desire used in the essays included *tahtoa*, 'to want,' and *toivoa*, 'to hope.' The verb *toivoa* does not take an infinitive argument, but only a sentence argument⁴³ or an NP argument (Pajunen 2001: 427); the bilinguals used only a sentence argument with *toivoa*. The

⁴³ *Toivoa* can also take a participle construction argument.

verb *tahtoa*, ‘to want,’ can take either an infinitive argument or a subordinate sentence argument, but in the production of the bilinguals, this verb took only infinitive arguments. The verb *kehdata* is also a verb of desire when it is used to mean ‘to bother to do something.’ This verb is used differently in eastern and western Finland. In western dialects, this verb means ‘to shame,’ and it is a verb of emotion. Kalle used this verb as it is used in the eastern dialects of Finnish, as in example (169).

The verbs *luulla*, ‘to think, to suppose,’ and the verb *uskoa*, ‘to believe,’ are epistemic verbs, expressing the speaker’s interpretation of the truth of the proposition. The verb *luulla* got a sentence argument, as in example (170); in addition, *uskoa* was used with a sentence argument by the bilinguals.

The verbs *tietää*, ‘to know,’ and *unohtaa*, ‘to forget,’ express state of knowledge. *Tietää* was used less often in the essays than in the oral tasks by both informant groups. Both verbs can take many types of arguments; a sentence argument was used with the verb *tietää* once.

Two verbs that referred to the act of thinking were used in the essays; *ajatella*, ‘to think,’ and *mieltiä*, ‘to think, to ponder.’ *Ajatella* is the most general verb referring to the act of thinking in Finnish; *mieltiä* focuses more on the mode of thinking (Pajunen 2001: 314). The verb *mieltiä* had a sentence argument, as in example (171), and the verb *ajatella* was used with a sentence argument.

Päittää, ‘to decide,’ can take different types of arguments (see Pajunen 2001: 428). In example (172), this verb took an infinitive argument. The verb *päittää* is a verb of intention (Leino 1986: 111; Pajunen 2001: 316). The verb *testata*, ‘to test,’ is a verb of intention, and it can refer to an action. In example (173), this verb was used with an object argument; however, the object was incorrectly used in its basic form. I also classified *oppia*, ‘to learn,’ as a verb of cognition because it refers to a mental activity. This verb also can take a sentence argument as well as an NP argument (Pajunen 2001: 427), but only an NP argument was used with this verb in the bilingual group (example 169).

In the group of classroom learners, the verb *haluta* seemed to be important in both the oral and the written tasks. In the examples of the classroom informants, *haluta* took a nominal argument and a verb argument. In example (174), this verb was eventually used with a sentence argument, but in this example, the construction was difficult to interpret. In the group of classroom learners, only one informant used the verb of desire, *tarvita*, ‘to need’ (example 175); *tarvita* had an NP object argument in this example.

The classroom learners used the verb *toivoa*, ‘to hope,’ in the essays. It can have a nominal argument as well as a subordinate sentence argument, as in example (176). One of the classroom learners used the verb *uskoa* in the essays. This verb was used with a subordinate sentence argument, as in example (177). Only one of the classroom learners used the verb *tietää* in the essays in a stereotypic negative reply: *En tiedä*, ‘I don’t know.’ In addition, the verb *oppia* was used only once in this informant group. The verb *tarkoittaa*, ‘to mean,’ is a verb of intention (Pajunen 2001: 314). This was the only verb of intention used by the classroom learners (example 178). The bilinguals did not use this verb of intention at all. The

verb *tutustua*, ‘to get to know,’ is an inchoative intransitive verb expressing that a mental state begins. This verb has only an adverbial argument, not an object argument. This verb was used in an idiom: *Hauska tutustua*, ‘Nice to meet you.’

The classroom learners used sentence arguments and verb arguments with the cognitive verbs in the essays, but only verb arguments were used in the oral tasks. However, the number of verbs used with the sentence arguments was lower than the number of verbs that the bilinguals used with a sentence argument.

6.4.2. Verbs of perception

Verbs of perception that express seeing, hearing, smelling, feeling, and tasting can be divided into classes according to these five senses. The verbs that express seeing and hearing are the most central because much more vocabulary is connected to these two senses than to the others. According to Viberg, the verb expressing *seeing* is the most central of them all (1983: 136; 1993: 349; Pajunen 2001: 319).

6.4.2.1. Verbs of perception used in oral tasks

Table 6.21 present the verbs of perception used in the oral tasks.

Table 6.21

Verbs of perception in oral tasks of bilinguals (BL) and classroom learners (L2)

BL:						
Anna	Kalle	Mari	Pekka	Tiina		
				HUOMATA	Notice	
KATSOA	KATSOA			KATSOA	Look at	
				KUULUA	Be heard	
				KUUNNELLA	Listen	
			NÄHDÄ	NÄHDÄ	See	
			NÄKYÄ	NÄKYÄ	Be seen	
		NÄYTTÄÄ			Look like	7
L2:						
Berit	Elin	Rita	Siri	Vivi		
KATSOA	KATSOA	KATSOA	KATSOA	KATSOA	Look at, watch	
			NÄHDÄ	NÄHDÄ	See	2

- 179) Katon minä ainaki joitain suomalaisia sarjoja. (Tiina BL, I)
 Look+SG1 I anyway some+PL+PAR Finnish+PL+PAR serie+PL+PAR
 ‘I look at some Finnish TV-series in any case.’

- 180) Se näyttää vähän surulliselta. (Mari BL, C2.)
She look+SG3 a-little sad+ABL ‘She looks a littlebit sad.’
- 181) No meillä näkky / kakkonen ja MTV 3. (Pekka BL, I)
We+ADE see+PL3 / two and MTV3. ‘We can see TV 2 and MTV 3.’
- 182) Sit mie oon huomannu että oppii helpommiten / ku kattoo englantilaisia tota / sarjoja ja eikä kato tekstiä vaan kuuntelee vain että mitä ne sanoo. (Tiina BL, I)
Then I be+SG1 notice+PCP that learn+SG3 more-easily / when look+SG3 english+PL+PAR that+PAR / serie+PL+PAR and no+SG3+CLI look+NEG text+PAR but listen+SG3 only that what+PAR they say+SG3
‘Then I have noticed that you learn more easily if you look at the English TV series and you don’t look at the text but you just listen to what they are saying.’
- 183) Isä / luen lehtiä ja sinä / eee // ym... sinä ... se på TV kattoo / tele /visiota. (Vivi, L2 C2)
Father / read+SG1 magazine+PL+PAR and you / you look at TV (Norw) look at / tele / vision+PAR
‘The father / I read the magazine and you look at TV (Norw). look at TV.’
- 184) (Mitä lapsi tekee?) Hän näät avis... / han ser i avisen. (Vivi L2, C2, näät = näkee)
She see+SG2 paper (Norw.)
‘(What is the child doing?) She looks paper she looks at the paper (Norw.)’

In all of the oral tasks, the informants used many different verbs of seeing, but only two verbs of hearing were used by one of the informants in the interview. So, the hierarchy of perception verbs presented by Viberg (1983) was seen in this material.

Nähdä is a stative verb denoting the pure act of perception; *katsoa*, ‘to look at, to watch’ is an action verb (Pajunen 2001: 322). Like ‘to see’ and ‘to look’ in English, *nähdä*, ‘to see,’ can refer to an involuntary act of perception; *katsoa* refers to an intentional action, where the perceiver directs his attention in order to connect with some impression (see also Dixon 1991: 125-126). The verb *katsoa* referred to the comic strip figures looking at a magazine in the comic strip task, or it referred to watching television, as in examples (179) and (183). In addition to the act of seeing, *nähdä*, ‘to see,’ was also used in the idiom *nähdään*, ‘saying goodbye to someone,’ in the production of the bilinguals.

The verb *näyttää*, ‘to look like,’ is a causative derivation of *nähdä*. In example (180), the causative *näyttää* was used as a verb of impression (look at Hakulinen & al. 2004: 483). This verb may be used as an epistemic verb with a participle construction (Ikola 1974), but in example (180), the verb still referred to the sense of seeing. The verb *näkyä*, ‘to be seen,’ is a passive derivative of the verb *nähdä*, ‘to see.’ In example (181), *näkyä* referred to Finnish broadcasting that can be seen in Norway.

The same derivative affix as in the verb *näkyä* was used in the verb *kuulua*, ‘to be heard’; this verb is a passive derivative of the verb of hearing, *kuulla*, ‘to hear’ (Kulonen-Korhonen 1985: 299). *Kuunnella*, ‘to listen,’ also is a derivation of the basic verb of hearing, *kuulla*, ‘to hear.’ The derivation is transitive, like the underived verb *kuulla*. The meaning of the verb *kuunnella*, ‘to listen,’ is the intentional act of hearing, and similar to the verb *katsoa*, ‘to watch, to look,’ it is meant to direct one’s attention to something. The verbs *kuulua*, *kuunnella*, and *näkyä* were used to refer to Finnish broadcasting. Tiina used the verb

kuunnella, ‘to listen,’ when she talked about learning English from television (example 182); she actively listened to the spoken language and did not read the Norwegian text to learn more English. I also classified the verb *huomata*, ‘to notice,’ as a verb of perception because this verb refers to activities where the use of the senses is in focus (example 182). The verb *huomata* was used with a sentence argument in this example. The verb *huomata* could also be classified as a verb of cognition.

Especially among the classroom learners, the verb *katsoa*, ‘to look at,’ was used more often than the other verb of seeing, *nähdä*, ‘to see,’ in the orals. The classroom learners used this verb to refer to the comic strip figures looking at the magazine, or they used it to refer to looking at the TV. The verb *katsoa* was the only verb besides the verb *olla* that was used by all the classroom learners in the orals.

In Norwegian, the verb *se*, ‘to see,’ profiles seeing; the same verb used with the preposition *på*, ‘at,’ profiles looking. The classroom learners sometimes had problems identifying the difference between these two verbs profiling the intentional and the unintentional act of seeing in Finnish, as example (184) demonstrates. The intentional verb of seeing, *katsoa*, would have been a better choice in this example. Because only one verb was used in Norwegian to profile these different meanings, this may have been a transfer error.

Katsoa, ‘to look,’ is an irresulative verb that refers to an atelic situation, and its object argument is in the partitive case, as in example (183). The utterance *katsoa televisiota*, ‘to look at TV,’ seemed to be learned as a phrase (see Tomasello 2003: 305) because the informant used Norwegian to find the corresponding utterance in Finnish.

6.4.2.2. Verbs of perception used in essays

The perception verbs in the essays are presented in Table 6.22.

Table 6.22

Verbs of perception in essays of bilinguals (BL) and classroom learners (L2)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
	KATSOA		KATSOA		Look at
				KOKEA	Experience
	KUULLA				Hear
				KUUNNELLA	Listen
	NÄHDÄ			NÄHDÄ	See

L2:

Berit	Elin	Rita	Siri	Vivi		
				HAISTA	Smell	
KATSOA	KATSOA	KATSOA		KATSOA	Look	
KUULLA		KUULLA			Hear	
			NÄYTTÄÄ		See	4
			Pro			
			NÄHDÄ			

- 185) Sitten ei tarvitse kuunnella kiukkusia opettajia. (Tiina, E2).
Then no+SG3 need+NEG listen+INF1 angry+PL+PAR teacher+PL+PAR
'Then one needs not to listen to angry teachers.'
- 186) Päivän jonka tahdon kokea on että minusta tulisi laulaja. (Tiina, E1.)
Day+ACC which+ACC want+SG1 experience+INF1 be+SG3 that I+ELA
become+CON+SG3 singer
'The day, which I want to experience, is that I could become a singer.'
- 187) Opettaja istuvat nojatuoli ja katsoo ilmaa. (Elin, E2.)
Thacher sit+PL3 leaning-chair and look+PL3 air+PAR
'The teacher sits in the leaning chair and looks at the air.'
- 188) Minä katson monta eläintä. (Vivi, E1).
I look+SG1 many+PAR animal+PAR 'I see many animals.'
- 189) Katso, Siri ratsastaa, Elin sanoo. (Berit, E 1).
Look+IMP.SG2 Siri ride+SG3, Elin say+SG3
Look, Siri rides, Elin says.
- 190) Kun minä kävelen minulle huonelle minä näyttää yksi mahtailija poika joka seisoo ovissa.
(Siri, E1.)
When I walk+SG1 my+ALL room+ALL I show+SG3 one boastful boy who stand+SG3
door+PL+INE
'When I walk to my room, I see one boastful boy who stands at the door.'
- 191) Me kuullamme musiikki ja se on hyvä. (Rita, E1).
We hear+INF1+PL1 music and it be+SG3 good
'We listen to the music and it is good.'

Many of the perception verbs that the informants used in the written tasks were the same verbs as in the oral tasks, but there were some other contexts of use in the essays compared to the orals. For example, the verb *katsoa* was used when the writer referred to the father looking at a snow scooter, and the verb *nähdä* was used to refer to persons who saw the writer in a cultural arrangement for the youth. In example (46), the verb *nähdä*, 'to see,' was used with a sentence argument.

In example (185), the verb *kuunnella*, which refers to the intentional act of hearing, was used in the production of the bilinguals. The verb *kokea*, 'to experience,' also was classified as a verb of perception. This verb can take both a nominal argument and a sentence argument (see Pajunen 2001: 312). In example (186), the verb *kokea* had a nominal argument, the relative pronoun. This example seemed to be a contaminant of two sentences, namely, *Tahdon kokea*

päivän, jolloin minusta tulee laulaja, ‘I want to experience the day, when I will become a singer,’ and *Tahdon kokea, että minusta tulee laulaja*, ‘I will experience to become a singer.’

The verb *katsoa*, ‘to look at, to watch’ seemed to be the most central perceptual verb for the classroom learners in the written tasks and in the orals. Similar to the orals, the different verbs profiling different acts of seeing seemed to cause the classroom learners some difficulty. In example (187), the verb *katsoa*, ‘to look at,’ was used correctly, but in example (188), the verb *nähdä*, ‘to see,’ ought to have been used instead of *katsoa*. The verb *näyttää*, ‘to look like, to seem,’ which is a causative derivation of the verb *nähdä*, was used instead of the verb *nähdä*, ‘to see,’ as in example (189). These verbs usually take NP arguments. In example (189), the verb *katsoa* was in the imperative mode, and it was followed by a sentence. *Katso*, ‘to look,’ was used as a kind of particle and did not take a sentence argument in this example (see Hakulinen & al.2004: 1562).

The classroom learners also had problems differentiating the verb of hearing, *kuulla*, from the verb of listening, *kuunnella*. In example (190), the verb *kuulla*, ‘to hear,’ was used instead of the verb *kuunnella*, ‘to listen,’ because the writer seemed to refer to an intended act of hearing. The bilinguals managed to identify this difference, as example (185) demonstrates. Besides the verbs that referred to seeing and hearing, the classroom learners also used the verb *haista*, ‘to smell,’ which referred to the act of smelling.

6.4.3. Speech act verbs

The speech act verbs refer to verbal communication. According to Dixon, the speech act verbs form a large group of verbs in many languages, thus reflecting the importance of communication in human society (1991: 140). Pajunen divided the speech act verbs into ordinary speech act verbs, that is, verbs that lexicalise the manner of speaking, and verbs that lexicalise metalinguistic actions (2001: 339-358).

The first group of speech act verbs, the ordinary speech act verbs, can be classified further semantically using Searle’s classification. Affirming verbs tell people how things are; they are used in reporting. These verbs are used to express either a true or an untrue proposition. Searle called these verbs assertives; for example, the verbs *sanoa*, ‘to say,’ and *kertoa*, ‘to tell,’ are affirming verbs. Searle called speech act verbs that evaluate and express attitudes and feelings expressives. Such verbs are *kiittää*, ‘to thank’; *moittia*, ‘to criticise’; *myöntää*, ‘to admit’; and *tunnustaa*, ‘to confess.’ Verbs that are used when we commit ourselves to doing things, like *luvata*, ‘to promise,’ were called commissives by Searle. Beside these three types of speech act verbs, there are two other classes in Searle’s classification, that is, directives and declarations, but these verbs belong to the verbs that lexicalise metalinguistic actions in Pajunen’s classification (Searle 1979: 12-20; Pajunen 2001: 340).

Speech act verbs that lexicalise the manner of speaking can describe how fast or how slowly a person is speaking, how loudly or how silently one is speaking, and so on. These kinds of verbs include *kuiskata*, ‘to whisper’; *huutaa*, ‘to shout’; and *änkyttää*, ‘to stutter.’ According

to Pajunen 2001: 339, 343, 345), these verbs are not always classified as speech act verbs; however, in Pajunen’s classification, they are.

The last category of speech act verbs, those lexicalising metalinguistic actions, includes verbs that refer to calling, writing, reading, and teaching, according to Pajunen. In addition, the verbs of asking, directing, and demanding, that is, verbs used to get other people to do things, lexicalise metalinguistic actions; Searle called these verbs directives. In addition, performatives, which Searle called declarations, refer to metalinguistic actions. These speech act verbs bring changes in the world, for example, *viikkiä*, ‘to marry,’ and *nimittää*, ‘to nominate’ (Searle 1979: 13-14, 16-20; Pajunen 2001: 352-353; look also at Cruse 2000: 342-343).

Typical of speech act verbs is that they have sentence arguments that express the content of communication. This content also may be expressed using an object argument or an adverbial in the elative case in Finnish. In addition, speech act verbs can have dative adverbial arguments that express the addressee of the message. The subject argument of a speech act verb is the sender of the message; the subject argument is different from the subject argument of other mental verbs because it is not an experiencer (Pajunen 2001: 340-341, Hakulinen & al. 2004: 478-480; 870) but an agent.

The verbs of writing and reading resemble the action verbs, especially the creation verbs (Pajunen 2002: 353-354). Still, these verbs can be classified as primary B verbs because they take sentence arguments, for example, *Matti kirjoittaa äidille, että hän tulee pian kotiin*, ‘Matti is writing to her mother that he will soon come home,’ and *Tyttö lukee sanomalehdestä, että konsertti on huomenna*, ‘The girl is reading in the newspaper that the concert is tomorrow.’ This is one of the basic differences between primary A verbs and primary B verbs, according to Pajunen (2001: 82-83).

6.4.3.1. Speech act verbs used in oral tasks

Table 6.23 presents the speech act verbs used in the oral tasks.

Table 6.23

Speech act verbs in oral tasks of bilinguals (BL) and classroom learners (L2)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
HUUTAA			HUUTAA		Shout
				HYVÄSTELLÄ	Say goodbye
		KERTOJA	KERTOJA	KERTOJA	Tell
				KESKUSTELLA	Discuss
KIRJOITAA			KIRJOITAA		Write
KYSYÄ		KYSYÄ	KYSYÄ	KYSYÄ	Ask

LUKEA	LUKEA	LUKEA	LUKEA	LUKEA	Read	
PUHUA	PUHUA	PUHUA		PUHUA	Talk	
SANOAA	SANOAA	SANOAA	SANOAA	SANOAA	Say	
				SELITTÄÄ	Explain	
			TUPISTA		Mumble	11
L2:						
Berit	Elin	Rita	Siri	Vivi		
JUTELLA					Chat	
LAULAA					Sing	
LUKEA		LUKEA	LUKEA	LUKEA	Read	
SANOAA	SANOAA	SANOAA		SANOAA	Say	4

- 192) Äiti sanoo isälle että sä itse luet sarjakuvia. (Mari BL, C2)
 Mother say+SG3 father+ALL that you self read+SG2 comic-strip+PL+PAR
 ‘The mother says to the father that you read comic strips yourself.’
- 193) Tyttö tietenkin selittää että aikoo lähteä kenkäkauppaa(n). (Tiina BL, C2.)
 Girl of-course explain+SG3 that aim+SG3 go+INF1 shoe-shop+ILL
 ‘The girl explains of course that she has plans to go to the shoe shop.’
- 194) Se on koulussa ja se puhuu yhen tytön kans. (Anna BL, C1)
 She be+SG3 school+INE and she speak+SG3 one+GEN girl with
 ‘She is at school and she speaks with one girl.’
- 195) Tyttö on vielä vähän suutuksissaaj ja tupisoo siellä / ei sano mitään oikeestaan. (Pekka, BL, C2.)
 Girl be+SG3 still a-little anger+PL+INE+POSS and mumble+SG3 there / no+SG3
 say+NEG anything actually.
 ‘The girl is still angry and mumbles there does not say anything actually.’
- 196) Luen se on semmosia / pitää muistaa semmosia semmosia... / semmosia hmmm verbejä ja kaikkee.... / Ja kirjoittaa niitä norjaksi ja enklanniksi. (Anna BL, I)
 Read+SG1 it be+SG3 such+PL+PAR / must+SG3 remember+INF1 such+PL+PAR
 such+PL+PAR... / such+PL+PAR verb+PL+PAR and everything+PAR.... /And
 write+INF1 they+PAR Norwegian+TRA and English+TRA
 ‘I read it is such / one must remember such such, such verbs and everything. And (one must) write them in Norwegian and in English.’
- 197) Äiti sanoo: Se on / hyvä kirja. (Vivi L2, C2)
 Mother say+SG3: It be+SG3 / good book. ‘The mother says: It is a good book.’
- 198) He / juttelevat. (Berit L2, C1)
 They / chat+PL3 ‘They chat.’
- 199) Minä vain luen / sarjakuvat. (Berit L2, C2)
 I only read+SG1 comic strip+PL+ACC. ‘I only read the comic strips.’

Most of the verbs used by the bilinguals in the oral tasks were ordinary speech act verbs: *hyvästellä*, ‘to say good buy’; *kertoa*, ‘to tell’; *keskustella*, ‘to tell’; *kysyä*, ‘to ask’; *sanoa*, ‘to say’; and *selittää*, ‘to explain.’ The most frequently used verb was *sanoa*, ‘to say,’ especially in the comics by both the informant groups, when this verb referred to the lines of the characters in the comics. The verb *sanoa* most often took a sentence argument in my material;

only in a few cases did it take an NP argument. Besides the object argument, whether it was a sentence or a noun, the verb *sanoa* could also take an adverbial argument expressing the person the lines were directed to, as in example (192). The bilinguals marked the subordination using the conjunction *että*, ‘that,’ as in example (192), though the lines of the comic strip figures were cited without using this conjunction in some cases in the production of the bilinguals.

In addition, the verbs *keskustella*, ‘to discuss’; *kysyä*, ‘to ask’; and *selittää*, ‘to explain,’ are ordinary speech act verbs (Pajunen 2001: 344). The verb *selittää* (example 193) focused on the manner of presenting the message, similar to the English verb ‘to explain’ (look at Dixon 1991:146). The verb *keskustella* focuses on the speech act as an interactive action (Pajunen 2001: 350), and its meaning is reciprocal (see also Dixon 1991: 145).

Beside the verb *sanoa*, other ordinary speech act verbs were used with a sentence argument in the material. The verbs *kertoa*, *keskustella*, *kysyä*, and *selittää*, also took a sentence argument in the oral use of the bilinguals.

The verbs *puhua*, ‘to speak’; *huutaa*, ‘to shout’; and *tupista*, ‘to mumble,’ refer to the manner of speaking. The verb *puhua*, ‘to speak,’ refers to the situation of vocal communication, not to the message (Pajunen 2001: 342-343). In the comic strips, this verb referred to the figures talking to each other (example 194). In the interview, this verb was used to refer to the speaking of Finnish and Norwegian with family members, relatives, friends, or others. The verbs *huutaa* and *tupista* referred to the force of voice used in the speech act, as in example (195).

The verbs *lukea*, ‘to read,’ and *kirjoittaa*, ‘to write,’ lexicalise metalinguistic actions (Pajunen 2001: 352-353). These verbs could also be classified as action verbs; however, both verbs can have a sentence argument. *Lukea*, ‘to read,’ can be seen as an extended kind of speech act activity. This verb was used in the comic strip 2, where it described a central activity of the comic strip figures or in the interview to refer to the free-time activities of the informants. The verb *lukea*, ‘to read,’ has a nominal object argument in most cases, or it is used without an overt object argument to refer to the activity of reading.

The verb *kirjoittaa*, ‘to write,’ is classified as a speech act verb. Dixon classified this verb as a primary A type verb; according to him, it is a subtype of the so-called affect verbs. These verbs are prototypical transitive verbs, and the subtype involves an agent that manipulates something to create something (Dixon 1991: 102, 110-111). Another possibility is to classify this verb as a speech act verb, as Pajunen did. She also mentioned the possibility that Dixon had suggested (Pajunen 2001: 353-354). I followed the classification of Pajunen. In example (197), the verb *kirjoittaa* had a nominal object argument, but this verb also can have a proposition argument, or it can be used without an object to refer to the activity of writing.

The verb *sanoa* was the most central speech act verb in the production of the classroom learners. Only Siri did not use *sanoa* at all in the orals. This verb did not seem to belong to her vocabulary because she asked me about this verb, although I had recently used this verb many times before her question. The verb *sanoa* was used with a sentence argument the most often,

but the classroom learners did not use the conjunction *että*, ‘that’ to mark the subordination (example 197). In addition, the bilinguals used expressions where the lines of the comic strip figures were presented without using *että*, but they varied between these alternatives; in the production of the classroom learners, there was no variation.

The verb *sanoa* is one of the first verbs used in complex sentences in child language, and children start to use sentence arguments in the similar way, without any conjunction to mark subordination between the clauses (Lieko 1992: 255, 262; Tomasello 2003: 252-253). The use of this verb with a sentence argument was natural in the comic strip task because the informants were asked to find the lines of the comic strip figures. This verb also was a frequent verb in the input of the classroom learners (Slotte 1987, 1991). In Finnish, the verb *sanoa* is used with a sentence argument most often (see Pajunen 2001: 369). Therefore, the use of the *sanoa* with sentence argument also demonstrated that frequency affects how the constructions of language are learned (see Tomasello 2003: 262.)

The verb *jutella*, ‘to chat,’ refers to an interactive reciprocal action, similar to the verb *keskustella*, ‘to discuss’ (Pajunen 2002: 350; see also Dixon 1991: 144). The verb *jutella* was used by one of the classroom learners, as in example (198).

The verb *laulaa*, ‘to sing,’ refers to the manner of vocal production (Pajunen 2002: 343). This verb was used only by the classroom learners. All of the classroom learners except Elin used the verb *lukea* in comic strip 2. In example (199), an object argument was used with the verb *lukea*.

6.4.3.2. Speech act verbs used in the essays

Table 6.24 presents the speech act verbs used in the essays.

Table 6.24

Speech act verbs in essays of bilinguals (B2) and the classroom learners (L2)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
	EHDOTTAA				Suggest
				HAASTATELLA	Interview
	HUUTAA				Shout
KIRJOITAA				KIRJOITTAA	Write
				KUVAILLA	Describe
	KYSYÄ	KYSYÄ		KYSYÄ	Ask
				LAULAA	Sing
OPETTAA				OPETTAA	Teach
	SANOA	SANOA	SANOA		Say
				SUOSTUA	Agree
	VALITTAA				Complain
	VASTATA				Answer

L2:

Berit	Elin	Rita	Siri	Vivi	
		ESITELLÄ			Present
	HUUTAA				Shout
			KIRJOITTA		Write
KUIISKATA					Whisper
			LAULAA	LAULAA	Sing
			LUKEA		Read
PUHUA		PUHUA			Speak, talk
SANOA					Say
	VASTATA				Answer

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- 200) Kysyin tietokoneelta mitä se ehdotti aamiaiseksi. (Kalle, E2.)
Ask+PAST+SG1 computer+ABL what+PAR it suggest+PAST+SG3 breakfast+TRA
'I asked the computer what it suggested as breakfast.'
- 201) Minä suostuin laulamaan. (Tiina, E1.)
I agree+PAST+SG1 sing+INF3+ILL 'I agreed to sing.'
- 202) Jotain oli väärin. Äiti ei tulut valittamaan kun volum-nappi oli väänetty yli puoleksi. (Kalle, E1).
Mother no+SG3 come+PCP complain+INF3+ILL 'Something was wrong. Mother didn't come to complain though the volume button was turned over the half.'
- 203) "Kalle, tule tänne vähäsen," isi husi. (Kalle, E1).
Kalle, come+IMP+SG2 here for-a-while father shout+PAST+SG3
'"Kalle, come here for a while," Dad shouted.'
- 204) Siellä opetetttan mattematikka, suomea, jumpaa, enklanttia. (Anna, E2).
There teach+PASS matematic+PAR, Finnish+PAR, gym+PAR, English+PAR
'Mathematics, Finnish, gym, and English are taught there.'
- 205) Omistajan vastan 20.000 markkaa. (Elin, E1.)
Owner+GEN answer+SG1 20.000 mark+PAR 'The owner answers 20.000 marks.'
- 206) Minä rakastan sinua, minä kuiskaan. (Berit, E1).
I love+SG1 you+PAR, I wisper+SG1 'I love you, I whisper.'
- 207) Minä huutan Äitin ja isään, kunnemme ostan Stjerna? (Elin, E1.)
I shout+SG1 mother+ILL and father+ILL, when-no+PL1 buy+SG1 Stjerna?
'I shout to the mother and father, why don't we buy Stjerna?'
- 208) Marion on koulussa yksi viikona ja nyt he puhuvat Mona. (Rita, E2.)
Marion be+SG3 school+INE one week+ESS and now they speak+PL3 Mona
'Marion is at school one week and now they talk to Mona.'

The most common speech act verb, the verb *sanoa*, 'to say,' was used by the bilinguals in the essays, but not as frequently as in the oral tasks, especially in the comic strips. In addition, the verb *kysyä*, 'to ask,' was used more frequently in the comic strips than in the essays. The following ordinary speech act verbs were used only in the essays: *haastatella*, 'to interview,'

denoted the act of questioning; *vastata*, ‘to answer,’ denoted the act of answering; and *kuvailta*, ‘to describe,’ describing how the message was presented. The ordinary speech act verbs *kysyä*, *sanoa*, and *vastata* were used with a sentence argument, as in example (200).

The verbs *ehdottaa*, ‘to suggest,’ and *suostua*, ‘to agree,’ belong to what Pajunen called verbs of agreement (*sopimusverbit*, 2004: 349); Searle called such verbs commissives (1979: 14). The speaker agrees about something that will happen in the future by using such verbs (examples 201 & 202). The verb *valittaa*, ‘to complain’ (example 203), belongs to the commenting speech act verbs (Pajunen: 2001: 347-348); according to Searle, such verbs are expressives (1979: 15-16).

Besides the ordinary speech act verbs, the bilinguals used verbs that describe the manner of speaking, namely, *huutaa*, ‘to cry’ (example 205), and *laulaa*, ‘to sing,’ in the essays (example 204).

Verbs of metalinguistic action such as *kirjoittaa*, ‘to write’; *lukea*, ‘to read’; and *opettaa*, ‘to teach,’ refer especially to actions that involve cognitive ability and speech act activities. The verb of teaching, *opettaa* (example 206), resembles the verbs that decode telling, according to Pajunen (2001: 299, 355).

The classroom learners had only three ordinary speech act verbs in their written production: *sanoa*, ‘to say’; *vastata*, ‘to answer’; and *esitellä*, ‘to present’ (example 209; look also at example 126). All of these verbs are affirmatives; the classroom learners, then, did not use any verbs belonging to the other groups of ordinary speech act verbs. Such verbs are not used in the textbooks of Slotte. These other verbs are more complex verbs semantically than the affirmatives because they encode more information (Pajunen 2001: 340). In addition, among the classroom learners, the most common speech act verb, the verb *sanoa*, was not used as often in the essays as it was in the orals.

The classroom learners used many speech act verbs lexicalising the manner of speaking in the essays. The verbs *huutaa*, ‘to cry’; *laulaa*, ‘to sing’; *kuiskata*, ‘to whisper’; and *puhua*, ‘to talk,’ lexicalised the manner of speaking (examples 206-208). A sentence argument was used with the verb *kuiskata* in example (206); *sanoa* was used with a sentence argument in the essays of the classroom learners. In contrast to the oral tasks, conjunctions were used between the clauses in the essays in some examples.

The verb *laulaa* can refer both to the human voice and to the singing of birds. In the latter case, the verb actually ought to be classified in the category of physiologic reaction. I also classified the verb *laulaa* as a speech act verb when it referred to the singing of birds. An addressee connected to speech act verbs ought to be in the allative case in Finnish, but the dative adverbial argument was in the illative case, as in example (207). In example (208), the word *Mona* could be either the topic of communication or an addressee, so either case, that is, the elative or the allative, should have been used in this example.

The verbs *lukea*, ‘to read,’ and *kirjoittaa*, ‘to write,’ referring to metalinguistic actions, were used by the classroom learners; however, these verbs were not very frequent in the essays.

Actually, in example (177), the noun *kirje*, ‘letter,’ was used as a verb, demonstrating that the distinction between word classes was not clear to the classroom learners.

6.5. Secondary verbs (Abstract verbs)

The difference between primary verbs and secondary verbs is that secondary verbs are used to modify a proposition, which is expressed by a primary verb. So, secondary verbs have no independent status, and they are used in combination with other verbs (Pajunen 2001: 52-53).

One central group of secondary verbs is the group of modal verbs. Modal verbs, however, do not form as clear a group of verbs in Finnish as in some other languages, for example, in English, on a formal basis (Kangasniemi 1992: 6). The definition of modal verbs in Finnish is based on semantics, and modality can be classified into three different kinds of modality: deontic, dynamic, and epistemic.⁴⁴

The deontic modality expresses permission and obligation, whereas the dynamic modality expresses possibility or necessity. The epistemic modality expresses the attitudes about the true value of the proposition (Kangasniemi 1992: 2-3). A volitive source of modality is characteristic of the deontic modality. The source of modality is a person or a collective norm; permissions, orders, or denials of this source are directed to the goal of modality, which is a morally responsible agent who either follows permissions, orders, and denials, or refuses to do so (Lyons 1984-1985: 823-824; Laitinen 1992: 175-185; Koskinen 1998: 31).

The source of the dynamic modality is causal, that is, the sources of modality are circumstances in the physical world, not human beings. These external forces cause a state of affairs to be possible or necessary. The source of dynamic modality also can be the internal characteristics of the goal of modality, that is, either the physical or the psychological qualities of the goal. These kinds of sources of modality either permit or force the goal of modality to act. There is no choice. Therefore, the dynamic modality is different from the deontic modality because in the latter modality, two persons are involved. The source of the modality gives orders to the goal of modality (Kangasniemi 1987: 141-143; 1992: 19-20; Laitinen 1992: 185-199; Koskinen 1998: 31).

⁴⁴ Modality has been one of the central interests among Finnish linguists during the last decades (Leino 1993: 289). Earlier definitions presented by classical Finnish grammarians like Siro (1951) and Penttilä (1957) were based on formal criteria, which were replaced by criteria based on semantics. Kangasniemi (1992) preset the classification of modal into dynamic, deontic, and epistemic modalities in his dissertation on modal expressions in Finnish. Laitinen supported the same classification in her analysis of the use of so-called necessary verbs in Finnish dialects, although she commented that this classification actually is too simplified to describe the real language use and its functions (1992: 174). This classification comes from modal logic. Although Finnish philosophers like von Wright and Hintikka started the analysis of deontic and epistemic logic, the analysis of modality based on semantics in the Finnish language started first after the influence from general linguistics, for example, Lyons (1977, reprinted in 1984-85), as Laitinen pointed out (1992: 152, footnote 1). According to Lyons, modality can be divided into just two different types of modality: deontic and epistemic. Others, like Palmer (1979), differentiated the three types of modality I have mentioned (see also at Laitinen 1992: 172, 185).

The epistemic modality concerns the reliability of the information expressed by the proposition. The speaker can present judgements based on inferences about the correctness of this information, which can be evaluated on the basis of perception and what others have reported (Laitinen 1992: 205-207; Kangasniemi 1992: 3-4).

These three semantic types of modality do not usually differ lexically in Finnish. However, the modal verbs *taistaa* and *saattaa* express epistemic modality in modern Finnish (Laitinen 1992: 161). Both of these verbs evolved from dynamic use to epistemic use in Finnish (Kangasniemi 1992:331, 335-336). This kind of development has been observed in other languages (Laitinen 1992: 160).

The modal verbs in Finnish cannot be classified using only formal criteria. I presented a semantic definition of modal verbs; according to this definition, the modals are verbs indicating possibility or necessity in the dynamic, deontic, and epistemic domains of modality (Kangasniemi 1992: 291). Nevertheless, verbs expressing necessity in Finnish form a group of verbs with special syntactic characteristics. The most central of the verbs that express necessity are called *necessive verbs*: *pitää*, ‘must’; *täytyy*, ‘must’; and *tarvitsee*, ‘to need’ (Laitinen 1992: 28). In modal usage, the subject of these verbs is in the genitive⁴⁵ case, and the modal verb, which is the grammatical predicate of the sentence, is impersonal, inflected in the 3rd-person singular (Kangasniemi 1992: 294). Even though other modal verbs, except the verbs of necessity, do not form a group of their own on a formal basis, Kangasniemi presented features that often occur with modal verbs in Finnish, for example, modal verbs often occur without an overt subject (1992: 294).

Kangasniemi (1992) presented 14 modal verbs in Finnish: *joutua*, *kyetä*, *mahtaa*, *pitää*, *pystyä*, *päästä*, *saada*, *saattaa*, *sopia*, *taistaa*, *tarvita*, *tulla*, *täytyä*, and *voida* (1992: 291). Both primary A and B verbs belong to these verbs (Pajunen 2001: 434). The most central of these verbs are *saada*, ‘may, be able to, must not’; *voida* ‘can, may’; *täytyä*, ‘must’; and *pitää*, ‘must’ (Hakulinen & Karlsson 1979: 232; Hakulinen & Sorjonen 1989: 74).

Täytyä, ‘must,’ and *pitää*, ‘must,’ are the two verbs most often used to express necessity; both of these verbs are used in modern Finnish. The verb *pitää* has other meanings besides the modal usage in Finnish. The modal verb *pitää* is dominant in the eastern dialect of Finnish, and it is also usual in Ostrobothnian dialects; *täytyä* is mostly a western variant (Laitinen 1992: 39). Both of these verbs are used in written Finnish.

The two central verbs of possibility in Finnish are *voida*, ‘can, may,’ and *saada*, ‘may, be able to.’ Besides a modal use, the last one also has a possessive meaning (chapter 5.3.4). The verb *voida* also has a nonmodal usage; used this way, the verb indicates the state of health or general conditions of life: *Miten voit?* ‘How are you?’ (Kangasniemi 1992: 317).

⁴⁵ Traditionally, the case for the subject in Finnish has been defined as nominative or partitive, and in traditional Finnish grammars, analyses the infinitive argument as the grammatical subject in the sentence with a *necessive verb*. According to Hakulinen & al., a subject argument can be in the genitive case in some constructions, for example, in *necessive sentences* (2004: 868).

Besides the modal verbs, other verbs belong to the secondary verbs. Pajunen’s reseach (2001) was on primary A and B verbs, not secondary verbs. However, she mentioned that modal verbs and aspectual verbs are secondary verbs in Finnish. Examples of aspectual verbs include *alkaa*, ‘to begin, to start’; *jatkaa*, ‘to continue’; and *ruveta*, ‘to begin, to start.’ Typical of these secondary verbs in Finnish is that they occur with an infinitive, which encodes the state of affairs (Pajunen 2001:52).

Still, the boundary between primary B verbs and secondary verbs is not always easy to determine because cognitive verbs in particular resemble modals. For example, a verb expressing desire, like *haluta*, ‘to want,’ can also have an infinitive argument, but it is still classified as a cognitive verb and belongs to the primary B verbs (Pajunen 2001: 68-69; footnote 24). Kangasniemi did not classify verbs like *haluta*, *toivoa* and *tahtoa* in Finnish that express desires, hopes, and wishes as modal verbs either, but he mentioned them among other modal expressions and called them volitives. The volitives differ from modal verbs because they cannot be placed in the dynamic, deontic, and epistemic sectors of modality (Kangasniemi 1992: 263, 269-275).

In my analysis, I will follow the classification done by Pajunen, that is, the verbs that belong to secondary verbs in Finnish are modal verbs and aspect verbs. These two groups of verbs take only infinitive arguments in Finnish (Pajunen 2001: 52, 318-319, 417); therefore, they differ from primary B verbs and especially cognitive verbs, which can have several kinds of proposition arguments (Pajunen 2001: 316). The difference between primary verbs and secondary verbs is not only a formal but also a semantic difference. The primary B verbs encode human mental activities and abilities; the secondary verbs do not necessarily demand a human argument (Pajunen 2001: 296, 299).

6.5.1. Modal verbs used in oral tasks

All the bilingual informants used modal verbs in the oral tasks. There is only one somewhat uncertain example of secondary verbs used in the production of the classroom learners.

Table 6.25

Modal verbs in oral tasks of bilinguals (BL) and classroom learners (L2)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
PITÄÄ	PITÄÄ	PITÄÄ	PITÄÄ	PITÄÄ	Must
SAADA	SAADA	SAADA	SAADA	SAADA	May, be able to, must (neg.)
				SAATTAA	May
VOIDA	VOIDA	VOIDA	(VOIDA)	VOIDA	Can
				TAITAA	May

L2:

Berit	Elin	Rita	Siri	Vivi		
	SAADA ?				May	1

- 209) Noo siellä äiti sanoo isille että sem pittää antaa takasin lehen / (Pekka BL, C2)
There mother say+SG3 father+ALL that he+GEN must+SG3 give+INF1 back magazine+ACC
'There the mother says to the father that he must give the magazine back.'
- 210) Ja sitte se äiti sanoo että / se pitää mennä nukkumaan (Anna BL, C1)
And then the mother say+SG3 that / she must go+INF sleep+INF3+ILL
'And then the mother says that she must go to sleep.'
- 211) Minä pitää mennä ostamaan kenkiä. (Anna BL, C1)
I must+SG3 go+INF1 buy+INF3+ILL shoe+PL+PAR 'I must go to buy shoes.'
- 212) Pitää lukee kirjaa. (Mari BL, C2)
Must+SG3 read+INF1 book+PAR 'You have to read the book.'
- 213) Ja isä sanoo että ei pie ostaa liian kalliita kenkiä (Pekka BL, C1)
And father say+SG3 that no+SG3 must+NEG buy+INF1 too expensive+PL+PAR shoe+PL+PAR 'And the father says that you must not buy too expensive shoes.'
- 214) Joskus pittää ostaa vähän kalliita kenkiä (Tiina BL, C1)
Sometimes must+SG3 buy+INF little expensive+PL+PAR shoe+PL+PAR
'Sometimes one must buy little expensive shoes.'
- 215) ... ja sitte se isä sanoo että se saa lukea sitä. (Anna BL, C2)
And then the father say+SG3 that she may+SG3 read+INF1 it+PAR
'And then the father says that she may read it.'
- 216) Nyt saat tehdä läksy(j)ä. Jaa. (Kalle BL, C2)
Now must+SG2 do+INF1 homework+PL+PAR.
'Now you must do the homework. Yes.'
- 217) Ja sitten isä ottaa lehen siltä ja sanoo että se ei saa lukkea semmosta. (Pekka BL, C2)
That she no+SG3 must+NEG read+INF1 such+PAR
'And then the father takes the magazine and says that she is not allowed to read such (magazine).'
- 218) Tätä sie voit saaha luvan lukea. / (Tiina BL, C2)
This+PAR you may+SG2 get+INF1 permission+ACC read+INF1
'This one you are allowed to read.'
- 219) Se tyttö sanoo että eiku se kysyy voiko se toinen tyttö tulla sen kotia (Anna BL, C1)
may+SG3+Q the other girl come+INF1 it+GEN home.
'The girl says that no she asks if the other girl may come home with her.'
- 220) Mä en tiää miten ne vois sanoa (Anna BL, C1)
I no+SG1 know+NEG how they can+CON+SG3 say+INF1
'I don't know how they could say.'
- 221) Sitte saatan siellä olla kaheksaan yheksään maihin asti. (Tiina BL, I)
Then may+SG1 there be+INF1 eight+ILL nine+ILL about until
'Then I may be there to about eight or nine o'clock.'
- 222) Äitiki taitaa olla vähä huonolla tuulella / (Tiina BL, C2)
Mother+CLI seem+SG3 be+INF1 bad+ADE temper+ADE
'And the mother seems to be on bad temper.'

- 223) (Mitä tyttö sanoo?) Elin: Tässä kuva // hyvä. (Jaa hyvä) Elin: ja ei saa sanoa.../// (Jaa. Tyttö sanoo että tämä on hyvä / kuvakirja). Elin: Ymm. (Elin, L2, C2)
 And no+SG3 must+NEG say+INF1
 ‘(What does the girl say?) Elin: Here picture good. (Yea good). Elin: and one must not say.... ///(Yes. The girl says that this is a good picture book). Elin: Ymm.’

Both comic strips in particular seemed to be the context where the modal verbs *pitää*, ‘must,’ and *saada*, ‘may, neg. must,’ were frequently used. I paid attention to how the modal verbs expressed deontic, dynamic, or epistemic modality when I presented the examples, but I will also pay attention to some of the formal characteristics of the modal constructions.

Pitää, ‘must,’ expressed deontic modality in examples (209) to (213). The modal verb often belonged to the lines of the characters in the comic strips, and the fight between two wills, the very heart of the deontic modality, was apparent between the characters in the comic strips. The sentences expressed necessity or obligation to do something in most cases, and the source of modality was often the parent figures in the comic strips. In sentence (209), the modal verb *pitää* ‘must,’ expressed refusal to do something; the more usual verb in this usage is the negative form of the verb *saada*. The source of modality can be a social norm or rule (Kangasniemi 1987: 142). Anna described her own behaviour when she prepared herself for a vocabulary test at school, because in such a test, the norm is to remember verbs and other words (look at example 197). Pekka described the pupils at school who had to sit in their places the whole day, following a norm of behaviour at school (look at example 68).

Example (214) shows the dynamic use of the necessitive verb *pitää*. In this sentence, the goal of modality was not under pressure from the source of modality to act in a special way; however, circumstances sometimes precipitate the necessity to buy expensive shoes; maybe there is nothing inexpensive to buy in the footwear shop. The sentence could be substituted with the sentence, *Joskus joutuu ostamaan kalliita kenkiä*, ‘Sometimes you can’t avoid buying expensive shoes.’

The subject argument of the verb *pitää* ‘must,’ is in the genitive case in a necessitative construction in Finnish (Hakulinen & Karlsson 1979: 172). Only Anna and Pekka produced necessitive sentences with an overt subject argument. In Pekka’s example, the subject argument was in the genitive case (example 209), but the subject argument was in the nominative case, as in examples (210) and (211) of Anna. Example (211), where the 1st-person pronominal subject was in the nominative case, but the necessitive verb was not in congruence with this subject, was an example similar to that found in Finnish dialects, in contact with Swedish (look at Laitinen 1992: 50). This suggests that the necessitative construction of Anna had features that were the result of the language contact situation. The subject argument of necessitative construction can be in the nominative in Finnish dialects, but not with a verb of motion, as in example (272, see Laitinen 1992:95). It is possible to explain the construction used by Anna to be the result of mixing two constructions in Finnish: the transitive construction (*Minä haluan mennä*, ‘I want to go,’ which is a general construction starting with a subject NP argument in the nominative, and a specific necessitative construction, *Minun pitää mennä*, ‘I must go,’ starting with the subject argument in the genitive. In addition, there

is no agreement between the subject and the verb, but the verb is always in 3rd-person singular. The necessitive construction (example 211) seemed to be a mixing of two constructions with conflicting properties; the result was a construction which was partly like the transitive construction (subject argument in nominative) and partly like the necessitive construction (verb in the 3rd-person singular, see Goldberg (1995: 97-98; Croft & Cruse 2004: 277.) The necessitive construction has a high token frequency because the verb *pita*, ‘must,’ is frequently used, especially in this construction, but the transitive construction has a high type frequency: There are many verbs that can be used in this construction. The high token frequency means that the linguistic element is resizable to change (see Croft & Cruse 2004: 308-313); therefore, the result of the conflict between these two constructions was a mixed construction, not a type where the subject argument and the verb are in agreement, as in transitive construction.

In examples (212) and (213), the necessary verb was used without an overt subject argument. It was possible, however, to interpret the subject from the context. The sentences beginning with the necessary verb *pitää*, ‘must,’ indicated that the goal of modality is definite (see Laitinen 1992: 110, 146, footnote 2). In these examples, the goal of modality was the child figure in comic strip 2, and the zero subject could have been interpreted as the pronoun *sinä*, ‘you,’ especially in example (212), where direct speech was used. In sentences (213) and (214), where the necessary sentence represented indirect speech in a subordinate sentence, the definite interpretation of the zero subject argument being the pronoun *sinä*, ‘you,’ was also possible, but there may have been other possibilities, for example, the pupils, everybody, and so on.

The affirmative form of the verb *saada* usually expresses permission in modal usage in Finnish; the negative form of this verb is used to express denial. The informants used *saada* only as a deontic modal, and the context of use was exclusively in comic strip 2. In example (215), *saada* expressed permission, but in example (216), permission to do homework could have been interpreted as a command. In example (217), *saada* was used negatively, meaning ‘must not,’ to express a command. In contrast to the verb *pitää*, which is used without an overt subject argument quite often, *saada* had a subject argument in all these examples.

Although *saada* is the most usual verb to express permission in the deontic sense, the verb *voida* can also express permission (see Kangasniemi 1992: 91-92), as was the case in example (218). The goal of the modality, the child figure in comic strip 2, was allowed to do something; the one who gave permission was one of the parent figures. So, *voida* was used to express the deontic modality in this example. In example (219), *voida* was used to express dynamic modality because the circumstances made it possible for the agent to visit. However, it also was possible to interpret this sentence to express the deontic modality if the friend had received permission from the parents to visit. In example (220), the informant speculated what one might say in situations the comic strips described. The verb *voida* also expressed the dynamic modality in this example because it was the situation that made the lines of the characters possible.

In examples (221) and (222), the verbs *saattaa* and *taitaa* were used. Both verbs expressed the epistemic modality, meaning that the speaker was uncertain about the truth of the proposition. Only one of the informants, Tiina, used these two modal verbs.

Example (223) was the only example in which one of the classroom learners used a modal verb in the oral tasks. This example was an uncertain one because it was a fragment; therefore, its context was unclear.

The modal verbs *pitää* ‘must’; *voida*, ‘can, may’; and *saada* ‘may, be able to,’ having deontic and dynamic meanings, were the modal verbs most often used by the bilinguals in the oral tasks. The verbs *pitää* and *saada* were used to express the deontic modality, especially in the comic strips. The deontic modality is connected to dialogic communication situations in which at least two persons are participating (Laitinen 1992: 178-179). In the comic strips, the fight between two wills was the fight between the figures in the comics. In this way, expressions of deontic modality occurred when the pupils referred to the lines of the comic strip figures. This again showed that the context of use decided which kind of meanings the informants would produce. Laitinen commented that the deontic modality in the dialect material, on which her research was based, occurs in narratives, where the interviewee refers to the lines of the person in a narrative (Laitinen 1992: 179). To create a dialogic kind of communication situation when collecting the research material is a challenge in linguistic research and even language teaching. The comic strip data were elicited data because they were collected through pictures. Dialogic communication occurs in natural data,⁴⁶ but because the informants produced interpersonal forms in the comic strip tasks, these tasks seemed to evoke dialogic communication, even if this communication was not connected to the speech situation (between the interviewee and the interviewer, which means my informants and me), but only to the dialogue created by the informant between the imaginary characters. In this way, the comic strips also represented secondhand material, as did the dialect interviews of Laitinen (see Laitinen 1992: 179).

6.5.2. Modal verbs used in essays

Table 6.26 shows the modal verbs used in the essays.

Table 6.26

Modal verbs in essays of bilinguals (BL) and classroom learners (L2)

BL:

Anna	Kalle	Mari	Pekka	Tiina	
				JOUTUA	Be compelled to
PITÄÄ		PITÄÄ	PITÄÄ	PITÄÄ	Must
				PÄÄSTÄ	Manage to get

⁴⁶ For terms elicited data and natural data, look at Ellis, R (1994: 669-673).

SAADA	SAADA	SAADA			May, must not	
			TARVITA	TARVITA	Need	
VOIDA		VOIDA			May	6
L2:						
Berit	Elin	Rita	Siri	Vivi		
		TÄYTYÄ			Must	
PITÄÄ					Must	
		SAADA			May	3

The following examples present the modal verbs used in the essays:

- 224) Huono puoli on että koulu on aika iso ja kun se on niin iso pitää kävellä aika pitkästi. Siksi kaikki pitää ottaa pyörä sisälle ja pyöräillä. (Anna BL, E2, *että* = *että*)
 Bad side be+SG3 that school be+SG3 quite big and because it be+SG3 so big must walk+INF1 quite long-way. Therefore all must take+INF cycle in+ALL and cycle+INF1.
 ‘One disadvantage is that the school is quite big and because it is so big one ought to walk a long way. Therefore everybody has to take a bike in and cycle.’
- 225) Minusta koululla on liian vähän rahaa, tulevaisuudessa pitäisi kaikkilla kouluilla olla tarpeeksi rahaa, että ne voisi mennä museohoiin useammin. (Mari BL, E2, *museohoiin* = *museoon* or *museoihin*.)
 I+ELA school+ADE be+SG3 too little money+PAR, future+INE must+CON+SG3 every+PL+ADE school+PL+ADE be+INF1 enough money+PAR that they can+CON+SG3 go+INF1 museum+ILL more-often.
 I think that the schools have too little money; all schools ought to have enough money in future, so that they could visit the museums more often.
- 226) Koulun pitäisi olla kuin paratiisi jossa on uima allas. (Tiina BL, E2.)
 School+GEN must+CON+SG3 be+INF1 like paradise that+INE be+SG3 swimming pool ‘The school ought to be like a paradise with a swimming pool.’
- 227) Koulussa voi ostaa ruoka. (Anna BL, E2.)
 School+INE can+SG3 buy+INF1 food. ‘It is possible to buy food at school.’
- 228) Sieltä saa ostaa voileipää, limsaa, hampurilaista, ranskalaisia ja pirtelöitä. (Anna, E2.)
 There can+SG3 buy+INF1 sandwich+PAR, soda+PAR, hamburger+PL+PAR chip+PL+PAR and milkshake+PL+PAR
 ‘One is able to buy sandwiches, soda, hamburgers, chips and milkshakes there.’
- 229) Minä jouduin harjoittelemaan paljon. (Tiina BL, E1.)
 I must+PAST+SG1 exercise+INF3+ILL much. ‘I had to do much exercise.’
- 230) Kun pääsin alas näyttämöltä niin siellä oli hirveästi uutistoimistoista ihmisiä. (Tiina BL, E1).
 When I manage-to-come+PAST+SG1 down scen+ABL ‘When I was able to get down from the scene, there were horribly many people from news agencies.’
- 231) Mutta se täytyy kesä! (Rita L2, E1.)
 But it must+INF1 summer! ‘However, it must (be) summer!’

The modal verb *pitää*, ‘must,’ occurred more often than other modal verbs in the essays by the bilinguals. In examples (224) to (225), *pitää* expressed dynamic modality. In example (224), the external circumstances made it necessary either to walk a long way or use a bicycle in the huge school building that Anna imagined to be in the future. Also, in sentences (225) and (226), the modal verb *pitää*, ‘must,’ was used in sentences that described the school of the future. In these sentences, the modal verb *pitää* was connected to an inference made by the writer. The inference caused the hypothetical circumstances that functioned as the source of the modality. All of these sentences are examples of the dynamic modality.

In examples (225) and (226), the modal verb *pitää* was inflected in the conditional mood. According to Hakulinen & Sorjonen (1989: 83), the difference between the modal verbs *täytyy*, ‘must,’ and *pitää*, ‘must,’ which often are described as synonyms in Finnish, is that the *pitää* occurs more often than *täytyy* in conditionals. In the conversation material, which Hakulinen & Sorjonen analysed, the conditional of the verb *pitää* is often connected to suggestions how to function in different concrete situation (in Finnish *toimintaehdotus*). According to the writers, this meaning almost seems to be a lexicalised use of the conditional of the verb *pitää*. In the bilinguals’ examples, *pitää* was used in the same way: The pupils actually suggested how the school of the future has to function to be better than the school of today.

In example (227), the modal verb *voida*, ‘can, be able to,’ expressed dynamic modality. In these examples from Anna, the verb *voida* was used in an impersonal⁴⁷ structure, but the zero person or the ‘missing person’⁴⁸ (see Vilkuna 1992: 166, Laitinen 1995: 339) could have been interpreted as ‘pupils in the school’ because the context in this essay was the school, but the zero person could also have been interpreted as the generic ‘you’ or ‘anybody.’ The referent of the zero person is always human (Laitinen 1995: 338). These kinds of impersonal or generic sentences with missing persons are, according to Vilkuna, one of the most characteristic ways in Finnish to express impersonality (1992: 166). The impersonal expressions often are found with modal verbs, especially verbs that express possibility or necessity (Hakulinen & Karlsson 1979: 254, Vilkuna 1992: 167-168, Laitinen 1995: 340). Anna’s Finnish language production had several features that could be explained by the language contact situation, but the zero person seemed to have a solid place in her production.

The verb *saada*, ‘can, be able to,’ was used to express dynamic modality, as in example (228). This sentence also was impersonal, and the subject was a zero person. As in Anna’s other examples, the missing subject argument in this sentence can have been interpreted in the sentence to be the pupils in the school in future, or perhaps ‘anybody.’ The classroom learners

⁴⁷ In the impersonal or generic use, the verb is inflected in 3rd-person singular, and the sentence does not have any overt subject (Hakulinen & Karlsson 1979: 253).

⁴⁸ The missing argument is quite often a subject, but other arguments can be missing as well (Vilkuna 1992: 166-175). Different terms have been used for these phenomena in Finnish grammar. Laitinen suggested the use of the term zero-person. According to her, the zero-person is a part of the person inflection system in Finnish (1995:339)

also used the verb *saada* as a modal verb: This verb was used in the phrase *saanko esitellä*, 'allow me to present' (look at example 264).

In example (229), the modal verb *joutua*, 'to be compelled to, has to, must' is used. Only one of the bilingual informants, Tiina, used this verb in essay 1. Her sentence referred to practising her singing. The external force that caused her to practise her singing was that she had been asked to take part in a performance in Oslo. The verb *joutua* has several meanings: 'to get into, to hasten, to be in time' (see Flint 1980: 4). According to Flint, the verb *joutua* has evolved from having a concrete meaning, 'being ready to be harvested,' to being a modal verb that is used with an infinitive. According to Flint, *joutua* today is most often used to mean 'has to, must.' The difference between *joutua* and the verbs *pitää*, 'must,' or *täytyä*, 'must,' is that *joutua* refers to external motivating factors only (Flint 1980: 75). Therefore, the source of the modality is the force outside the goal of modality, and the goal of the modality does not have any choice. This is the definition of the dynamic modality (see also Laitinen 1992: 142, footnote 1).

The verb *päästä* means 'to get into/out of, to manage to get into/out of something.' Flint mentioned this verb among the verbs of possibility and sufficiency (1980: 72-79). In Flint's semantic classification, this verb belongs to the verbs of space, although the space in her classification does not mean concrete space only. Another verb presented by Flint in this group is *joutua*. The verbs *päästä* and *joutua* may refer to concrete space, but these verbs focus on a situation from a different point of view. From the speakers' point of view, the verb *päästä* includes the presence of volition, in contrast to the verb *joutua*, which includes the absence of volition: *Pian pääsen kesälomalle*, 'Soon I'll get to go on summer vacation.' *Hän joutuu vielä vankilaan*, 'He will end up in prison (yet)' (Flint 1980: 73-74).

The verbs *päästä* and *joutua* are both mentioned among the modal verbs in Finnish (Kangasniemi 1992: 291). According to Flint, however, the verb *päästä* has not reached the same level of abstraction as the verb *joutua*. *Joutua* is more often used by an infinitive argument, and is thus a secondary verb; *päästä*, however, does not occur often with an infinitive argument (Flint 1980: 76).

In example (230), the verb *päästä* was used in a concrete way to refer to a motion of the narrative 'I' down from the scene. However, even in this kind of use, *päästä* means 'I was able to get down' or 'I managed to get down'; I classified these two verbs (*joutua*, *päästä*) as modal verbs.

The verb *tarvita*, 'to need,' also can be used with a modal meaning. The modal use of this verb can be found in examples (89) and (185), where the verb *tarvita* was used in an impersonal structure, that is, without an overt subject argument. However, it was possible to interpret the subject argument from the context to be the 1st-person plural in Pekka's sentence (89) and the pupils in Tiina's sentence (185).

All the most central modal verbs, that is, *pitää* 'must'; *voida*, 'can, may'; and *saada*, 'may, be able to, must not,' were used in the bilinguals' essays. Besides these verbs, some other modal

verbs were used in the essays that were not used in the oral tasks at all. The classroom learners used some modal verbs in the essays.

The classroom learners had quite a few examples of modal verbs in the essays. Berit used the modal verb *pitää*, 'must,' once in the essays (look at example 94). The verb *pitää* expressed the deontic modality in her sentence. The source of the modality was the teacher, and the goals of the modality were the schoolchildren. Again, the deontic modality was expressed in a sentence where the writer referred to the lines of an imaginary figure in the narrative, similar to the way the deontic use of modal verbs occurred in the comic strips.⁴⁹

The verb expressing necessity, *täytyä*, occurred only once in the material. The verb *täytyä*, 'must,' occurred alone, that is, without an infinitive, as in example (231). It is not possible to use a modal verb of necessity in Finnish this way because the infinitive is an obligatory argument. However, in Norwegian, the modal verb *skal*, 'must,' can sometimes be used without the infinitive argument. The verb *skal* can lose the infinitive if there is an adverbial expressing direction in the sentence⁵⁰ (Faarlund & Lie & Vannebo 1997: 527). This was, however, not the case in Rita's example, where the missing infinitive was not a motion verb, but the verb *olla*, 'to be.'

As seen in the examples, the modal verb *pitää*, 'must,' was used in a different way in the written tasks than in the oral tasks. In the oral tasks, the deontic modal dominated, but in the written tasks, *pitää* was used with a dynamic meaning, except in the only example by Berit. Even though the bilinguals used dialogue in the essays, they did not use expressions of deontic modality. They did not use expressions of epistemic modality in the essays, so the bilinguals used these two types of modal expressions only in the oral tasks.

6.5.3. Aspectual verbs used in oral tasks

Just a few aspectual verbs were used in the oral tasks. Only the bilinguals used the aspectual verbs in the oral tasks, similar to how they used the modal verbs.

Table 6.27

⁴⁹ In the second essay, *The School in Future*, the pupils could choose from different kinds of strategies to write about this essay. Some of them discussed the differences between school today and school in the future; some of them just described the school in the future; for example, they told what happens at school one day. The classroom learners Berit and Rita, who did not express their own opinions about school so much, chose the last kind of strategy. Elin and Vivi, who gave a description of the school in future, but who also to some degree discussed the good and bad sides at school today, chose a kind of mixing strategy. Also, Kalle has chosen the same kind of narrative strategy as Berit and Rita to write about the school in future.

⁵⁰ Interference with Norwegian may be seen in the use of the modal verb *galgat*, 'must,' Sami language, which can drop the infinitive argument if there is an adverbial expressing direction in a sentence (Koskinen 1998: 49). The same kind of interference in Western Finnish is seen as the result of contact with Swedish, though Laitinen pointed out that it is not always necessarily a language contact phenomenon (1992: 140). I have heard bilingual Finnish-Norwegian children drop the infinitive in the following sentence: *Minun pitää vessaan* 'I must (go) to toilet', which in Norwegian is 'Æ skal på do.'

Aspectual verbs in oral tasks of bilinguals (BL)

BL:

Anna	Kalle	Mari	Pekka	Tiina	
	ALKAA	ALKAA			Begin
				EHTIÄ	Have time
	KESTÄÄ				Last, take time
	RUUKATA			RUUKATA	Have a habit 4

- 232) se alkaa puol yheksältä (Kalle, I)
It begin+SG3 half nine+ABL 'It begins at half past eight.'
- 233) Oom minä joskus lukenu mutta em minä oikeastaan niin paljoa ehil lukemaan.(Tiina, I)
But no+SG1 I actually so much have-time+NEG read+INF3+ILL
'I have read sometimes but actually I don't have so much time for reading.'
- 234) kestää / kuus tuntia seittemän tuntia (Kalle, I)
Last+SG3 six hour+PAR seven hour+PAR 'It lasts / six hours seven hours.'
- 235) Äiti ruukaa sitä enimmäkseen kuunnella. (Tiina, I)
Mother use+SG3 it+PAR mostly listen+INF1 'The mother listens to it in most cases.'

Alkaa, 'to begin,' can take an infinitive argument, but it is not necessary. In example (232), no infinitive argument was used. Like *ehsiä*, this verb can have either an animate or an inanimate subject argument.

I classified the verbs *ehsiä*, 'to have time, to be on time, to get (somewhere) on time,' and *kestää*, 'to last, to take time,' as secondary verbs. Both verbs are aspectual verbs in that they express something about time. *Ehsia* could also be classified as a cognition verb because it expresses having time (Flint 1980: 59). However, this verb also can take an inanimate subject, so it has wider use than the primary B verbs do: *Juna ehti jo lähteä*, 'The train has already departed.' The verb *ehsiä* can have an infinitive argument only, either the 1st infinitive or the 3rd infinitive, and can be classified as a secondary verb (Pajunen 2001: 417). In example (233), this verb had an infinitive argument.

The verb *kestää*, 'to endure, to put up with, to last, to take time,' has several meanings. I classified the concrete meaning of this verb, where the verb expressed that the shoes will last a long time, as the primary verb (look at example 194). The verb also has other kinds of concrete usages. The next example came from Flint: *No, kyllä se silta kestää*, 'Well, that bridge will certainly hold up.' According to Flint, *kestää* also expresses tolerance and can refer both to mind and body. Her example was *Kestämmekö työttömyyden?* 'Will we be able to bear (survive) unemployment?' (Flint 1980: 100-101). In this example, the verb *kestää* functions as a cognitive verb. In cognitive usage, the verb can take an infinitive argument: *En kestä kuulla tätä enää*, 'I do not endure to listen to it anymore' (Pajunen 1999: 104). Actually, this verb in the concrete usage has an infinitive argument as well as a nominal argument: *Silta kestää kävellä / kävelyä*, 'The bridge will hold up walking.'

When this verb was used to express time, as in example (234), I classified it as a secondary verb. When the verb is expressing time, the generic use is common: *Sinne kestää kävellä viisi minuuttia*, ‘It takes 5 minutes to walk there.’ In this usage, the infinitive is an obligatory argument. With the subject argument, the infinitive argument is not necessary: *Työ kestää viisi minuuttia*, ‘The work takes/lasts 5 minutes.’ *Koulupäivä kestää neljä tuntia*, ‘The school day lasts 4 hours.’ However, the subject argument has a special restriction in that the subject must refer to an activity that can expand in time. This is not the case when the verb *kestää* is used in a concrete way or as a cognitive verb expressing ability.

I also classified the Swedish loan verb *ruukata*, ‘to have a habit, to usually do something,’ as a secondary verb (example 235). This verb is a kind of bleak verb, and it demands an infinitive argument. In addition, this verb can be used with different kinds of subject arguments; in Tiina’s example, there was a human subject argument. However, it is also possible to say, *Tammikuussa ruukaa olla kylmää*, ‘It is usually cold in January.’

6.5.4. Aspectual verbs used in essays

Only one verb belonged to the aspectual verb in the essays: *alkaa*, ‘to begin.’

Table 6.28

Aspectual verb in essays of bilinguals (BL)

BL:					
Anna	Kalle	Mari	Pekka	Tiina	
		ALKAA		ALKAA	Begin
236)	Sitten minut vietiin lavalle jossa minä aloin laulamaan. (Tiina, E1). Then I+ACC take+PAST+PASS scene+ALL that+INE I start+PAST+SG1 sing+INF3+ILL ‘Then I was taken to a scene, where I started to sing.’				

In example (236), the verb *alkaa*, ‘to begin,’ took an infinitive argument in the 3rd infinitive. According to the normative grammar in Finnish, the verb *alkaa* takes an infinitive argument in the 1st infinitive. In spoken language, however, the infinitive argument of this verb is very often in the 3rd infinitive. The verb *alkaa* may occur without the infinitive argument, as in example (171).

Can the verb *alkaa*, ‘to begin,’ also when it is used without the infinitive argument, be described as a secondary verb, as I have done? Another possibility was to classify the verb *alkaa* without the infinitive argument as a primary A verb, much as the verb *loppua*, ‘to end,’ is classified; only when *alkaa* is used with an infinitive argument is it considered a secondary verb. It is odd that these two verbs, which both express time, are classified so differently. The modal verb *saada*, for example, is classified as a primary A verb when it expresses possession; in modal use, this verb is classified as a secondary verb. The verb *kestää*, ‘to endure, to last,’ also is classified as a primary A and a primary B verb as well as a secondary verb. However, the meanings of these verbs as secondary verbs and primary verbs are

different. Concerning the verb *alkaa*, ‘to begin,’ it does not have a different meaning when it is used with or without the infinitive.

According to Siro, it is not usual for the same verb in Finnish to be used as a transitive and an intransitive verb; the verb *alkaa* is an exception. The Swedish verb *börja*, ‘to begin,’ may have been the model for the use of *alkaa* as both a transitive and an intransitive verb (Siro 1975, 34) and, therefore, also as a secondary verb. Nevertheless, there is only one lexical verb, *alkaa*, ‘to begin’ (Leino 1986, footnote 4).

The verb *alkaa* was used without an infinitive argument in example (171) and with an infinitive argument in example (236). However, I interpreted the verb *alkaa* as the same verb in these examples.

6.6. Discussion

In this section, the differences between the informant groups and the tasks concerning the production of verbs in the semantic macro frames are presented. Did semantics, and not only input frequency, affect the learning of verbs by the classroom learners? I also discuss differences between the informant groups concerning how they used constructions connected to the verbs, especially constructions with the verb *olla*, ‘to be.’ Some basic differences between the groups in use of other constructions also are discussed. I did not do a total analysis of how the informants used verb arguments because the focus was on how verb semantics affects the learning of verbs. However, I will pay attention to some differences between the informant groups in how they used NP, infinitive, and sentence arguments of verbs in different semantic macro frames. In chapter 7, I will explain how the informant groups used infinitive arguments in their production in more detail. In the following presentation, I compare how the informants used the verb lexemes in their oral and written production only at the group level. Individual production is discussed more closely when I present the verb proficiency profiles in Section 8.1 of chapter 8.

Many of the informants’ sentences, especially those of the classroom learners, were produced using nominal encoding, where a bleak verb, most often the verb *olla*, ‘to be,’ was used. This verb can be used in addition to general constructions (i.e., constructions with complements or intransitive constructions with adverbials) also in many specific constructions in Finnish. The verb *olla* was used in complement sentences, most frequently in the production of the classroom learners. The complement sentence in Finnish is an easy sentence type because both arguments, the subject and the complement, are in the basic form nominative often. That may explain why it was used so often by the classroom learners, especially in the oral tasks. Earlier research of Finnish second language acquisition also concluded that complement constructions are used frequently by adult second language learners (Puro 2002: 75).

Another general construction with the verb *olla*, ‘to be,’ is an intransitive construction including an adverbial, usually an adverbial of location. In this construction, the adverbial of location was inflected in the correct case most often by the classroom learners, an exception being the Norwegian names or noun phrases in the oral tasks. In the essays, the adverbial of

location was marked with the correct case in most of the examples. The adverbials were always marked with the local case in the production of the bilinguals; in addition, some of the bilinguals used schematic idioms (see Croft & Cruse 2004: 237), common phrases in Finnish, in their oral production. Such phrases were not used by the classroom learners.

The specific constructions with the verb *olla* were not used very frequently by the classroom learners in the oral tasks. Existential, possessive, and state constructions are the most important types of such constructions in Finnish. In the essays, the classroom learners produced, besides general constructions, specific constructions more often than in the orals. The percentages of these constructions by the classroom learners were more similar to the percentages of the bilinguals in the essays, compared to the oral tasks, where the classroom learners clearly overused complement sentences.

The bilinguals produced all the specific constructions with the verb *olla* according to the goal language norm. Only one exception was found because one marginal construction, the so-called quantifier construction, was produced using a complement construction. So, a frequent and prototypical construction was used instead of a marginal and seldom construction. The prototypes are learned first, perhaps because they are more frequent (see Taylor 1998; Croft & Cruse 2004: 78).

Because sentences where the verb *olla* was the main verb were so frequent, it meant that stative constructions, not only expressions where verbs refer to activities, were frequently used by the classroom learners. In contrast, stative verbs, especially verbs of space, were not used frequently. Actually, there are not many verbs of space in Finnish because nominal encoding, such as expressions with the verb *olla*, is more commonly used to express space (see Oinikki 1997: 95).

Figure 6.1 compares the percentages of primary A, primary B, and secondary verbs in the production of the classroom learners to that of the bilinguals.

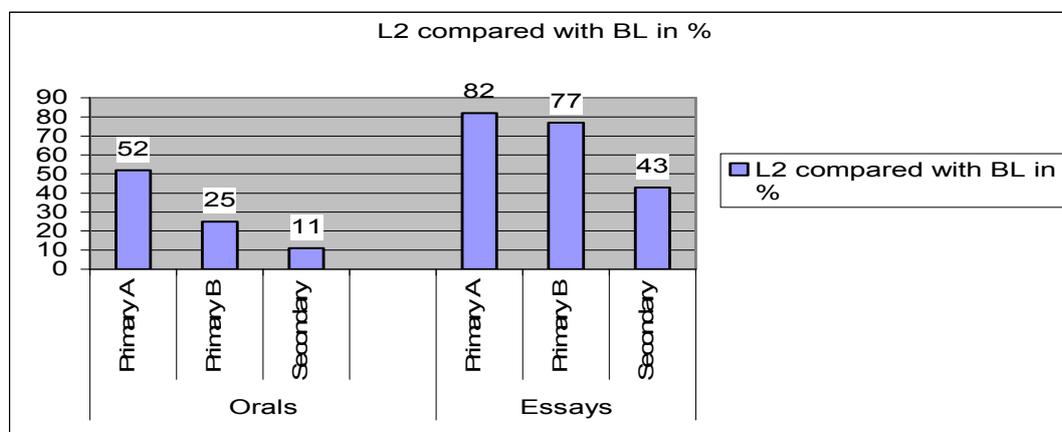


Figure 6.1. Primary A, B verb and secondary verbs in the oral and written production of classroom learners (= L2) compared to production of bilinguals (BL), when the production of the bilinguals represents 100%.

Figure 6.1 shows a larger difference in the oral tasks between the groups because the classroom learners used fewer verbs in the oral tasks than the essays when compared to the bilinguals. The same was demonstrated in chapter 5, where only the number of lexemes in the two informant groups was compared. Figure 6.1 shows not only that the number of lexemes is different between the groups but also that there is a correlation between the main semantic classification presented in this section and how the informant groups used the verbs in their production. I will present the numbers of the verb lexemes in the macro frames presented in this section in different types of tasks and explain the differences between the groups afterwards.

Figure 6.2 presents the numbers of lexemes in all the macro frames in the oral tasks and Figure 6.3 in the essays.

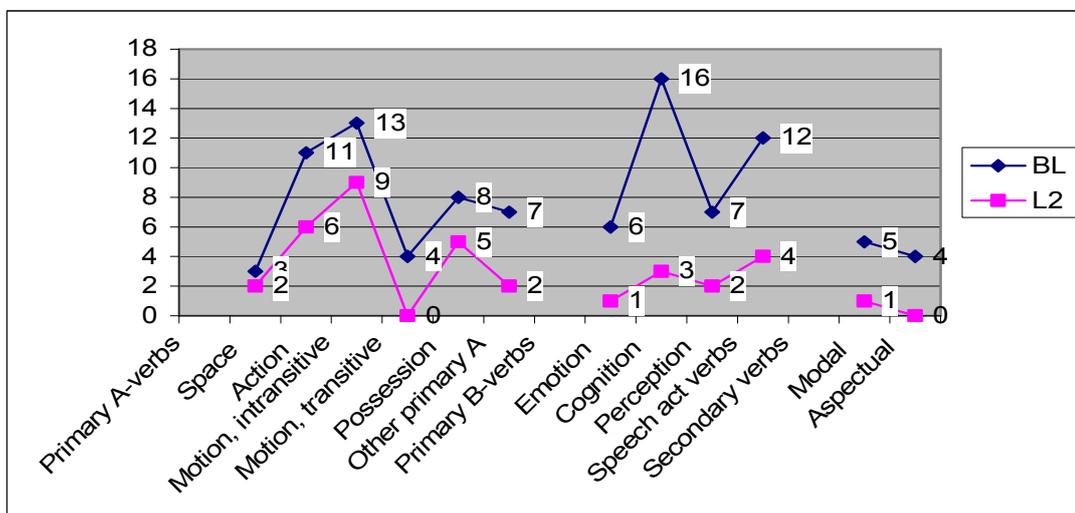


Figure 6.2. Number of verb lexemes in different semantic macro frames in orals tasks by bilinguals (BL) and classroom learners (L2).

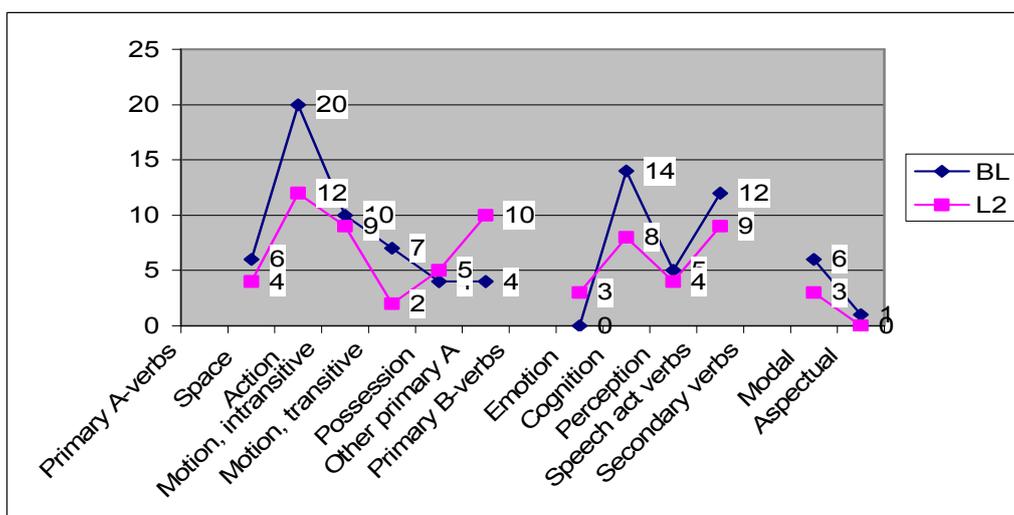


Figure 6.3. Number of verb lexemes in different semantic macro frames in essays by bilinguals (BL) and classroom learners (L2).

Figure 6.2 demonstrates that the classroom learners had fewer verbs compared to the bilinguals in all semantic macro frames in the oral tasks. This also was the case in most semantic macro frames in the essays (Figure 6.3.) However, in the essays, there were frames where the classroom learners produced more verb lexemes than the bilinguals. This was especially the case in the frame of *Other primary A verbs*, a field where there are many different types of verbs. Some of these were verbs that the classroom learners obviously had found in the dictionary. In the essays, the classroom learners produced more primary B verbs than in the orals, and they also used more modal verbs. Therefore, the use of verbs in the semantic macro frames was more similar between the groups in the essays than in the orals.

There were two semantic macro frames of the primary A verbs where the classroom learners used many verbs. They had more intransitive motion verbs than any other semantic group of verbs in the oral tasks, and the verbs in this macro frame were among the largest groups of verbs in their production in the essays. Another semantic macro frame with many verbs was the verbs of action, where both groups had many verbs, especially in the essays. The causative action verbs are presented as the ‘most typical verbs’ or prototypes of verbs, but both verbs of intransitive motion and action belong to the verbs that are learned early in first language acquisition (see Brown (1966 [1957]); Clark 1995: 55; Tomasello 2003: 215). Intransitive motion verbs and action verbs have some similar semantic characteristics that may make these verbs easy to learn: These verbs refer to a perceptual salient activity, and it is often possible to use them with only one argument, the subject. The classroom learners in particular used the intransitive motion verbs of manner to refer to an activity (*hiihtää*, ‘to ski,’ *ratsastaa*, ‘to ride’), and only the subject argument was used with such verbs. The verbs of action were used with only one argument, for example, when the informants explained what the comic strip figures were doing. Still, other arguments besides the subject were often used in these two macro frames. I will comment on the use of arguments by the informants later in this chapter.

There are verbs in both of these macro frames that are frequent in the input of the classroom learners. Frequent verbs of intransitive motion in the first volume of Slotte (1991) are, for example, *tulla*, ‘to come’; *mennä*, ‘to go’; and *käydä*, ‘to go.’ Still, the most frequent intransitive motion verb in the oral and written production, *kävellä*, ‘to walk,’ was not a frequent verb in the input of these informants. They also used other verbs in the frame of intransitive motion (*hiihtää*, *ratsastaa*, *pyöräillä*), which did not occur frequently in their input. Some of the frequent verbs of action in the textbook of Slotte (*tehdä*, ‘to make’; *leikkiä*, ‘to play’; and *syödä*, ‘to eat’) were used by the classroom learners. *Tehdä* was used frequently to form questions that seemed to be imitations of the questions used in the textbook. However, in the oral tasks, only two of the classroom learners used this frequent verb, and in the essays, it was used even less by this informant group. *Leikkiä* belongs to the top 10 verbs in Slotte (1991); still, only one of the classroom learners used this verb in her oral production. *Syödä*, ‘to eat,’ and *juoda*, ‘to drink,’ were often used by the same informants.

Possession verbs *antaa*, ‘to give,’ and *ottaa*, ‘to take,’ are frequent verbs in Finnish, but they were not that frequent in the first volume of Slotte. The most frequent possession verb in the oral production of the classroom learners was the verb *saada*, ‘to get,’ which is used very frequently already in the first volume of Slotte (1991); however, only two classroom learners used this verb in their production. The verbs *antaa* and *ottaa* are three argument verbs, but the verb *saada* can be used either with two or three arguments. The construction with three arguments was difficult to produce: The verb *antaa* was used correctly with three arguments only once; most often, the dative adverbial (to whom) was in the basic form.

There was one semantic group of primary A verbs where the classroom learners did not have any verb lexemes at all in the oral tasks, namely, transitive motion verbs. Only two transitive motion verbs were used in the essays of the classroom learners. It was not easy to explain why there were so few transitive motion verbs in their production. These verbs are concrete verbs; they are transitive, but they also encode motion, so they may be semantically more complex than intransitive motion verbs or transitive actions verbs, the two semantic groups where the classroom learners had many lexemes in both type of tasks. Transitive motion verbs occurred in the input of the classroom learners, and one of these verbs, *viellä*, ‘to bring,’ is used frequently in the first volume of Slotte. However, transitive motion verbs are verbs that take three arguments, so because of that, they resemble the possession verbs *ottaa* and *antaa*. The number of participants was suggested to be one of the reasons complicating the learning of verbs in child language acquisition (see Tomasello 2003: 215). It was not possible to verify if this actually was the reason these verbs were so poorly known by the classroom learners. Still, the sentences in their production, especially in the oral tasks, were often very simple, and the verbs they used only had two arguments most often.

The most obvious result that Figures 6.1 to 6.3 demonstrate is that the production of the mental verbs, or the primary B verbs, and the secondary verbs was vastly different between the informant groups than the primary A verbs. Figure 6.2 demonstrates that the classroom learners produced fewer cognition verbs and secondary verbs than the bilinguals did in the orals. The classroom learners had more mental, or primary B, verbs in all semantic macro frames in the essays than in the oral tasks but still quite a few verbs of cognition when compared to the bilinguals. They used very few modal verbs and no aspectual verbs (secondary verbs) in the essays.

There were fewer primary B verbs used in the production of the classroom learners in the orals, but some of the verbs were frequently used by many informants in this group. One of these verbs was the perception verb *katsoa*, which was the only verb used in the oral tasks by all the classroom learners in addition to the verb *olla*. This verb occurred in the input of the classroom learners (see Appendix 12), but it does not belong to the most frequent ones. The tasks probably influenced the use of this verb by so many of the classroom learners. However, many investigations of language learning demonstrate that equivalents of this verb belong to

the first verbs learned in both first and second language learning contexts (see Lieko 1992: 255, Viberg 1993: 364, Tomasello 2003: 249).

The most important cognitive verb in the production of the classroom learners was *haluta*, ‘to want’; in addition, this verb is a nuclear verb (Viberg 1993). *Haluta* is among the top 20 verbs in the first volume of Slotte (1991, see Appendix 12). The classroom learners not only used this verb frequently with an object argument but also with a verb argument both in the oral and in the written tasks. Besides this verb, only the emotion verb *rakastaa* (used twice) and the verb modal verb *saada* (used once) were used with a verb argument in the orals; in the essays, other emotion verbs with a verb argument besides the verb *haluta* were used, but *haluta* was used the most frequently with the infinitive or sometimes with a verb argument that was conjugated incorrectly in person. The verb string constructions are presented in more detail in chapter 7. In Finnish child language, *haluta* is used with NP arguments and infinitive arguments early, and before it is used with sentence arguments (Lieko 1992: 237, 253).

A large semantic group in the production of the classroom learners was the speech act verbs, where the number of verb lexemes actually was the same as the number of intransitive motion verbs in this group’s essays. One explanation may be that there were many verbs referring to activities that were classified as speech act verbs, for example, *lukea*, ‘to read,’ and *kirjoittaa*, ‘to write,’ which were not very different from the verbs referring to activities.

Cognition verbs and speech act verbs were used with sentence arguments. In the oral tasks, the classroom learners used only the verb *sanoa*, ‘to say,’ with a sentence argument; however, the classroom learners did not use a conjunction *että*, ‘that,’ in these constructions. The verb *sanoa* and its equivalents in other languages are among the first verbs to get sentence arguments (Lieko 1992: 255; Tomasello 2003: 249). In Lieko’s study, the child informant started to use the complex sentences without using *että*, and the conjunction occurred in her production quite a long time after the verb *sanoa* was used for the first time (op.cit. 262-263). The bilinguals produced sentence arguments connected to many speech act verbs (*sanoa*, ‘to say’; *kertoa*, ‘to tell’; *keskustella*, ‘to discuss’; *kysyä*, ‘to ask’; *selittää*, ‘to explain,’ in addition to the perception verb *kuunnella*, ‘to listen,’ and with the verb of cognition *tietää*, ‘to know.’ The bilinguals used both *että* and other conjunctions to mark the subordination between the clauses most often.

In the essays, the classroom learners produced sentence arguments with the speech act verbs *sanoa*, ‘to say,’ and *kuiskata*, ‘to whisper,’ and the cognition verbs *toivoa*, ‘to hope’; *uskoa*, ‘to believe’; and eventually *haluta*, ‘to want.’ The clauses are connected with the conjunction *että*, ‘that,’ or some other conjunctions sometimes. Still, most of the sentences produced by the classroom learners were simple sentences that included only one clause, even in the essays. In the group of bilinguals, there were more verbs used in the essays with sentence arguments, especially many verbs of cognition (*ajatella*, ‘to think’; *luulla*, ‘to suppose’; *mieltä*, ‘to think’; *tietää*, ‘to know’; *toivoa*, ‘to know’; *uskoa*, ‘to believe’); three speech act

verbs (*sanoa*, ‘to say’; *kysyä*, ‘to ask’; *vastata*, ‘to answer’); and one verb of perception (*nähdä*, ‘to see’). Both the numbers of infinitive arguments and sentence arguments in the oral and written tasks of the classroom learners clearly showed the differences between their oral and written production: The Finnish language in the essays of the classroom learners was more advanced.

Both the modal verbs and many of the cognition verbs are frequent verbs in Finnish. All the bilinguals used three modal verbs, which are the most frequent ones in Finnish: *saada*, ‘may’; *voida*, ‘can’; and *pitää*, ‘must’, and they used these verbs expressing deontic and dynamic modality. Verbs expressing epistemic modality are not as frequent as those three central modal verbs in Finnish, and only one of the bilinguals used the epistemic modal verbs *saattaa*, *taitaa*, ‘may’; however, some of the cognitive verbs like *luulla*, ‘suppose,’ and *uskoa*, ‘believe,’ have epistemic meaning and were used by other bilinguals in the orals and the essays. The modal verbs *päästä*, ‘manage to get’; *joutua*, ‘be compelled to’; and *tarvita*, ‘need,’ occurred only in the essays. The verbs *päästä* and *joutua* are specific Finnish verbs of modality (see Flint 1980), and only one of the bilingual informants used these verbs. Two of the bilinguals used other verbs to mean *päästä*, namely *saada* and *tulla* (examples 98 & 136).

The classroom learners used very few modal verbs in the essays. In the oral tasks, there was only one example where a modal verb occurred in this group. Besides the verb *saada*, ‘to be allowed,’ the verb *voida*, ‘can,’ is a frequent modal verb that occurs often in the second volume of Slotte (1987), but this verb did not belong to the production of the classroom learners yet. Still, the classroom learners identified *saada* in the verb identification tasks quite well, as they identified the verb *voida*. The third central modal verb that expresses necessity is *täytyy* or *pitää*, both meaning ‘must’; the verb *pitää* is presented only as a possession verb or as a verb of emotion in Slotte (1987, 1991). Slotte presents *täytyy* as a modal verb only in the last chapter of volume two (1987). Both these verbs occurred once as modal verbs in the essays of the classroom learners, and the verb *pitää* was used correctly in a necessative construction.

The verb *haluta*, ‘to want,’ is presented with a verb argument in the second volume of Slotte (1987), but so is also the verb *saada*, ‘may’, already used very frequently in the first volume of Slotte (1991) in a possessive meaning ‘to get.’ It was not easy to explain why the classroom learners used *haluta* with a verb argument the most often but the verb *saada* only very seldom; this fact was not grounded in the frequencies in the input. Only two classroom learners used the verb *saada* as a possession verb. Did they avoid using the verb *saada* because it is polysemic with two different meanings, that is, possessive and modal? Viberg concluded that the verb *få* in Swedish, having the same meanings as the Finnish *saada*, was underrepresented in the Swedish L2 acquisition compared to the L1 production (1993: 375). Still, both these meanings are found in Norwegian. Other modal verbs occurred in the input of the classroom learners, but they did not use them. The verb *päästä*, ‘to manage to get,’ is already presented in the first volume of Slotte (1991) and the verb *joutua*, ‘be compelled to,’

in the second (1987). The verb *tarvita*, ‘to need,’ was used as a verb of cognition by the classroom learners, but as a modal verb only by the bilinguals. Is the reason actually that the modal verbs are difficult to learn?

When the two tasks, that is, the orals and the essays, are viewed together, one may conclude that the semantic groups in which the classroom learners produced fewer verbs in comparison to the bilinguals were transitive motion verbs, cognitive verbs, modal verbs, and aspectual verbs. Cognitive verbs have some features in common with secondary verbs, particularly modal verbs. These two semantic groups are similar in Finnish. Actually, there is no consensus where the boundary between cognition verbs and modal verbs and even aspectual verbs exists in Finnish because there are no clear, formal criteria to differentiate these groups of verbs in Finnish (Hakulinen & al. 2004: 1488-1490). Cognitive verbs and secondary verbs have many common features, so there are also same challenges when learning these verbs. Cognitive verbs also are used to modify other verbs, such as modal verbs and aspectual verbs. All these verbs can have infinitive arguments, and both cognitive verbs and modal verbs are used in the speaker’s evaluation of the proposition. Modal verbs are difficult to learn both in first language and second language acquisition. Tomasello (2003: 224-225) referred to many investigations that provide evidence of slow acquisition of modal verbs in first language acquisition. Voionmaa concluded that modal verbs represent a particularly difficult learning task for adult learners of Swedish (1993: 209-210, see also Viberg 1993: 375).

The bilinguals had more primary A verbs but fewer primary B verbs and secondary verbs in the essays than in the orals. Consequently, there were fewer verbs in the written tasks compared to the orals of the bilinguals. It was not easy to explain why the number of primary B verbs in particular declined in the written tasks in comparison to the orals. The essays, especially the first narrative (*One Fine Day*) may have been too easy for the bilinguals. Also, in the other essay (*The School in Future*), some of the pupils may have chosen a narrative strategy. When using the narrative style, it is more natural to write about concrete activities using primary A verbs instead of presenting statements and using primary B verbs or secondary verbs. Anyway, the bilinguals used many verbs of action in the essays. The high number of primary A verbs in the essays may also have meant that the bilinguals were not used to writing Finnish, even though they were fluent in their oral communication.

Figure 6.4 shows the percentages of the different semantic groups of verbs compared to all verbs in the informant groups.

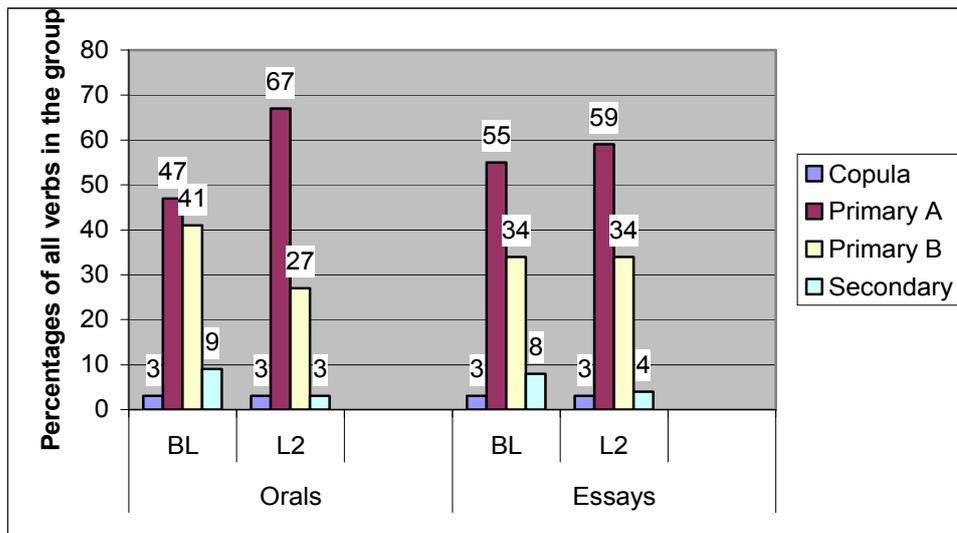


Figure 6.4. Percentages of copula verbs, primary A, primary B and secondary verbs of all verbs in group. BL = bilinguals, L2 = classroom learners, One group of pillars = 100%.

Figure 6.4 shows that the relative numbers of verbs in the semantic categories presented in this chapter were quite the same in the essays for both informant groups, which was in contrast to the oral tasks. This situation, however, was not only related to the fact that the number of primary B verbs had increased in the essays in the group of the classroom learners when compared to the orals. In addition, the bilinguals did not use as many primary B verbs in the essays as they used in the orals, so the percentages of these verbs in the two groups were similar in the essays.

It is possible to conclude that the classroom learners were not able to produce all of the arguments of the verbs according to Finnish construction structure. The adverbials of location expressing place were correctly used the most often, one exception being Norwegian words that were not always inflected in Finnish cases. An adverbial argument of intransitive motion verbs was used in its basic form only seldomly, but the classroom learners mixed the use of the adverbials expressing place and direction often. The arguments used with the intransitive motion verbs in the production of the bilinguals were most often correct.

The basic form was also used often when the verb argument was the so-called reaction argument (argument governed by the verb) in the production of the classroom learners. Local cases like elative, ablative, or illative are used with such arguments, but they do not express locality (for example *pitää* + elative means ‘like someone’); therefore, these adverbials were probably in the basic form. Also, the adverbials expressing time were not always inflected in correct cases. Verbs with three arguments were often problematic to use for the classroom learners, and in the possessive construction possessor was inflected correctly in adessive the most often when it was a pronoun. The bilinguals did not usually have problems with such verb arguments.

Learning the case of the object argument is a complicated task in Finnish because there are three possibilities: accusative, partitive, and nominative. The partitive was used correctly in expressions like *katson televisiota*, ‘se på TV’; *syön leipää*, ‘I eat bread’; *pelaan jalkapalloa*, ‘I play football’; or *rakastan sinua*, ‘I love you.’ The use of the object argument resembles item-based learning in these examples because the partitive case seemed to be learned only when it was connected to these specific expressions (see Tomasello 2003: 117 - 122). The object argument was sometimes used in the accusative case correctly; still, it was the object argument that was used in the basic form incorrectly more often when compared to all other verb arguments in the group of classroom learners. The bilinguals made errors with the object arguments, for example, they used the accusative case instead of the partitive case. Such errors are still frequent in the production of advanced Finnish second language learners. (See Lähdemäki 1995: 83-84). In contrast to the classroom learners, they used the object in the nominative case incorrectly only seldom.

The classroom learners made transfer errors more often. They used argument structures that were loans from Norwegian, for example, when they used a verb argument with emotion verbs. Also, the specific constructions with the verb *olla* (existential construction and state construction) were formed using an argument structure (a dummy subject argument), which was a transfer error from Norwegian. There were transfer errors from Norwegian influencing the Finnish constructions in the production of the bilinguals, but their errors were made in other constructions. The result construction was used once instead of using the complement construction (example 63). This was because the expression that was used was connected to the Norwegian verb *bli*, ‘to become.’ These transfer errors demonstrated that some Norwegian and Finnish constructions were mixed together. It is not unusual in language contact situation that constructions of different languages are mixed up (see Tomasello 2003: 175). Because the bilinguals mastered the Finnish language better, their constructions were most often Finnish constructions, in contrast to the classroom learners, who used Norwegian constructions more often. In pidgin languages, the same happens: The words are the words of the goal language but the constructions are loans from source language. The transfer errors of the classroom learners followed the *relexification principle*, as presented by Andersen (1990: 62): “When you cannot perceive the structural pattern used by the language you are trying to acquire, use your native language structure with lexical items from the second language.” The bilinguals did not make errors with the same constructions because these constructions, especially the existential construction, are relatively frequent in Finnish. As Andersen pointed out, if there is enough input, the learners will recognize how the constructions are formed in the goal language (op. cit. 63).

There were also errors where a frequent and more prototypical construction was used instead of an infrequent and less prototypical construction, for example, when the complement construction was used instead of the quantifier construction (examples 11 & 12). Even a frequent construction, a necessitative construction, was formed using elements from the transitive construction of Finnish in the production of one bilingual (example 211). These examples demonstrate that the different constructions of Finnish were mixed up. A prototypical and more frequent construction was used instead of a more marginal

construction, or such a construction influenced the form of another construction. Therefore, the frequency effects of language use seemed to be a factor influencing the constructions of the informants (see Croft & Cruse 2004: 311; Tomasello 2003).

The semantics of Finnish verb derivations caused problems for the classroom learners. It seemed particularly difficult for them to separate morphological causative verb derivatives from noncausative (*soittaa*, 'to cause to ring,' and *soida*, 'to ring'), or they used automotive derivations with a subject argument, even though such verbs lack an animate subject argument (e.g., *loppua*, 'to take end'). Finnish verb derivations represent a demanding learning task, even for advanced second language learners (e.g., Siitonen 1999). The bilinguals made some errors with the verb derivations, but their problems seemed not to be the morphological causative forms or automotive derivations, which they produced correctly. Derivations are found to develop late in the child language, even as late as school age (Tomasello 2003: 51-52).

The frequent verbs were used often in many frames. In both groups, the Finnish verbs were sometimes used in Norwegian frames, like the possession verb *ottaa*, 'to take,' which was used in the transport frame meaning 'to go by bus.' The problem was how to classify such examples. For example, should the verb *ottaa* have been classified as a verb of intransitive motion in this case? It could have been a possible solution, but I decided not to present the frequent verbs in many different macro frames because the extended meaning of these verbs in different frames was not so different from the basic meaning. Still, when the informants used verbs in total different meanings than they are used in Finnish, such verbs were classified following the function they seemed to have in the expression. Therefore, the verb *maalata*, 'to paint,' was classified as a verb expressing the sound of an animal, 'to purr,' and the verb *loppua*, 'to end,' was classified as a verb of action because it was used in the function of the verb *lopettaa*, 'to cause to end.' In addition to using the verbs in frames where they are not used in Finnish, the informants also could profile the verbs differently from the goal language. There are many examples of errors made in the profiles. For example, the verb *kävellä*, 'to walk,' was used instead of the verb *mennä*, 'to go,' in the production of the classroom learners because it seemed to profile walking, like the Norwegian verb *gå*, 'to go.' The verbs *nähdä*, 'to see,' and *katsoa*, 'to look,' were used in the frame of perception, but they profiled the act of seeing differently, that is, as an intentional or a nonintentional act. These verbs were mixed up in the production of the classroom learners.

Constructions connected to the verbs used by the classroom learners in the oral tasks proved that language learning is a gradual process that starts from formulaic elements recorded in memory: some verbs were only used in one form (*En tiedä*, 'I don't know'); prefabricated formulas like *Tässä on X*, 'Here is a/ the X.' Some phrases seemed to be item-based constructions, for example, those where a verb was used with a partitive object like *rakastan sinua*, 'I love you.' Learning the possessive construction demonstrated item-based learning because it was used correctly most often only when a pronoun was used as a possessor. All these examples show that the classroom learners mastered some concrete pieces of language that they used in their oral production (see Tomasello 2003: 305-310).

Because the present study is not a developmental study of the language learning, but an investigation how environment affects language learning, it is not possible to explain in detail why the classroom learners had learned some verbs, but not other verbs. One explanation already mentioned in the previous chapter was the frequencies of verbs in the textbooks used in the classroom. However, textbook frequencies do not explain everything, as evidenced in this chapter.

The semantic analysis of the verbs used in the oral and written tasks demonstrated two basic results: The classroom learners produced more complex language in the essays than they were able to do in the oral tasks. Therefore, their production was more similar to the production of the bilinguals in the essays. Still, the number of verbs in some semantic macro frames showed that the classroom learners, compared to the bilinguals, were only at the beginning of their learning process. They had only a few verbs in the semantic macro frames of mental and modal verbs. These verbs are connected to the development of the syntactic constructions in language, as the investigations made of child language demonstrated (Lieko 1992; Tomasello 2003: 249-253). Therefore, it was possible to conclude that the differences between the bilingual informants and the classroom learners were not only in the number of verbs. The number of constructions used with the verbs reflected important differences between the two groups.

7. VERB CONJUGATION AND KNOWLEDGE OF VERBS

7.1. Inflectional knowledge and language learning

Usage-based models reject that inflection basically consists of processes that are mastered by rules. The word *paradigm* is seen as one of the basic concepts. The word paradigm is a concept of traditional grammar, meaning all inflectional forms of a lexeme (Karlsson 1983: 38). In the same way as constructions as well as paradigms form networks (see Section 6.1.3.), the network relationships in the paradigm are kept together using schemas instead of rules (Croft & Cruse 2004: 291-308).

In the following sections, I present different models of morphology and discuss their relevance to language learning. In Section 7.1.1, the iconic principle, a central principle in natural morphology as well as in language learning, is presented. In Sections 7.1.2, I present the network model of Bybee and compare it with rule-based models. In Section 7.1.3, I present a Finnish model called field morphology, and I also discuss the similarities and differences between this model and Bybee's model. In Section 7.1.4, the essential principles of cognitive processes according to usage-based models are presented. Section 7.1.5 presents the conjugation of Finnish verbs, and Section 7.1.6 presents the results of earlier research on the conjugation of Finnish verbs.

7.1.1. Natural morphology and iconic principle

Theoretical linguistic models are not similar to the psychological processes of language learning, but a linguistic model that does not reflect language processing and learning at all is not a realistic model of language (Karlsson 1983: 21-22). Evidence from language learning and processing means that external evidence, not only internal evidence (i.e., analysis or intuitions of language structure), is regarded as important for linguistic theory (Määttä 1994: 19.) *Natural morphology*, similar to *natural phonology*, considers that evidence from language learning and language change is important when developing a theory of morphology (Dressler 1985; Määttä 1994: 178).

The theory of natural morphology explains that there is a tendency in language to search for maximal morphological naturalness. This means realising the iconic principle of one form and one meaning. This situation is considered ideal for a morphologic system. In addition, there are many parallel tendencies in language to search for naturalness in morphology; these tendencies may be in conflict with each other. Also, the tendency to search for naturalness in phonology may conflict with the principles of naturalness in morphology. As a system, language is always in dynamic movement (Lindgren 1998: 26).

The iconic principle is one of the central principles in language change (Anttila 1972:407), and this principle also is seen in language acquisition. Particularly in the so-called cognitive approach to language learning, the iconic principle is used to explain why one-to-one mappings between meaning and form are learned earlier than systems that differ from this principle (Slobin 1979: 188). Slobin pointed out that children's language is more iconic than

adults' language (2001: 441). The one-to-one principle is one basic cognitive principle that has been found to influence L2 learning (Andersen 1990: 51; 1993: 329). Morphological change and language acquisition seem to have some parallels, although they are not identical processes. Language learning is an individual process, but language change is a social process (Paunonen 2003). However, an individual learns language in a social context, which may have consequences for language learning processes and results that are parallel to the processes that happen in language change.

7.1.2. Network, schemas, and theories of morphology

Traditionally, three frameworks have described morphology: the Item and Process (IP) model, the Item and Arrangement (IA) model, and the Word and Paradigm (WP) model. The IP model takes one (underlying) form as a basic form. Only this form is found in the lexicon, and all of the other forms are derived from this form by rules. In the IA model, all of the surface stem alternates, allomorphs, are listed in the lexicon. A rule describes the distribution of the alternates. In the WP model, the basic lexical unit is a word, not a stem, and the lexicon includes all of the forms of a paradigm (Bybee 1988: 120).

It has been claimed that the IP model is a simpler model than other models because it also hypothesises that there are only a few lexical items, namely, the basic form, represented in the human brain. In addition, there must be a set of rules to generate all other forms from the basic one. Because rules and representations of lexical items are dependent on each other, a simple lexicon demands a larger set of rules to produce the target form; therefore, the argument of economy is questionable (Karlsson 1983: 22). In addition, Bybee pointed out that the IP model is considered more preferable because of the simplicity and elegance of the theoretical description. The other models demand more lexical items, so these models are perceived as inferior. However, Bybee remarked that the notion that the lexicon must be small and simple is disappearing. This is because linguists now realize the extent of lexical idiosyncrasy (1988: 120, footnote 1).

Bybee also commented on the shortages of the IP model. One of these is that the IP model does not include paradigms, even though paradigms are important in child language acquisition or language change (Bybee 1988: 121-123; see also Karlsson 1983: 40, 364). The IP model also does not explain why some rules are more productive than others. The major critics of the IP model have argued that the model looks at rules and lexical items as discrete elements of grammar (Bybee 1988: 120-123). Instead of the IP model or a word-and-rules model, Bybee presented a usage-based model of morphology (Bybee 2003: 7; Croft & Cruse 2004).

Bybee presented a model of language in which the lexicon and morphological components are not two separate parts of grammar; rather, they form a continuum. Even though there are regularities in language that can appear as rule-like behaviours, these regularities are not presented as rules. Instead of rules, there are schemas, which are generalisations made by language users. Schemas are always dependent on lexical entities. Schemas are formed on the

basis of lexical items; schemas develop concurrently with vocabulary acquisition. In contrast to rules, which are considered to have their own representations in mind, schemas are always connected to the lexicon. Schemas vary concerning their generality, with some schemas being more general than other (Bybee 1988: 123; 2003: 26-28).

Bybee distinguished between *token* and *type frequency*. The former is the frequency of use of an individual word form; the latter is the number of lexemes that belong to one inflectional type. Type frequency forms the basis for the productivity of schema because the inflectional patterns that include many lexemes are used the most often as the model for new forms. Even though token frequency may mean that items in a small paradigm resist analogical levelling, infrequent lexical items may be inflected based on the model of a frequent inflectional type. For example, weep/wept is inflected according to the high-frequency model in English “weep: weeped,” but the frequent forms keep/kept and sleep/slept are more resistant to analogical levelling (Bybee 1985: 133; 2003: 10-12).

The difference between Bybee’s model and the rule-based IP model is that the schema model of Bybee sets the internal structure of a word in relation to other words in a cognitive network. Such relatedness can be identified on the basis of both semantic and phonological relations. The semantic relations are more important than the phonological because phonologically different stems are still related morphologically in a word paradigm because of their meaning. The model also provides relatedness in various degrees. Bybee presented the notion of *lexical strength*, which is an index of word frequency. Frequently used forms have an expanded lexical strength, and seldom used forms lose it. Lexical strength is also seen in the maintenance of irregularity and suppletion (inflection type go-went) in high-frequency forms in the history of language (Bybee 1988: 131-132, 139; 2003: 98).

Bybee’s theory represents a functional and typological approach to language that has similarities to the theory of natural morphology because in both theories, external evidence or evidence from language acquisition as well as from language change are used to explain linguistic phenomena (Määttä 1994: 187). In the next section, I will compare Bybee’s theory to the Finnish theory of morphology, known as field morphology, established by Finnish grammarians (e.g., Paunonen 1983 [1976]; Määttä (1994) presented field morphology as a theory of morphology). I will argue that these two theories have many similarities.

7.1.3. Field morphology and paradigm

Field morphology represents a functional rather than a formal approach to language. Language is seen to include not just one but many kinds of phenomena. Language consists of entities, processes, and paradigms (Pike 1982: 38; Määttä 1994: 23). Entities are, for example, words, stems, and affixes that are assumed to be in the mental lexicon. Although it is accepted that there are processes in morphology, for example, allomorphs caused by assimilation, complicated morphophonemic variation, which is typical in Finnish, is presented by using the paradigm. The paradigm represents *field phenomena* in language, and it is a central concept in field morphology (Määttä 1998: 8).

In field morphology, the concrete forms of words or parts of word forms are the basis of the paradigm. Field morphology does not operate with abstractions as the starting point of inflection, as the IP model does. Allomorphs are seen to represent the basic units of morphologic analysis. They are not seen in isolation, but from the perspective of how they function in a paradigm. Both stem allomorphs and ending suffixes include knowledge of the whole paradigm. For example, in a verb conjugation, an infinitive suffix indicates the conjugation paradigm. Because allomorphs extend beyond their own boundaries, they are indexical in character (Anttila 1974; Paunonen 1983 [1976]: 79-81).

Mastering inflection means that different paradigms are separated from each other and new words are located in the right paradigm. Because paradigms often are ambiguous, it may be difficult to find the right paradigm for a particular word. Some word forms in a paradigm may resemble word forms in another paradigm, and this ambiguity may cause problems for the language learner (Paunonen 1983: 62-64 [1976]). Both children and L2 learners often produce forms showing that a word is in the wrong paradigm (look at Räisänen 1975; Laalo 1995: 163; Martin 1995: 166).

Some paradigms are easy to separate from other paradigms; others are difficult. Some paradigms do not have any particular form showing that the word form belongs to this paradigm. The identification has to be done on the basis of all word forms in this paradigm. When the paradigm includes some redundancy, which means that there are word forms that clearly indicate the correct paradigm, the identification becomes easier (Paunonen 1983: 65 [1976]).

Some paradigms are more productive than other paradigms. Paunonen separated basic paradigms and specific paradigms. Basic paradigms are general and simple; they are referred to as *unmarked*; specific paradigms are more complicated, and they are referred to as *marked*. There is less allomorphic variation in a basic paradigm than in a specific paradigm. Basic paradigms, then, are more natural, if one uses the terminology of *natural morphology*.

Though a paradigm is a small and complicated marked paradigm, frequent words are still kept in such paradigms. In comparison, uncommon or new words are easily located in an unmarked paradigm. Feedback from other language users is also an important factor in keeping the paradigms separate. If feedback is lacking, the basic paradigms will easily win over the specific ones. Language learners have a tendency to simplify the paradigms, but the feedback of the language community keeps even specific paradigms distinct. Exceptions are the paradigmatic connections of unusual words (Paunonen 1983: 69-70 [1976]).

Paunonen also pointed out that learning and separating different paradigms is based on abstractions: The primary identification of the phonemic structure of the stem or, sometimes, stress may have a role to play. Word paradigms form inflectional types based on the phonemic and morphologic structure of words. Paunonen's analysis was based on the nominal inflection in Finnish, in which parallel suffixes of different cases are organised into groups. Basically, in paradigms where the stem ends in a short vowel, different suffixes are chosen than for paradigms ending in a long vowel (Paunonen 1983: 71-75 [1976]).

The inflectional types form a dynamic system. There are some inflectional types that form a centre in a network system. This means that words belonging to other inflectional types move into these types (Paunonen 1983: 78-79 [1976]). In Section 6.1.6, I present examples of such centres among the inflectional types of verbs.

In Bybee's theory of morphology, as well as in field morphology, concrete word forms and allomorphs are chosen as the basic units in morphology. Phonemic structure besides semantics is considered important as the basis for understanding both theories. Word forms are held together by associative links. In both of these theories, in the same way as in natural morphology, the paradigms are in a hierarchical organization; some of them are more natural than other paradigms. On the other hand, frequency means that complicated allomorphic variations are maintained in some words; frequency is a force that works against the general tendency to go to less complicated, more natural paradigms. Bybee called this factor *lexical strength*. Thus, there are many similarities between these theories. Besides frequency, Paunonen also used feedback from other language users as one factor that explains why language users do not turn from complicated inflectional systems to less complicated systems.

7.1.4. Source-oriented 'rules,' product-oriented schemas, and analogy

In IP morphology, there is one basic form of the lexicon, and other forms in the paradigm are produced from this form by rules. The derivation has only one direction, namely, from the basic form to the inflected form (Karlsson 1983: 40). Therefore, the rules are source oriented (Croft & Cruse 2004: 302).

Usage-based models suggest that there are also product-oriented schemas that cannot be described by rules. Product-oriented schemas are "*schematic generalizations across the 'derived' forms which are represented as independent units*" (Croft & Cruse 2004: 302). In other words, derived forms are inflected forms, including different allomorphs, which form groups on the basis of their phonetic and semantic similarity. These groups can form schemas whose productivity depends on the type frequency (Croft & Cruse 2004: 302). A product-oriented schema is a cognitive template or pattern that the speaker uses to reshape a given form in a creative way so that this form fits the schema (Bybee 2003: 126). The product-oriented schema is based on word paradigms, so it is a cognitive schema of *field phenomena* in language, a basic concept in field morphology (see Määttä 1998: 8).

The forms in a paradigm form associative links that are kept together using analogy to identify similarities and differences between entities (Määttä 1994:1, 190). In field morphology, analogy is one of the basic concepts that explains not only how the network is held together but also how new forms are created on the basis of forms that are known. In other words, analogy explains the network as static and dynamic phenomena (Määttä 1998: 12). Analogy views structural similarity as a static phenomenon and process as a dynamic phenomenon. Process involves "inferences" about the relations between entities, whereas static analogy is established using dynamic analogy (Itkonen & Haukioja 1997: 137).

According to Langacker, distinctions between analogy and schema need not to be drastic; rather, it is a question of how analogy is defined. Still, if analogy is understood to mean that no any generalizations exist, but only the direct modelling of novel expressions on the basis of familiar ones, then analogy and schema are not identical (2000b:144-145). However, because analogy also means structural similarity, when it is defined as a static phenomenon in field morphology, it can have the same meaning as schema. In this respect, field morphology, Bybee's network model, and even cognitive linguistics are different from connectionism. As Bybee pointed out (1995: 433), "Another difference between existing connectionist models and the network model is that connectionist models at present form generalisation only over relations between the base and derived form and do not form generalisations over set of derived forms. That is, connectionist models do not form product-oriented generalisations. Moreover, I see no sense in which connectionist models abstract schemas from relations among words, as proposed in the network and cognitive models."

Product-oriented schemas can be identified as having been created by analogy because these schemas are created by inferring similarities between derived forms. Product-oriented schema holds the forms together on the basis of the family resemblance of its members. For example, English past tense forms are included in the semi-productive class *string, strung*, which forms a product-oriented schema in English. This verb class was a strong verb class of Old English, but verbs that did not originally belong to this class were included in it using product-oriented schema because not only verbs that have *i* in the present tense, like *string, strung*, but also verbs that have other vowels in the present tense like *strike, struck* or *shake, shuck* (dialectal) have entered the class. According to Bybee, only a product-oriented schema can explain these forms because they are produced using the schema of the past tense, not on the basis of the present tense forms (Bybee 2003: 126; 131).

Itkonen and Haukioja (1997) explained how laws (i.e., rules) are created using analogy. Analogy is an inductive process in the first place, creating new forms in the proportional analogy process; for example, cat is to cats as dog is to dogs, but when a child draws the inference that the plural form *-s* can be used with all nouns, analogy then becomes an instance of deduction. According to the researchers, "Induction is the process by which laws are attained while deduction is the process by which laws are employed to explain facts" (140). Gentner and Medina concluded that the development of abstract structural representations and symbolic rules is based on perceiving similarities and making analogous comparisons (1998: 291-292).

Modular theorists have rejected analogy, stating that no discovery procedure or method for deriving grammars on the basis of linguistic data exists. This is why analogy has been rejected in modular theories as an explanation for linguistic processes (Haukioja & Itkonen 1997: 132; Määttä 1998: 1). In modular theories, rules are innate rather than the result of reasoning, as they are in usage-based models and also in the cognitive approach to language learning (see Mitchell & Myles 1998:74-77). In usage-based models, rules are considered schemas, even if source-oriented schemas can be modelled by rules (Croft & Cruse 2004: 327). However, source-oriented schemas in usage-based models are not identical with the rules as these are

described in modular theories because “a source-oriented schema is a schema with a systematic structural relationship to another schema (the source in a rule based model)” (op.cit. 301). Even a source-oriented schema or ‘rule’ is an associative relationship between different forms in a cognitive network. (Bybee 2003: 21). Product-oriented schemas cannot be modelled by rules because they are based on analogies between inflected forms in the networks of word paradigms. (Croft & Cruse 2004: 327). So, usage-based theories also reject the dual-processing model (e.g., Pinker & Prince 1994; Pinker 1999) in which regular morphology is explained by rules, but irregular morphology is explained using associative networks.

In the same way as usage-based theories, I consider language learning to be based on input from which the learner makes inferences. Therefore, analogy is the basic process of learning that results in the formation of schemas or generalisations about the linguistic material. When generalisations are on a very general level, rule-like behaviour can be seen (Bybee 1988: 135). Still, rules or explicit explanations have traditionally been used to teach the regularities of language in language classrooms. Therefore, one may ask if classroom learners also use rules in their production. When Martin analysed how Finnish L2 learners learned the inflection of Finnish nouns, she concluded that both rules and analogy were used. The use of rules explained the easy cases, but analogy was used when the inflection processes were more complicated (1995: 201).

When I analysed the production of the informants, my intent was to determine if source-oriented schemas or product-oriented schemas had been used in the connections between the entities that the informants have in their mental lexicon. Source-oriented schemas are used when a derived form is produced from a basic form; source-oriented schemas are process in field morphology. If product-oriented schemas are used, then the forms are produced using derived forms as analogical schema, and paradigmatic forces are involved. Field phenomena describe such products according the field morphology.

If one assumes that indexical meaning exists between different allomorphs and suffixes in the paradigm, as suggested in the field theory of morphology (Anttila 1974; Paunonen 1983 [1976]: 79-81), it is reasonable to suppose that indexical meaning can be determined only if there is enough substance, or enough lexical items. One may conclude that the forms of language increase as vocabulary expands. In contrast, if language forms are learned by rules, the parallel expansion of forms and vocabulary need not to be true.

7.1.5. Conjugation of Finnish verbs

Finite verbs in Finnish are conjugated⁵¹ by mood, tense, person, number, and voice. Besides the finite verbs forms, there are also many non-finite verb forms in Finnish, both infinitives and participles. 1st infinitive is a dictionary form in Finnish; this infinitive is used as an argument of cognitive verbs and modal verbs most often. Another frequently used infinitive is

⁵¹ Both concepts *conjugation* and *inflection* are used in the present study; inflection is a more general term; conjugation is traditionally used to refer to inflection of verbs. (See Lyons 1968).

the 3rd infinitive, which is inflected in cases; it can describe an ongoing action or process or a concrete or an abstract movement (see Karlsson 1999: 182-192).

The complexity of verb conjugations in Finnish is caused not only by the number of morphosyntactic conjugation categories mood, tense, person and number⁵² (see Karlsson 1983: 224) but also because some verbs also have many stem variants, which results in a complex morphophonology. Besides the vowel stem, a consonant stem occurs in different conjugation categories. The so-called consonant gradation increases the number of stem variants of a single word. Before the past tense marker *-i*, there occur vowel changes at the end of the stem; therefore, stems in the past tense are different from stems in the present tense (Karlsson 1999: 55).

There are four mood categories in Finnish: indicative, imperative, conditional, and potential. Three of these categories are used frequently in Finnish, but potential is a category that is disappearing. Consequently, I will comment only on the categories of indicative, imperative, and conditional. All of these categories occur in the active and passive voices. Because negative forms are not similar to affirmative forms in Finnish, this fact complicates the conjugation of Finnish verbs.

The number of inflectional types of verbs in Finnish varies in different presentations. Karlsson (1983) presented 5 inflectional types, but the *NS* (Modern Finnish lexicon) presents 45 inflectional types, and the *Suomen kielen perussanakirja* (PS) presents 25 inflectional types.

According to Karlsson, the number of paradigms in the *NS* can be defended because the lexicon presents a practical orientation to inflection in Finnish. From a theoretical point of view, such a description is not suitable. In Karlsson's theoretical frame, the inflection types of Finnish verbs are reduced to 5 (1983: 202, 211). In Finnish grammar (1999), which is a pedagogical grammar, he presented 6 conjugation types.

The reduced number of inflectional types in Karlsson (1983) is based on psychological relevance and theoretical argument. Inflectional types, which include only a few members, do not form an inflectional type of their own in Karlsson's presentation; rather, they are included in more general inflectional types. Argumentation on the basis of psychological relevance is premised on the impossibility to memorise and differentiate so many categories, as presented in the *NS*. These more special verbs are produced by rules in the theoretical frame of Karlsson, or they are seen as a part of the lexicon. When the number of paradigms is reduced, the number of rules increases (1983: 202, 211). In Karlsson (1983), the IP model of morphology formed the theoretical frame, but beside rules, he also used paradigm as a theoretical concept (1983: 38-40).

The following table shows the verb conjugation types of Karlsson, according to their presentation in Finnish grammar (1999).

⁵² Finnish passive is included in the category of person because passive is used to refer to an infinite person (Karlsson 1983: 224).

Table 7.1

Inflection types of Finnish verbs according to Karlsson (1999). The lexical frequency of the types is presented according to Karlsson (1983: 213-214). In Karlsson, (1983) type V is included in inflectional type IV. If a verb has a consonant stem, it is found in the 1st infinitive. A vowel stem is used in personal forms, for example, in the 3rd-person singular. The past participle is one of the forms where the consonant stem may be used, though *-t* at the end of the infinitive stem is assimilated to *-n* before the past participle ending.⁵³

I. infinitive	3.person singular, indicative	Past participle	Lexical frequency, %
I ASU/A	asu/u	Asu/nut	58
II HALUT/A *	Halua/a	Halun/nut	11
III SAA/DA	Saa	Saa/nut	7
IV MEN/NÄ	Mene/e	Men/nyt	25
V TARVIT/A	tarvitse/e	Tarvin/nut	
VI KYLMET/Ä	kylmene/e	Kylmen/nyt	1

* Segmentation of the stem and suffix in types II, V, and VI is traditionally presented, as in Table 1, because *t* is a part of the stem, for example, in past participle forms, but in the 1st-infinitive form, *t* seems to have restructured to the first infinitive suffix (halu/ta; Karlsson 1983: 297).

The 1st-infinitive form is the dictionary form in Finnish. Although the 1st infinitive is used as a dictionary form, it is not considered to be the basic form of Finnish verbs. According to Karlsson, the basic form is the strong vowel stem, which occurs in the 3rd-person singular. This form is the most frequent textually, and children seem to learn this form earlier than other forms, though they also learn the imperative, 2nd-person singular quite early. Both 3rd-person singular (most forms) and infinitive forms have endings. In this way, these forms are different from the dictionary form of Finnish nouns, nominative singular, which is considered the basic form of Finnish nouns. This form has no ending, but neither the dictionary form of verbs nor the basic form occurs without an ending suffix (Karlsson 1983: 35, 208).

Though the 1st-infinitive form is not considered a basic form in Finnish, it remains important. For example, in grammar as well as in language classrooms, the inflectional types are presented based on the 1st-infinitive form. As the table shows, if a verb has two stem variants, the consonant stem variant can be found in the 1st-infinitive form. The verb types I and III have only one stem variant, namely, a vowel stem. All other types have two stem variants: a vowel stem and a consonant stem. A consonant stem is used in many verb forms: past participle, before imperative forms beginning with *k-*, potential forms, passive forms, and 2nd infinitive (Hakulinen & al. 2004: 102); in contrast, the vowel stem is used in the most frequent forms: personal forms in present and past tense, conditional, imperative 2nd-person singular, and 3rd infinitive.

⁵³ Hakulinen & al. (2004: 103-105) presents only four inflectional types of Finnish verbs because types V and VI in Table 6.1 are included in type II.

In the IP model, one form usually is the basic form, and the other forms are produced from it (Määttä 1994: 170). When the analysis of the inflection is based on the other models, the question of the basic form is not that relevant. In models based on the paradigm, some forms are more central than other forms, perhaps because they are more frequent (Määttä 1994: 177), and the 3rd-person singular in the present tense certainly is an important form also in the verb paradigm, because of its frequency; however, there also might be other important forms.

Table 7.2 presents examples of verbs of different inflectional types in Finnish. I will comment on some characteristics of inflectional types of verbs. My comments are based on Karlsson (1983 & 1999).

Table 7.2

Verb inflection types and examples of verbs conjugated in indicative present tense, affirmative and negative forms, indicative past tense, affirmative and negative forms, conditional present tense, affirmative forms, and indicative present tense passive, affirmative and negative forms. No CG = No consonant gradation, CG = Consonant gradation. p. = person; sg. = singular; pl. = plural. Type I verbs are inflected in all personal forms in the singular and the plural; in other types, only 2nd-person singular and 3rd-person singular forms are given. In negative inflection, personal endings are added to negative verbs; in the present tense, the main verb is the verb stem; in the negative past tense, the main verb is a perfect participle. The imperative in the 2nd-person singular is a verb stem; thus, it is the same form as the negative present tense, and it is not presented in the table. The conditional is marked with the suffix *-isi-*, and it always has a strong stem variant. The passive always has a weak stem variant.

Verb type	Indicative, Present tense, Affirmative	Indicative, Present tense, Negative	Indicative, Past tense, affirmative	Indicative, Past tense, egative	Conditional, Present tense, affirmative	Passive, affirmative and negative form
Type I						
No CG ASU/A						
1.p.sg.	asu/n	e/n asu	asu/i/n	En asu/nut	asu/isi/n	asu/ta/an
2.p.sg.	asu/t	e/t asu	asu/i/t	Et asu/nut	asu/isi/t	ei asu/ta
3.p.sg.	asu/u	ei asu	asu/i/	Ei asu/nut	asu/isi	
1.p.pl.	asu/mme	e/mme asu	asu/i/mme	e/mme asu/neet	asu/isi/mme	
2.p.pl.	asu/tte	e/tte asu	asu/i/tte	e/tte asu/neet	asu/isi/tte	
3.p.pl.	asu/vat	ei/vät asu	asu/i/vat	Ei/vät asu/neet	asu/isi/vat	
CG ALKA/A						
2.p.sg.	ala/t	e/t ala	alo/i/t	e/t alka/nut	alka/isi/n	ale/ta/an
3.p.sg.	alka/a	ei ala	alko/i	Ei alka/nut	alka/isi	ei ale/ta
Type II						
No CG HALU/TA						
2.p.sg.	halua/t	e/t halua	halus/i/t	Et halun/nut	halu/isi/t	halu/ta/an
3.p.sg.	halua/a	ei halua	halus/i	Ei halun/nut	Halu/isi	ei halut/a
CG HYPÄ/TÄ						
2.p.sg.	hyppää/t	e/t hyppää	hyppäs/i/t	e/t hypän/nyt	hyppä/isi/n	hypä/tä/än
3.p.sg.	hyppä/ä	ei hyppää	hyppäs/i	Ei hypän/nyt	hyppä/isi	ei hypät/ä
Type III:						
No CG SAA/DA						
2.p.sg.	saa/t	e/t saa	sa/i/t	Et saa/nut	Sa/isi/t	Saa/da/an
3.p.sg.	Saa	ei saa	sa/i	Ei saa/nut	sa/isi	Ei saa/da

Verb type	Indicative, Present tense, Affirmative	Indicative, Present tense, Negative	Indicative, Past tense, affirmative	Indicative, Past tense, egative	Conditional, Present tense, affirmative	Passive, affirmative and negative form
No CG EPÄRÖI/DÄ						
2.p.sg.	epäröi/t	e/t epäröi	epärö/i/t	e/t epäröi/nyt	epärö/isi/t	epäröi/dä/än
3.p.sg.	Epäröi	ei epäröi	epärö/i	Ei epäröi/nyt	epärö/isi	Ei epäröi/dä
Type IV:						
No CG MEN/NÄ						
2.p.sg.	mene/t	e/t mene	men/i/t	Et men/nyt	men/isi/t	men/nä/än
3.p.sg.	mene/e	ei mene	men/i	Ei men/nyt	men/isi	Ei men/nä
CG AJATEL/LA						
2.p.sg.	ajattele/t	e/t ajattele	ajattel/i/t	e/t ajatel/lut	ajattel/isi/n	ajatel/la/an
3.p.sg.	ajattele/e	ei ajattele	ajattel/i	Ei ajatel/lut	ajattel/isi	Ei ajatel/la
Type V:						
No CG TARVIT/A						
2.p.sg.	tarvitse/t	e/t tarvitse	tarvits/i/t	Et tarvin/nut	tarvits/isi/t	tarvi/ta/an
3.p.sg.	tarvitse/e	ei tarvitse	tarvits/i	Ei tarvin/nut	tarvits/isi	Ei tarvit/a
Type VI:						
No CG KYLME/Ä						
2.p.sg.	Kylmene/t	e/t kylmene	kylmen/i/t	Et kylmen/nyt	Kylmen/isi/t	kylme/tä/än
3.p.sg.	kylmene/e	ei kylmene	kylmen/i	Ei kylmen/nyt	Kylmen/isi	Ei kylmet/ä
CG VAIET/A						
2.p.sg.	Vaikene/t	e/t vaikene	Vaiken/i/t	e/t vaien/nut	Vaiken/isi/n	Vaie/ta/an
3.p.sg.	Vaikene/e	ei vaikene	Vaiken/i	Ei vaien/nut	Vaiken/isi	Ei vaiet/a

Type I has only a vowel stem. The stem ends in a consonant + a short vowel (CV) in this type. It is the largest verb conjugation type, as the lexical frequency shows (look at Table 7.1). The type has a consonant gradation.

Type II has two stem variants: (a) a vowel stem that ends in VA, and (b) a consonant stem. Between these two alternations, there is a complex relationship: consonant *-t* at the end of the consonant stem alternates with *-a/-ä* in the vowel stem. The special conjugation happens because this verb type has undergone a change in the history of language; the verbs in this type are called *contracted verbs* (in Finnish *supistumaverbi*). Even though this inflection type is not the largest type, it is a productive verb type in Finnish. Productivity is based particularly on the formal similarity of the central verb forms present tense and past tense, as well as in

other forms, including a vowel stem. In the case of a consonant gradation, only a strong grade occurs in these central forms.

In this type, the past tense suffix is the restructured form *-si*. Historically, *-s* was not a part of the past tense suffix, but the boundary between morphemes seems to have changed, and *-s* has been restructured to belong to the past tense, not the stem (Karlsson 1983: 209). A longer morpheme variant is cognitively more salient than a shorter variant (Niemi 2006). Because of the marker *-si*, there are no vowel changes in the past tense in this conjugation type. In other inflectional types, vowel changes occur in stems before the past tense suffix *-i*, and they make the present tense and past tense stems dissimilar. Thus, there are many reasons this conjugation maintains its formal shape in the basic conjugation categories.

Type III has only one stem alternation, that is, a vowel stem. The stem ends in *VV*, a long vowel, or a diphthong. There are two groups of verbs that belong to this category, namely, verbs that have only one syllable, and verbs that have three syllables. The long variant is, to some degree, a productive variant. This type does not have a consonant gradation. The 3rd person does not have any suffix.

Type IV includes verbs that have both consonant and vowel stem alternations. The vowel stem ends with the vowel *-e*. Most verbs with *-e* stems belong to this group. This type does not have a consonant gradation in many subtypes, although there are exceptions.

Type V has quite a few verbs. These verbs also have *-e* at the end of the vowel stem, and in Karlsson (1983), these verbs actually are included in Type IV. Type V verbs, though, have some special features of their own, and it is usual to present this type as different type in pedagogical grammars. In the vowel stem, besides the vowel *-e*, the consonant *-s* makes this stem different from the consonant stem in the 1st infinitive.

Type VI has two stem alternations: (a) a vowel stem ending in *-e*, and (b) a consonant stem. Similar to Type V, there are only quite a few verbs in Type VI. So, this type could also be a subtype of IV.⁵⁴ Like verb Type V, this type has some special features. In the vowel stem, the consonant *-n* occurs instead of the consonant *-t* at the end of consonant stem. The verbs belonging to this type often are derivations from adjectives, and verbs belonging to this type can have a consonant gradation.

Not all consonants or clusters of consonants in Finnish take part in a consonant gradation. Table 7.3 presents the most frequent consonant gradation types in Finnish.

⁵⁴ This is because both inflection type V and VI have vowel *e* in present tense inflection, like verbs in inflection type IV. It is also possible to include these types in inflection type II, as actually was done in Hakulinen & al. (2004: 103-105). In the last case, the identification of the inflection type of these verbs is based on the 1. infinitive form, which ends in *-VtA* in types II, V and VI. So, these verbs have features that connect them to several other inflectional types of verbs.

Table 7.3

Most frequent consonant gradation types. In quantitative consonant gradation, there is an alternation between a long and a short consonant. In qualitative consonant gradation, there is an alternation between two different consonants, or between a consonant and zero. Strong variant = S, weak variant = W. Consonant gradation A) occurs in verb type I, in which a strong stem variant is to be found in 1st infinitive form and a weak stem variant for example in some of the personal forms. Consonant gradation B) occurs in verbs types II, IV, VI, in which a weak variant is to be found in the 1st infinitive, but a strong variant, for example, in all the personal forms. Percentages of consonant gradation types are taken from Karlsson (1983: 32).

Quantitative consonant gradation				
Gradation Type S:W	%	1. infinitive	1.p.sg	3.p.sg
tt:t	26	A) otta/a	Ota/n	otta/a
		B) ajatel/la	ajattele/n	ajattele/e
kk:k	9	A) nukku/a	nuku/n	nukku/u
		B) haka/ta	hakkaa/n	Hakkaa
pp:p	2	A) oppi/a	Opi/n	oppi/i
		B) hypät/ä	hyppää/n	Hyppää
Qualitative consonant gradation				
Gradation Type S-W	%	1. infinitive	1.p.sg	3.p.sg
T:d	29	A) tietä/ä	tiedä/n	tietä/ä
		B) suudel/la	suutele/n	suutele/e
K:0	12	A) luke/a	lue/n	luke/e
		B) vaiet/a	vaikene/n	vaikene/e
nt:nn	12	A) anta/a	anna/n	anta/a
		B) suunnat/a	suuntaa/n	suuntaa
P:v	3	A) saapu/a	Saavu/n	saapu/u
		B) tavat/a	Tapaa/n	tapaa
rt:rr	3	A) kerto/o	kerro/n	kerto/o
		B)kerrat/a	Kertaa/n	kertaa

According to Karlsson (1983), quantitative consonant gradation is still productive in Finnish. Loan words and other new words may have consonant gradations. Qualitative consonant gradation has lost its productivity in comparison to quantitative consonant gradation. Loans and other new words do not usually have qualitative consonant gradation, although they include consonants that otherwise participate in a consonant gradation (Karlsson 1983: 329-330). A new loan verb does not have a consonant gradation necessarily. For example, *petata*: *petaa* is a loan from the Swedish *bedda*, ‘make a bed,’ and does not include a consonant gradation (Karlsson 1982: 329), even though it is also possible to conjugate this verb using a consonant gradation: *pedata*: *petaa*.

7.1.6. Finnish verbs in child language, multilingual settings, and psycholinguistic tests

On the basis of child language acquisition research, Laalo (1998) concluded that children mix up verbs that belong to different inflectional types. Nevertheless, this mix-up is not random. Children seem to confuse verbs in inflectional Types I and II.⁵⁵ Sometimes, a verb in inflectional type I is conjugated like one in Type II; sometimes, it occurs the other way round. The inflectional Type I is the largest one, but Type II is the most productive (see Karlsson 1983: 213-214). Sometimes, children conjugate verbs in other inflectional types according to Type I or Type II. Conjugation Types I and II are not conjugated according to the other inflectional types. So, the smaller and less productive inflectional types seem to move toward the largest and the most productive inflectional types (Laalo 1998: 362-371).

The same tendency has been noticed in multilingual environments. Lindgren (1993) analyzed material from Kven, a variant related to Finnish that is spoken in northern Norway. Also in Kven, verbs from the basic verb type (= Type I) and the verb type called ‘contracted’ which is the same as verb Type II; (look at descriptions of verb types after Table 7.2) are mixed with each other; the other conjugation types move into Type I (Lindgren 1993: 241-242; 1999: 154-155). So, the mixing of paradigms in a language contact situation has parallels to the findings regarding child language in Finnish.

The mixing of paradigms is also found in Finnish dialects and in oral Finnish in the area around Helsinki. The 1st-infinitive forms from inflection Type II are in these variants, which are conjugated as 1st infinitives in inflectional Type I, for example, *vastaa* instead of *vastata*, ‘to answer’ (Itkonen, T. 1965: 189; Karlsson 1983: 209). In Finnish dialects, there are other examples of mixed verb inflectional types. In particular, the past tense form of the verb Type II, which includes the suffix *-si*, seems to cause also verbs from other conjugation types than Type II to be conjugated according this conjugation type in the past tense. This is usual in some southwestern dialects of Finnish, where this past tense form has overtaken the original past tense, which only includes the morpheme *-i* (Karlsson 1983: 303). In comparison, there are also examples of the opposite case, in which the *-si* element has given way to the *-i* element and past tense forms of contracted verbs are formed using the suffix *-i*, such as *vasta(i)* instead of *vastasi*. In a dialect area with contact with Swedish, the distinction between contracted verbs (Type II) and verbs that include original bisyllabic vocalic stems (Type I) has been lost. Terho Itkonen explained this as the result of bilingualism (1965: 189-190). Central to the network of these two inflectional types is the 3rd-person singular form because it is similar in both inflectional types.

Mixed paradigms can be understood as language internal morphological naturalness. This is the explanation that Lindgren used when discussing the mixing paradigms in a language contact situation (1993; 1998). Because mixed paradigms have parallel tendencies in other contexts, for example, in child language acquisition, in oral Finnish, and in dialect variants, this suggests that such tendencies are manifestations of language internal morphological naturalness in Finnish.

⁵⁵ The inflectional types of verbs presented by Karlsson are also used by Laalo (1998: 364) and Riionheimo (2002: 260) in their analyses of child language in some modified form.

Verb type II is described as the most productive of all paradigmatic verb types in Finnish. For example, new verbs borrowed from other languages into Finnish are conjugated according to Type II. The paradigmatic shape of this verb type does not include as many variations as are included in other types (Karlsson 1983: 213); therefore, verb Type II can be analyzed to form an *open schema* in Finnish. Regular inflections provides open schema because they do not include phonological restrictions, so they are productive (See Bybee 1995: 435; Croft & Cruse 2004: 299-300). Still, Type I, the largest type, is used as the basis of analogical forms in child language, in language contact situation, and in dialects and oral Finnish. This means that type frequency is also the basis for productivity, as suggested by Bybee (1995: 426).

When explaining language change phenomena in Kven, Lindgren used all three models of morphology: WP, IA, and IP. She pointed out that because there are many types of phenomena in language, different kind of explanations must be used. Lindgren explained the language change in Kven dialects by analogy. According to her, paradigms represent field phenomena in language, so they cannot be explained by rules using the IP model, but the IA model explains the paradigmatic phenomena. Changes in paradigm can be explained using associative links. Analogical changes follow the principles of naturalness: iconicity, transparency, and uniformity. Verbs that belong to specific and little inflectional types follow the conjugation of a larger type; this increases the naturalness in morphology (Lindgren 1993: 238-243; 1999: 153-161). These explanations correspond to those in usage-based models where product-oriented schema is used to explain the analogical relationship between words in paradigms.

Bybee suggested that whole words are stored in the mental lexicon (2003: 109). Even larger constructions can be stored if they are very frequent, for example, formulaic expressions such as 'I don't know' (op. cit. 157). Finnish is a language with a rich morphology, so the question of which lexical elements are stored in Finnish has been interesting for psycholinguistics.

The stem allomorph/inflectional decomposition (SAID) model is a psycholinguistic processing model of Finnish morphology. This model suggests that there is an allomorphic representation of noun stems in the mental lexicon of Finnish mother tongue speakers. According to the model, Finnish nouns are composed from stems and affixes in word production, except for the most frequent inflected noun forms which are stored as whole words. Stem allomorphs seem to be represented in the mental lexicon (Niemi & Laine & Tuominen 1994). In addition, the findings of Hokkanen, based on slips-of-the-tongue data, demonstrated that polymorphemic words in Finnish are composed from stems and affixes, and are not holistically stored in the mental lexicon; his results were in accordance with the results of the SAID model (Hokkanen 2001: 195). So, the allomorphic representation of stems, which is found in psycholinguistic studies, seems to support that paradigms are important in mastering Finnish morphology.

The following sections explain how the informants conjugated and identified different verb forms in the elicited tasks, and which verb forms they produced in the oral and written tasks. Section 7.2 presents the results from the verb identification task, Section 7.3 from the oral inflection task, and Section 7.4 from the multiple-choice task. Section 7.5 presents the

conjugation of verbs in the oral tasks and in the essays. Finally, Section 7.6 summarizes the results of chapter 7.

Errors made in the conjugation of verbs in the morphosyntactic categories of person, tense, and modus in affirmative and negative forms were analyzed. In addition, morphophonological errors of verb stems were analyzed in different inflectional types. There were production errors in the oral inflection tasks, the oral tasks, and the essays. Errors in the multiple-choice task occurred when the informants evaluated the correctness of Finnish forms. I will discuss the errors as well as the correlation between inflection types of verbs and correctness of production/identification of a verb form. What was problematic for the informants when they conjugated Finnish verbs? Did the inflection type influence how correctly the informants were able to conjugate the verbs? What was the role of paradigm concerning how the informants mastered conjugation in the tasks?

I will also look at which forms of verbs my informants used in Finnish. I gathered all of the verb forms in the orals and the essays, and the production in these tasks is presented in Section 7.5. Besides these tasks, I also will analyze the verb identification task in Section 7.2, and I will see if the informants chose some of the verb forms in this task more often than other forms. In addition, the correlation between correct choices and inflection type is presented.

7.2. Verb identification task and conjugation forms of verb

In this section, I will discuss how the informants identified different forms of real verbs in the verb identification task. (see Section 4.2. and Appendix 3). First, I will explain how the conjugation categories that occurred in the task were identified; afterwards, I will explain how verbs belonging to different inflection types were identified. Table 7.4 presents the percentages of correct identifications of real Finnish verbs in the task.

Table 7.4

Percentages of real verb forms identified correctly in verb identification task of bilinguals (BL) and classroom learners (L2). Verb forms were 1st infinitive, 1st-person singular (= 1.p.sg.); 3rd-person singular (= 3.p.sg.); 3rd-person plural negative form (= 3.p.pl. neg). When the 1st-infinitive form and the 3rd-person singular form were similar, the verb form was analyzed as a 3rd-person singular form because this is considered to be the basic verb form in Finnish (Karlsson 1983: 208).

	1. infinitive	1.p.sg.	3.p.sg.	3.p.pl.neg.
BL	90	94	96	92
L2	65	69	67	63

Table 7.4 shows that the informants identified some 1st-infinitive forms and negative 3rd-person plural forms less often than the two other forms. The classroom learners identified the 1st-person singular forms the most often, even though the 3rd-person singular is the most frequent form in Finnish and the stem variant (strong vowel stem) in this verb form is regarded as the basic form (Karlsson 1983: 208). However, the table shows that the form of

the verb did not have any remarkable effect on how the informants were able to identify the verbs.

The real verb forms that were correctly chosen by the informants are analyzed according to which verb inflection type these verbs belong to in Figure 7.1, which presents only the percentages. Appendix 18 presents the number of correct choices of each inflectional type.

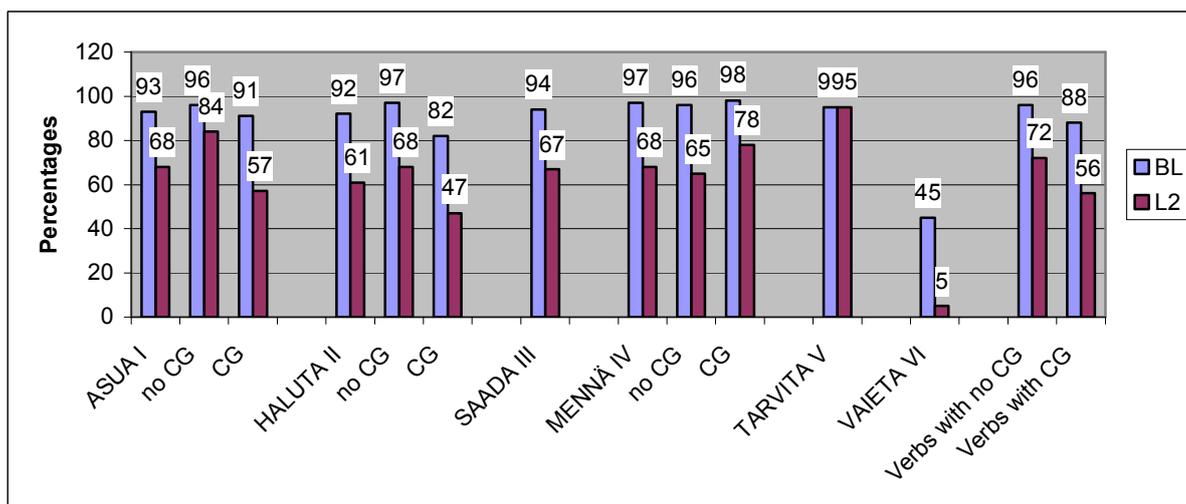


Figure 7.1. Percentages of real Finnish verb forms that informants chose correctly in verb identification task with regard to inflectional type (I-VI) in bilinguals (BL) and classroom learners (L2).

The figure shows the percentages of correct identifications of the whole inflectional type, as well as the correct identification of verbs with no consonant gradation (no CG) and verbs with a consonant gradation (CG). There is only one verb in the tasks that belonged to Type VI; this was a verb with a consonant gradation.

In Section 5.5, I showed that the informants were able to identify the frequent verbs better than the non-frequent verbs. Figure 7.1 demonstrates that the informants were able to identify a higher percentage of verbs that did not include a consonant gradation when compared to the verb forms that did. Therefore, not only frequency (see Figure 5.12) but also the complexity of the verb inflection (many stem alternations) was the reason for the problems that the informants had in this task. Many stem alternations mean that one lexical meaning is expressed using many forms and, therefore, is a deviation from the one-to-one principle. This principle is important to explain learning in child language and in a second language (Slobin 1979: 188; Andersen 1990: 51; 1993).

Verb Type IV, however, was an exception. In this inflectional type, there was actually one verb with consonant gradation that was identified by all the informants: the verb *ajatella*, ‘to think.’ This indicated that this particular verb was a verb that even the classroom learners knew well.

The informants had the most difficulty identifying verb forms belonging to Type VI. Because there was only one verb of this type in the task, one may ask if the problem of identifying this verb was caused by a complicated inflectional type (see Table 7.2.) or if it was because the informants did not know this verb.

A list of real Finnish verbs arranged according to how the verbs were identified in the verb identification task by the informants is presented in Appendix 17. This list does not indicate which forms of verbs the informants identified, but all forms of a special verb not identified by the informants were counted together. I refer to this list when I discuss the correlation between the knowledge of a verb and the knowledge of inflection of a verb in the following sections. Besides the verb identification task, I also will look at the production of the informants, especially in the oral tasks, which was presented in chapter 6.

7.3. Oral inflection task

7.3.1. Presentation of oral inflection task

In the oral inflection tasks (see Section 4.3 and Appendix 4), the priming form, or the verb form that was given in the task, was the 1st infinitive, and the informants conjugated the verb in the present tense in the active voice. The 1st-infinitive form is not considered the psycholinguistic basic form of Finnish verbs (see the discussion in Section 7.2; and in Karlsson 1983: 207-208). On the other hand, the 1st infinitive is the form that differentiates inflectional types of verbs in Finnish. These inflectional types are presented using the infinitive form as the starting form, usually both in pedagogic grammars and in language classrooms. Learners of Finnish have to use the infinitive form as the starting point in verb conjugation, when they use a dictionary in Finnish, or when they complete grammar exercises. So, using the 1st-infinitive form as the starting form followed the tradition of grammar description and even the tradition of teaching Finnish to language learners.

There were 58 verb forms and 47 different verbs in the oral inflection task. The target was to produce 40 affirmative forms, 9 question forms, and 9 negative forms; one of these was a negative question form. Table 7.5 presents the numbers of verbs in the task. The verbs are arranged according to inflectional type.

Table 7.5

Number of verbs of different inflectional types in oral inflection task. The percentages of the different verb types in the tasks are compared to the lexical frequency of the verb inflectional types presented in Karlsson (1983: 212-214).

	I. infinitive	Affirmative forms	Negative forms	Affirmative questions	Negative questions	Total	%	Lexical frequency % (Karlsson)
I	ASUA	17	5	3	1	26	45	58
II	HALUTA	9	2	3	0	14	24	11
III	SAADA	3	1	1	0	5	9	7
IV	MENNÄ	8	1	2	0	11	19	24
V	TARVITA	2	0	0	0	2	3	
Total		39	9	9	1	58	100	100

The presentation of the inflectional types in the oral inflection task in Table 7.5 is based on Karlsson's inflectional types (1983: 212-214; 1999: 58-60), even though in Karlsson's presentation (1983), conjugation Type V is included in conjugation Type IV. Type VI did not occur in the oral inflection task at all. The lexical frequency of this type is low, with only 1% of lexical verbs belonging to it (Karlsson 1983: 214). The verbs *nähdä*, 'to see,' and *tehdä*, 'to make,' were counted in Type IV in the oral inflection task, as in Karlsson (1983: 214), because the stem vowel of these verbs is *e*, like in Type IV, even though the infinitive ending is the same as in Type III.

As the table shows, the textual frequencies in the oral inflection task followed the lexical frequencies presented in Karlsson (1983) to some degree. In the oral inflection task, the largest inflectional Type I, had a lower percentage compared to the percentage of lexical frequencies presented in Karlsson (op.cit). On the other hand, inflectional Type II had a higher percentage in the task compared to the lexical frequencies presented by Karlsson (op.cit). Actually, Karlsson pointed out that inflectional Type II is more important than its lexical frequency demonstrates (1983: 213). In inflectional Type I, there were mostly two-syllable verbs, but also some three-syllable verbs. In inflectional Type II, both two- and three-syllable verbs were used in the tasks. In inflectional Type III, there were mostly one-syllable verbs, but also one three-syllable verb (*epäröidä*). In Type IV, there were two-syllable verbs and verbs of many syllables in the verb inflection task.

Problems arose in the analysis of this task. The classroom learners in particular produced many different forms quite often. Sometimes, the verb was correct in the first place, but immediately afterwards, the verb was an incorrect variant. Sometimes, the classroom learners inflected the verb incorrectly, but then they corrected it. Which one do I to choose, then? I concluded that the informants were able to master the inflection of a verb form if they had produced the correct form, even though they may have changed a correct form they produced first to an incorrect one afterwards.

In Section 7.3.2., I explain how the informants conjugated the verbs that belonged to the different inflectional verb types, and I compare the number of correct stems produced in the informant groups. In Sections 7.3.3, and 7.3.4, I present the errors that the informants made in this task.

7.3.2. Correct use of verb stems

To demonstrate how the verb stem type influenced the mastering of conjugation, I divided the verbs in the verb inflection tasks into two basic categories: (1) verbs that did not have a consonant gradation (Group A), and (2) verbs with a consonant gradation (Group B). Group A and Group B were divided further into Aa) and Ba) verbs, in which the priming stem and the result stem were identical, and Ab) and Bb) verbs, in which the priming stem and the result stem were different. The priming stem functioned as a starting point for inflection; the result stem was the stem that the informants used when they conjugated the verb. In this task, the priming stem was always an infinitive stem, and the result stem was an inflectional stem in the present tense. I also divided the verbs into subgroups according to verb types because the verb type correlated with the different stem alternatives.

Group Ab included verbs that belonged to Type II and Type IV because the infinitive stem and the inflectional stem are not identical in these verb types; therefore, the priming stem and the result stem were different. In Group B (verbs with a consonant gradation), Ba included verbs whose infinitive stem and inflectional stem had the same grade; in other words, a verb in Type I which was inflected in the 3rd person. So, the priming stem and the result stem were identical in this group. In Group Bb, there were verbs whose priming stems and result stems had different grades; usually a strong infinitive stem changed to a weak stem, but in some conjugation types, a weak infinitive stem changed to a strong one. Appendix 19 presents the individual verbs that belonged to the different subgroups.

I will present only the affirmative and question forms in this section because negative verb forms are different from affirmative forms in Finnish (look at Section 6.2). The 1st-person plural form was always eliminated from the analysis when the 1st-person plural form in the active voice did not have the same stem as the passive form, which was often used as the 1st-person plural by the informants. Because there are many variants of the verb *tarvita*, ‘to need,’ in oral Finnish, I did not count this verb either when I compared the correct stems that informants produced in the oral inflection task. All forms that I eliminated can be seen in Appendix 19.

I counted the number of informants who inflected the verb correctly, and then I counted the percentage of correct answers out of all possible answers in each verb group. Because the informants sometimes produced the correct inflectional stems, even though they did not inflect the verbs in the correct person, I did not take into account the errors made with personal endings in the analysis. In the next section, when I present the errors of the informants, I include the number of cases when the informants used incorrect personal

endings. I also accepted a yes/no question with a correct stem, whether or not this form included the obligatory question particle *-ko/kö*, as a correct use of the verb stem.

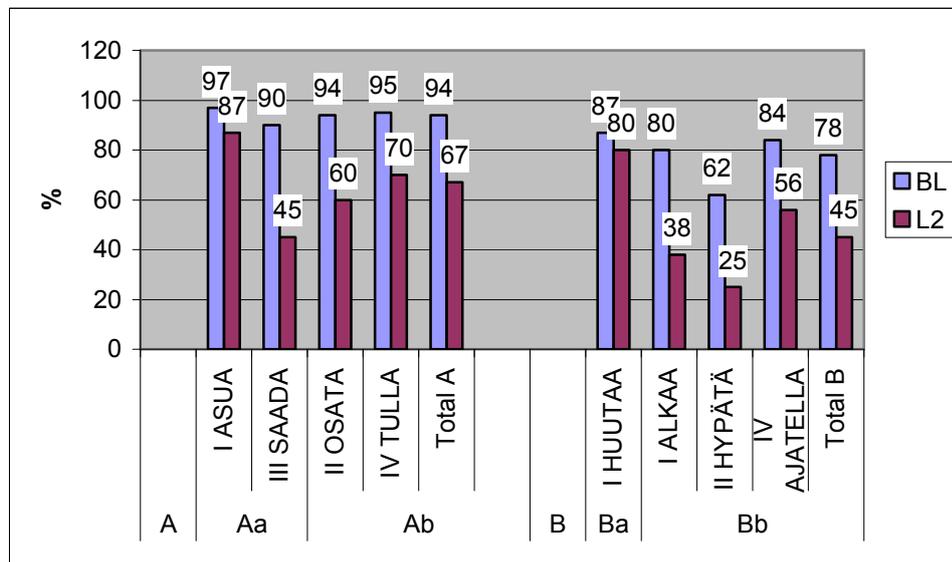


Figure 7.2. Correct stem alternatives given by bilinguals (BL) and classroom learners (L2) in oral inflection task. The figure gives the percentages of correct answers of all answers of verbs belonging to a subgroup. Verb groups were A) verbs with no consonant gradation; B) verbs with a consonant gradation. In groups Aa) and Ba), the priming stem (= infinitive stem) was the same as result stem (=inflectional stem); in groups Ab) and Bb) priming stem was not the same as result stem. The verbs were also grouped according to the verb inflectional type (I, II, III, IV).

Figure 7.2 shows that the complexity of the stem had an effect on mastering inflection. Group A verbs, which did not include those with a consonant gradation, were inflected better than the verbs in group B that did include a consonant gradation. Still, the verbs belonging to Type III verbs in Group Aa were quite often inflected incorrectly, especially by the classroom learners, even though these verbs did not include two stem variants. Actually, the verbs in inflection Type IV that included a consonant gradation were inflected better than the verbs in inflection Type III in the group of classroom learners. It seemed that not all the problems in inflection were related to the consonant gradation. Why this inflection type, which at first looked very simple, created problems for the classroom learners is discussed later in this paper.

In Group Ba, both groups produced a lower percentage of correct answers than in Group Aa, where no consonant gradation occurred, though the priming stem was identical with the result stem in Group Ba, precisely as it was in Group Aa, that is, the verb type without a consonant gradation. It seemed that the consonant gradation increased the number of stems and, consequently, the possibility of errors. Many stems connected to one verb complicated the conjugations process, because the one to one principle was deviated, as already pointed out (see Slobin 1979:188; Andersen 1990: 52).

One of the bilingual informants actually chose the weak, incorrect alternative of the verb *lukea: luevat*. Because the strong stem variant is supposed to be the basic form (Karlsson 1983), and the priming form included this strong stem alternative, this error is difficult to explain using source-oriented schema from basic form to inflected form; rather, one explanation is that both the strong and weak stem alternatives are stored in the mental lexicon, so this error is a piece of evidence of an allomorphic representation (see Paunonen 1983 [1976]; Niemi & Laine & Tuominen 1994; Hokkanen 2001: 195.)

In Group Bb, the informants had the most problems with Type II verbs, that is, contracted verbs that had a consonant gradation. One verb in particular (*koota*, look at Appendix 19) had a low percentage of correct answers. How the informants conjugated this special verb is presented more closely in the next section.

7.3.3. Errors in affirmative conjugation

I classified errors in affirmative conjugation into four groups, and the number of errors in these groups is presented in Table 7.6. Besides the affirmative verb forms, the verbs that occurred in yes/no questions also are counted in Table 7.6 because the only difference in their forms lies in the question particle. This means that the informants conjugated 49 verbs. The use of the question particle is presented in the next section.

Table 7.6

Numbers of errors made in affirmative conjugation in oral inflection task of bilinguals (BL) and classroom learners (CL)

BL	BL						L2					
	Anna	Kalle	Mari	Pekka	Tiina	Total	Berit	Elin	Rita	Siri	Vivi	Total
Error type 1												
Incorrect personal												
Suffix	1	0	0	0	0	1	3	10	3	3	3	22
Error type 2												
Gradation error	4	2	7	2	0	15	6	4	10	6	4	30
Other stem error	1	2	0	1	0	4	0	6	2	4	5	17
Error type 3												
1. infinitive used	2	0	0	0	0	2	0	4	1	1	5	11
1. infinitive + personal suffix used	6	0	0	0	0	6	1	11	7	3	16	38
Error type 4												
No response	1	0	0	0	1	2	0	1	1	1	0	3
Incorrect verb used	2	1	0	0	1	4	1	3	0	0	0	4
Other expression	0	0	0	0	1	1	0	0	0	0	0	0
Total errors	17	5	7	3	3	35	11	39	24	18	33	125

Error Type 1 collected conjugation errors, where the informant had problems finding the correct personal suffix. Errors of stem formation belonged to error Type 2. Stem errors were errors of gradation quite often, but other errors producing the correct stem occurred. Error type 3 presented errors where the informant repeated the priming form (= 1st-infinitive form) or added a personal suffix directly to the 1st-infinitive form, which meant that the informant was not aware that the 1st-infinitive form includes both stem and suffix. Repetition of the infinitive form was not counted as an error of personal form, although the person was not given at all in such an answer. Finally, error Type 4 comprised cases where the informant conjugated a verb that was not given as a priming verb or the informant gave some other response instead of inflecting the priming verb. Cases where the informant did not produce anything belong to Type 4. In such a situation, the informant often commented that she/he was not able to conjugate this particular verb in the task.

The bilinguals had only one error in error Type 1, in contrast to the classroom learners, all of whom had some problems choosing the correct personal suffix. Error Type 2 is the category where the bilinguals made more errors in comparison to all other categories. The classroom

learners also had a number of problems with the verb stems, but they made even more Type 3 errors. They often only repeated the priming form or used the connection of the 1st infinitive + 1st infinitive suffix + personal suffix. Only one bilingual made errors of this kind.

Following are descriptions and examples of the error types.

Error type 1:

Four of the classroom learners were able to conjugate the verb correctly in the person most often, and there was only one classroom learner in particular who had problems producing the correct personal suffix often, although the person category was clearly given in the sentences.

There are factors that facilitate the learning of personal suffixes in Finnish. The connections between form and meaning are consistent (the one-to-one principle; see Slobin 1979; Andersen 1990; 1993); the only exception being the 1st-person plural with two alternatives. Only one of these two possibilities of the 1st-person plural in Finnish, however, is presented in the textbooks of Slotte (1987, 1991). In addition, suffixes are found to be perceptually salient, as one of the operating principles presented by Slobin suggested (1979: 108 – 110). In the oral inflection task, the personal pronoun was used in the text in most cases, so the problem in finding the correct personal suffix involved making the correct pairing between meaning and form.

Sometimes, the problem was incorrect syntactic analysis by the informant, as in the following example, where the verb *istua* was conjugated in the 2nd-person singular instead of the 3rd-person singular by the informant, although the subject (Sirkka) of this verb actually occurred right before the priming form in the tasks. Apparently, the reason was that the subject pronoun *sinä*, ‘you,’ in the main sentence also was considered the subject in the subordinate clause. The infinitive form was given in brackets in the task, and the form that the informant used is underlined (example 237).

- 237) Berit, nähdän... nähdäkö (nähdä) sinä, että Sirkka istut (istua) tuolla penkillä. (target: näetkö, istuu) (Elin, L2)
Berit, see+INF1+SG1 see+INF1+Q you that Sirkka sit+SG2 that+ADE bench+ADE. ‘Berit, do you see that Sirkka is sitting on that bench.

Table 7.7 shows the personal forms that were used incorrectly, instead of some other form, in the production of the classroom learners.

Table 7.7

Personal forms incorrectly used to substitute some other personal form in the production of classroom learners in oral inflection task

	1.p.sg.	2.p.sg.	3.p.sg.	1.p.pl.	2.p.pl.	3.p.pl.	Total
Berit	1					2	3
Elin	4	1	2	1	1	1	10
Rita	1	1	1				3
Siri			2			1	3
Vivi		1	1			1	3
Total	6	3	6	1	1	5	22

Table 7.7 demonstrates that all of the personal forms could have substituted some other personal form, though the forms that were used the most often were the 1st- person singular and the 3rd- person singular. The 1st-person singular was used the most often by only 1 of the informants, but the 3rd-person plural also was used quite often. This form was always used instead of the 2nd-person singular form. The reason may be that both the 2nd-person singular and the 3rd-person plural forms end in the same consonant, *-t*, which caused the confusion.

Error type 2:

Producing the correct stem was difficult for both informant groups. As in earlier studies in child language acquisition, in the production of the L2 learners and in slips of the tongue of Finnish adults, the informants made errors, especially with stems (Martin 1995: 151). Table 7.8 shows the errors made in a consonant gradation.

Table 7.8

Errors in consonant gradation in oral inflection task of bilinguals (BL) and classroom learners (L2). Total number of cases is the number of verbs, including the gradation type in the task counted by the number of informants in the group

Quantitative consonant gradation					
	Total number of cases	Errors		%	
		BL	BL	L2	L2
tt : t	25	3	12	1	4
kk : k	15	1	6,7	0	0
pp : p	10	1	10	2	20
Total	50	5	10	3	6
Qualitative consonant gradation					
t : d	15	0	0	3	20
k : 0	30	6	20	10	33
p : v	10	2	20	6	60
nt : nn	10	2	20	6	60
rt : rr	5	0	0	2	20
Total	70	10	14	27	39

The qualitative consonant gradation also was problematic for both groups than the quantitative one was, as Table 7.8 demonstrates. The bilinguals did not have any problems with the alternation *t:d*, which is a frequent alternation. Alternation *p:v* was as difficult as alternation *nt:nn* in both informant groups; however, the alternation *p:v* occurred only as a B-type alternation in the task. The informants made more errors in B-type consonant gradation because the priming verb (1st infinitive) included a weak alternation.

In both groups, the alternation *k: zero* was the type of consonant gradation where the informants often made mistakes. Still, the percentages of this error type were not higher than the percentages of errors in some other qualitative gradations types. However, the verb *koota : kokoan*, ‘to gather : I gather,’ seemed especially difficult to conjugate. This verb belongs to conjugation Type II, which has consonant gradation Type B. In the case where *k* alternates with zero, the 1st-infinitive form has the weak stem variant with zero in contrast to all personal forms in the active voice that have strong stems with consonant *-k* (look at Table 7.2, verb Type II). All of the informants who conjugated this verb suggested the form *koon*, which include a weak stem variant, the same as in the infinitive form. Actually, many informants did not conjugate this verb at all either because they used the infinitive form or they conjugated some other verb; therefore, their errors were not counted as consonant gradation errors in Table 7.8.

In Martin (1995), quantitative consonant gradation and alternation *t:d* and *p:v* of the qualitative consonant gradation were the easiest types for the informants. Alternations where combinations of two consonants were in gradation were the next easiest types, and the most difficult type was gradation *k: zero*. The alternation *k: zero* was difficult because it changes the shape of word more than the other alternatives do (see op. cit. 101, 126). The same fact also explained why qualitative consonant gradation is more difficult than quantitative, but the frequency of the consonant gradation type also seemed to explain why one of these types (*t:d*) was better mastered compared to other types. According to Bybee, the lexical connections are both phonological and semantic (1985; 2001: 22). Usually, the same meaning keeps the different stems together in a paradigm and overrides the divergence of form (Bybee 2003: 98). However, the problems conjugating the verb *koota* demonstrated that stems with large phonological differences were not easy to keep together by the bilinguals either.

The classroom learners seemed to know especially well how to conjugate verbs in verb Type IV, which include the B-type of consonant gradation type *tt:t*, as in verbs *ajatella*, ‘to think’; *ihmetellä*, ‘to wonder’; and *jutella*, ‘to talk,’ which all occurred in the task. Still, the number of errors in a consonant gradation did not directly explain how the classroom learners managed a consonant gradation. In many cases, the classroom learners did not conjugate the verbs at all; rather, they used an infinitive form or an infinitive form followed by a personal ending.

A strong form was incorrectly chosen more often in comparison to the weak form in both informant groups. Such generalizations of strong form were the following examples: *alkamme* pro *alamme*, ‘we start’; *lukemme* pro *luemme*, ‘we read’; and *kertotte* pro *kerrotte*, ‘you (pl) tell.’ There were also generalisations of weak form, for example, *tava(a)mme* pro *tapaamme*, ‘we meet’; *luevat* pro *lukevat*, ‘they read’; and *koon* pro *kokoan*, ‘I gather.’ When the informants produced an incorrect consonant gradation form, they most often produced the grade found in the 1st infinitive, the priming form. So, a priming effect was clear in errors with the consonant gradation. There was only one example where the incorrect consonant gradation alternation was not the same as in the priming form: the form *luevat*, because the 1st infinitive is *lukea*.

Beside errors in consonant gradation, the informants also made other types of stem errors. The examples are presented in Table 7.9.

Table 7.9

Mixed paradigms in oral inflection task (bilinguals)

Error made by informant	Target form	Verb type of error form	Analogic modell form	Verb type of analogic form
1) me alataan (Kalle)	aletaan	Type I, <i>alkaa</i>	halataan	Type II (<i>halata</i>)
2) pojat meluttaa (Kalle)	Meluaa	Type II, <i>meluta</i>	odottaa	Type I (<i>odottaa</i>)
3) me tavatetaan (Anna)	Tavataan	Type II, <i>tavata</i>	odotetaan (oral form)	Type I (<i>odottaa</i>)
4) sinä tarviat (Pekka)	Tarvitset	Type V, <i>tarvita</i>	Haluat	Type II (<i>haluta</i>)

Verb-conjugating paradigms that were mixed by the informants were conjugation Types I and II, the largest and the most productive paradigm (see Karlsson 1983). Examples of such mixing paradigms were the forms presented in Table 7.9. Verbs of Type I *alkaa* (example 1) were conjugated in the passive present, like verbs belonging to conjugation Type II as an analogical model. Verbs of Type II *meluta* (example 2) and *tavata* (example 3) were conjugated using verbs of Type I as an analogic model or as product-oriented schema (see Bybee 2003: 126; Croft & Cruse 2004: 301). Even though I present an analogical model verb in Table 7.9, I do not refer to only one verb form as a model for mixing; rather, I refer to the verb type that functions as a schema for analogical forms.

Only one verb in this task belonged to the conjugation Type V. This verb was *tarvita*, ‘to need,’ and the informants were expected to produce present tense forms in the 1st and 2nd persons. This verb is quite often conjugated in spoken Finnish in a similar way to verbs in conjugation Type II: *haluta: minä haluun; tarvita: minä tarviin*. The bilinguals conjugated this verb in the following way: *tarvitset; tarvit, tarviat*. The form *tarvit* was not counted as an error because a short vowel is also used in oral Finnish in some dialect areas,⁵⁶ but I considered the form *tarviat* an example of mixing paradigm as well as an error because this form is not common in oral Finnish. In this case, a verb in Type V was inflected as a verb in Type II (see example 4 in Table 7.9).

The stem errors in Table 7.9 demonstrated that the bilinguals mixed the verb paradigms I and II in the same way as Finnish children do (Laalo 1998: 362-371). These verb paradigms were also mixed in multilingual environments (Lindgren 1993: 241-242). In these examples, both verb Type I and verb Type II were used as product-oriented schema for conjugation (see Bybee 2003: 126; Croft & Cruse 2004: 301). Verb Type II is described as a productive verb type in Finnish because it does not include as many variations as the other paradigmatic types of verbs (Karlsson 1983: 213). Still, not only an open schema (meaning an inflectional type not including variation; see Bybee 1995; Croft & Cruse 2004: 299-300) but also the most

⁵⁶ Comment from Sirkkä Latomaa.

frequent verb type in Finnish, verb Type I seemed to be used when these analogical forms were created. Verbs like *odottaa*, presented as an example of the verb Type I, is the largest subtype inside the Type I verbs; most Finnish verb lexemes are included in this subtype of Type I verbs (Hakulinen & al. 2004: 105.) Therefore, type frequency also explained the analogical forms of the bilinguals. According to Bybee (2001: 119), type frequency is important to productivity because novel formations, like those analogical errors presented in Table 7.9, are formed on the basis of type frequency (see op. cit. 13).

The classroom learners also made other stem errors besides consonant gradation errors. Such errors were, for example, the shortening of stems. The verb *palella*, ‘to freeze,’ for example, was conjugated as *minä palen*, ‘I freeze’ (target form *palelen*), by Elin, Rita, and Siri; the verb *jutella*, ‘to talk,’ was conjugated *me jutemme*, ‘we talk’ (target form *juttelemme*), by Elin. The stem was shorter because one syllable was missing. Three-syllable words become two-syllable words also in child language (e.g., Räsänen 1975: 256). Still, Räsänen’s examples were nouns, not verbs. In addition, the shortened verb forms represented a mixing of paradigms because these three-syllable verbs were conjugated as two-syllable verbs, and the analogic model seemed to be common and frequent in the verbs *menen*, ‘I go,’ or *tulen*, ‘I come.’ The mixing happened in the same paradigmatic verb type in these examples.

Errors like *tavatme* (target form *tapaamme*) ‘we meet’ (Elin) and *vitaa* (target form *vihaan*) ‘I hate’ (1st infinitive *vihata*, Elin) were classified as stem errors. In the first example, the consonant stem *tavat-* of the verb was used. In the second example, the ending of the infinitive *-ta* seemed to be included in the form produced by Elin; besides that, the stem also lost one syllable. The form *tarviatat* (target form *tarvitset*) ‘you need’ (Vivi) included a 1st-infinitive ending *-ta*, but the verb was first conjugated according the conjugation Type II (in the same way as Pekka did; look at example 4 in Table 7.9). In the form *leikkiivät* (target form *leikkivät*) ‘they play’ (Siri), the verb was first conjugated in the 3rd-person singular, and the 3rd-person plural ending was added to this stem. It was possible that the form *leikkii-* was analysed as a stem. Similar forms of the 3rd-person plural occur in Kven but also in Finnish dialects (Lindgren 1993: 97-98). Forms including more than one suffix are used to provide evidence that a word and suffix is stored as an unanalysed entity in memory and that words are the entities that are stored (Bybee 1985: 76).

Vivi produced some forms that showed that she confused inflectional types. She produced such forms as *arvatten pro arvaan*, ‘I guess’; *pakkaten pro pakkaan*, ‘I pack’; and *tarviten pro tarvitsen*, ‘I need.’ These forms were produced possibly on the basis of the verb *ajattelen*, ‘I think,’ the verb that Vivi conjugated correctly before these other forms. The verb *ajatella* seemed to be a verb that Vivi knew. For example, in the verb identification task, she chose all forms of this verb as Finnish verb forms; however, she did not use this verb in her own production. *Ajatella* is a verb of conjugation Type IV, so in this case, the analogic model was not a verb of Type I or II, the largest and the most productive conjugation type, but a verb that belonged to conjugation Type IV.

Some of the forms produced by the classroom learners were difficult to explain. Such forms included *koton* (target form *kokoan*) ‘I gather’ (1st infinitive *koota*; Elin and Siri) and *patkan*

(target form) *pakkaan* ‘I pack’ (1st infinitive *pakata*,; Elin). Perhaps the informants incorrectly thought that there was a consonant gradation in Finnish where *t* alternates with zero in the first of these example (*koota: minä koton?*); in the second case, the informant eventually thought that there was a consonant gradation *tk: k* in Finnish, and conjugated *pakata: minä patkan*. However, such an alternation does not exist in Finnish. Elin produced a special form *hymppäältkö* (target form *hymyiletkö*) ‘do you smile?’ This form also may have included an incorrect consonant gradation, where *mpp* alternates with *m*. Another explanation could be that Elin confused the verb *hymyillä*, ‘to smile,’ with the verb *hypätä*, ‘to jump,’ because the verb *hypätä* occurred just before the verb *hymyillä* in the tasks.

Error type 3:

The most frequent error among the classroom learners was that the informants only repeated the priming form, the 1st infinitive, or they added a personal ending to that form. This second type of error demonstrated that the informants did not recognize that the infinitive form includes both a stem and an ending. Kaivapalu (2005: 266) pointed out that the segmentation of a word to stem and affixes always seems unclear to L2 learners.

The classroom learners produced such forms as *minä kysyän* (target form *kysyn*) ‘I ask’ (Vivi); *me oppiamme* (target form *opimme*) ‘we learn’ (Elin, Vivi); and *me tunteamme* (target form *tuntemme*) ‘we know’ (Vivi). Elin and Vivi in particular produced such forms often, which showed that their mastering of verb inflection was not as good as that of Berit, Rita, and Siri. The reason was perhaps that Elin and Vivi were in a lower grade than the three other classroom learners. The classroom learners produced such forms not only of verbs they were not able to identify in the verb identification tasks, like *epäröidätkö* (target form *epäröit*) ‘you hesitate’ (Rita, Vivi), but also of verbs they knew according to the identification tasks. Such verbs were *tullat* (target form *tuletko*) ‘do you come’ and *nähdät* (target form *näetkö*) ‘do you see’ (Vivi). In the group of bilinguals, only Anna produced such forms, for example, *me asuamme* (target form *asumme* ‘we live’; *minä ajatellan* [target form *ajattelen*] ‘I think’). These forms showed that the informants used mechanical combining as an inflectional strategy, even though combining is a problematic strategy in Finnish because it often results in errors (Martin 1995: 148). In verb conjugations, this strategy is even more problematic when compared to inflections of nouns because there is no free basic form of verbs. The segmentation between the stem and the infinitive suffix also may be more difficult than, for example, the segmentation between the stem and the personal suffix because the infinitive suffix is only a cue about the conjugation type of verb, whereas the personal suffix has semantic meaning. This means that the infinitive suffix bears only indexical meaning (Anttila 1974; Paunonen 1983 [1976]: 79-81).

Error type 4:

The informants did not inflect the priming verb, but some other verb, in both of the groups in some cases. For example, Elin confused the verbs *osata*, ‘can, be able to’ and *ostaa*, ‘to buy,’ and the verbs *tehdä*, ‘to make,’ and *tietää*, ‘to know.’ Confusing these common and frequent

verbs demonstrated that the vocabulary of Elin was small, which the number of verb lexemes in her production confirmed (see Table 5.1.). Martin (1995: 207) commented that confusion between words with similar beginnings is a common learner problem during the early stages of learning. Such confusion indicates that the lexical units are stored using phonological connections (Bybee 2003: 22).

Other informants also confused verbs. Berit used the verb *soittaa*, ‘cause to ring,’ instead of the verb *soida*, ‘to ring’ (see Table 6.16). Anna confused the verbs *oppia*, ‘to learn,’ and *opettaa*, ‘to teach,’ and the verbs *saada*, ‘to get,’ and *saattaa*, ‘can.’ Tiina inflected the verb *paleltua*, ‘freeze, frostbitten,’ instead of the verb *palella*, ‘to freeze.’ All these pairs are derivational pairs of verbs, that is, one of the verbs is derived from the other, and they are examples of both semantic and phonological connections between the words (Bybee 2003: 21-23). Kalle, on the other hand, confused two verbs in the same way as Elin did; there was no derivational relationship between the verbs that he was not able to hold separate. The verbs that Kalle mixed were *koota*, ‘to gather,’ and *koettaa*, ‘to try.’ Actually, Kalle first commented that he was not able to inflect the verb *koota*; he tried, but he did not find the correct form, and afterwards, he suggested another verb. Again, this error demonstrated a piece of evidence about phonological connections between different words (see Bybee 2003: 21-23).

7.3.4. Errors in use of question particle and negative forms

In this section, I first discuss how the informants used the question particle in yes/no questions in Finnish in the oral inflection task. Second, I explain how the informants produced the negative verb forms in this task.

In Finnish, yes/no questions are formed using a question particle, *-ko/-kö*, and moving the verb to the beginning of the sentence. There were nine forms of verbs where a question form ought to have been used. Table 7.10 presents both correct and incorrect yes/no questions in the oral inflection task.

Table 7.10

Yes/No questions in oral inflection task of bilinguals (BL) and classroom learners (L2)

	BL						L2					
	Anna	Kalle	Mari	Pekka	Tiina	Total	Berit	Elin	Rita	Siri	Vivi	Total
Question particle Used	6	9	7	7	6	35	0	4	3	1	2	10
Imperative	1	0	2	2	3	8	1	0	1	0	0	2
Total correct	7	9	9	9	9	43	1	4	4	1	2	12
Question particle not used	2	0	0	0	0	2	8	4	5	8	7	32
No production	0	0	0	0	0		0	1	0	0	0	1
Total errors	2	0	0	0	0	2	8	5	5	8	7	33

Instead of the question form of the verb, it is correct to use a verb inflected in the imperative. The bilinguals, more so than the classroom learners, often produced sentences with the imperative instead of the question form of the verb (examples 238 & 239).

- 238) Anteeksi, Sirkka, sano vielä kerran! (Instead of: Anteeksi, Sirkka, sanotko vielä kerran). (Pekka)
 Pardon, Sirkka, say+IMP once more! (Instead of: Pardon, Sirkka, say+SG2+Q once more). Pardon, Sirkka, say once more! Instead of: Pardon Sirkka, can you say once more.
- 239) Mitä kirjaa me juuri lukemeko? (target: Mitä kirjaa me juuri luemme?) (Vivi)
 Which book we now read+PL1+Q (target: Which book we now read+PL1?)
 Which book do we read now?

The most common problem for the classroom learners was that they forgot to use the question particle in yes/no questions. Anna made this error twice. Sometimes, the classroom learners also used the question particle in question-word questions ('wh' question), where the particle was not needed (example 239). So, the missing question particle was not the only type of error concerning how to form questions in Finnish in the classroom learners. How the classroom learners were able to form questions is discussed in more detail in Section 6.5., when their production in the oral tasks and essays is presented.

There were nine negative forms in the oral inflection task. The negative forms of the main verb are presented in Table 7.11, and because the negation word is a verb in Finnish (look at Table 7.2), its use is presented in Table 7.12.

Table 7.11

Errors made in negative inflection when inflecting main verb in oral inflection task of bilinguals (BL) and classroom learners (L2).

	BL:	L2:						
	Anna	Berit	Elin	Rita	Siri	Vivi	Total, L2	
Affirmative verb form used	4	1	3		3	2	0	9
Gradation error	0	0	1		0	0	0	1
1. infinitive used	0	8	6		0	0	8	22
1. infinitive + personal ending used	0	0	0		1	0	0	1
Incorrect verb used	0	0	1		0	0	0	1
No response	0	0	0		3	2	0	5
Total errors	4	9	11		7	4	8	39

The bilinguals made only a few mistakes in these forms in comparison to the classroom learners, who did not have a good command of the negative inflection of verb. The classroom learners used the 1st-infinitive form of the verb, the priming form, instead of the correct form the most often. Three classroom learners used the 1st-infinitive form frequently: Berit, Elin and Vivi. The use of the 1st-infinitive form was obviously the result of the priming form.

Besides the 1st infinitive, the informants also used the affirmative form of the verb quite often. The following examples show how the informants used the affirmative form instead of the negative form:

- 240) Toivottavasti sinä et suutut / suutuat. (target form: suutu). (Rita, L2)
 I+hope you no+SG2 get+angry+SG2 / get+angry+INF1+SG2
 ‘I hope that you do not get angry.’
- 241) Toivottavasti sinä et suuttuu (target form: suutu). (Siri, L2)
 I+hope you no+SG2 get+angry+SG3 ‘I hope that you do not get angry.’
- 242) Anteeksi, minä en ymmärtää / en / minä en ymmär... / eiku minä en ymmärrä (Anna, BL)
 Excuse me, I no+SG1 understand+SG3 / no+SG1 / I no+SG1 understand... / no+CLI I
 no+SG1 understand+NEG ‘Excuse me, I don’t understand.’

In my material, the same personal suffix as in the negative verb form was added to the affirmative verb form used in a negative conjugation, as in example (240). Sometimes, the affirmative form that substituted for the negative form was the 3rd-person singular form, as in example (241), although the person in the negative verb was another form.

In addition, the bilingual informant Anna used affirmative forms in some cases. Example (242) indicates that she was sometimes uncertain how to produce the negative form of the verb in Finnish, even though she finally produced the correct form in this example.

The use of the affirmative form instead of the negative form is a feature that had been noticed earlier in the learning of the Finnish language. An affirmative form instead of the negative form is used in Finnish child language (*Minä sitä ei kosken* (= *Minä en koske sitä*, ‘I am not touching it’ see Toivainen 1980: 48); such forms also are found in Finnish as second language material (see Lähdemäki 1995: 120-122). According to Lähdemäki (1995: 121), the affirmative form is an unmarked form, and the negative form is marked. The unmarked form is learned before the marked form. Bybee (2001: 5) pointed out that markedness is connected to frequency because the unmarked members of a category are the most frequent members. Affirmative forms are more frequent than the negative forms, so they are learned before negative forms and they are also used to substitute negative forms.

Table 7.12 presents the errors in production of the negative verb in the oral inflection task:

Table 7.12

Inflection of negative verb in person in oral inflection task in group of bilinguals (BL) and classroom learners (L2)

	BL:	L2:					Total, L2
	Pekka	Berit	Elin	Rita	Siri	Vivi	
3.pers. sg. incorrectly used	1	0	3	0	0	0	3
another incorrect person	0	1	2	0	0	1	4
Incorrect verb used	0	0	1	0	0	0	1
no response	0	0	0	3	2	0	5
Total errors	1	1	6	3	2	1	13

The classroom learners mastered inflection of the negation verb better than inflection of the main verb. The negative verb marked the category of person in the negative conjugation; it seemed, then, that the category of person was not difficult to learn, compared to forms that do not have such a clear function personal category. Elin, who also had the most problems finding the correct personal ending in regard to the affirmative forms, often had problems finding the correct personal ending in negative forms quite. The bilinguals, on the other hand, did not have problems with the negation verb, except one casual error.

The negative question form in the oral inflection task (look at Table 7.5) was difficult to produce for all of the informants. In addition, the bilinguals needed help to produce the negative question form; therefore, I did not count the production of this form in Tables 7.11 and 7.12.

The problems of conjugation identified in the oral inflection task seemed to be connected to many stem alternatives, which complicated the conjugation because the one-to-one principle was deviated from. One reason for errors in verb conjugations was the consonant gradation, which means that the verbs have many stems. However, not all problems were connected to many stems, because the classroom learners also made errors in the verb Type III, where no consonant gradation occur. The bilinguals made errors, which demonstrated that they used product-oriented schemas; the classroom learners used other analogic models, for example, one of them seemed to use a model verb to conjugate other verbs.

The informants made fewer errors with the personal suffixes than they made with the stems. The classroom learners were not able to separate the infinitive suffix from the infinitive stem. They also had problems producing the question forms and negative forms of verbs; however, these forms usually were not problematic for the bilinguals.

7.4. Multiple-choice task

7.4.1. Presentation of multiple-choice task

The multiple-choice task (see Section 4.3. and Appendix 5) included 62 choices from which the informants had to choose one of three alternatives. The verbs were in the indicative present tense the most often, but there were also three past tense forms in the task. There were affirmative and negative forms and yes/no questions. Table 7.13 presents the number of verbs in different verb types in this task, as well as the number of affirmative and negative verbs and yes/no questions.

Table 7.13

Number of verbs in different inflectional types in multiple-choice task. The percentages of different types are compared to the lexical frequency (%) of verb conjugation types in Karlsson (1983: 212-214).

		Affirmative forms	Affirmative questions	Negative forms	Negative questions	Total	%	Lexical frequency (Karlsson)
I	ASUA	12	0	9	0	21	34	58
II	HALUTA	8	1	1	1	11	18	11
III	SAADA	5	1	2	0	8	13	7
IV	MENNÄ	11	2	6	1	20	32	24
V	TARVITA	0	0	1	0	1	1	0
VI	VAIETA	1	0	0	0	1	1	1
		37	4	19	2	62	99	101

In the multiple-choice task, all the other types of verbs, except Type I, had a higher textual frequency when compared to the lexical frequencies in Karlsson (1983). Type IV had an especially high textual frequency in this task. In the multiple-choice task, there was one verb of Type V and one verb of Type VI.

Table 7.14 presents the alternative choices in the multiple-choice task.

Table 7.14

Alternative choices in multiple-choice task. The affirmative forms also included question forms; the negative forms also included negative questions

	Total	%		Total	%
Affirmative forms			Negative forms		
Correct form	41	33	Correct form	21	33
Incorrect personal form	31	25	Affirmative form	21	33
Incorrect stem	14	11	3. person singular	8	13
1. infinitive + pers. suffix	34	28	Other incorrect person	8	13
1. infinitive	3	2	Incorrect stem or form	5	8
Total	123	100	Total	63	100

To avoid the possibility that the informants would choose the incorrect variant because they were not sure about the correct orthography of Finnish, I did not give them incorrect verb forms, such as where a short consonant was used instead of a long consonant, for example, *leikivät* (target form *leikkivät*). To choose such an incorrect form might have indicated that the informant was not in command of the consonant gradation of Finnish, but it might also simply have indicated that the informant did not have a command of Finnish orthography. So, all the

incorrect forms in this task were forms that were not possible to be regarded just as orthographical problems. Many of the forms that occurred in this task were not forms typical of the learners' language in Finnish either, even though some of them were. The incorrect forms in this task were forms so deviant and odd that any Finnish speaker with a mother tongue competence certainly would have rejected them as forms of Finnish.

I present first the percentage of correct choices of verb stems in the different verb types of affirmative verb forms (Section 7.4.2); afterwards, I present the errors in affirmative forms and questions (Section 7.4.3) and errors in negative forms (Section 7.4.4).

7.4.2. Correct choices of verb stems

Figure 7.3 presents the percentages of correct affirmative forms that the informants chose in the multiple-choice task. Both the affirmative forms and the yes/no question forms were counted as percentages in Figure 7.3 because the affirmative verb forms and the yes/no question forms, including the question ending *-ko/-kö*, are the same forms, except for the question ending. Figure 7.3 also includes the forms with incorrect personal endings because these forms included a correct stem variant.⁵⁷ The multiple-choice task did not include questions where the question ending was lacking. Figure 7.3 presents the percentages of correct cases from all cases in subgroups; Appendix 20 presents the numbers.

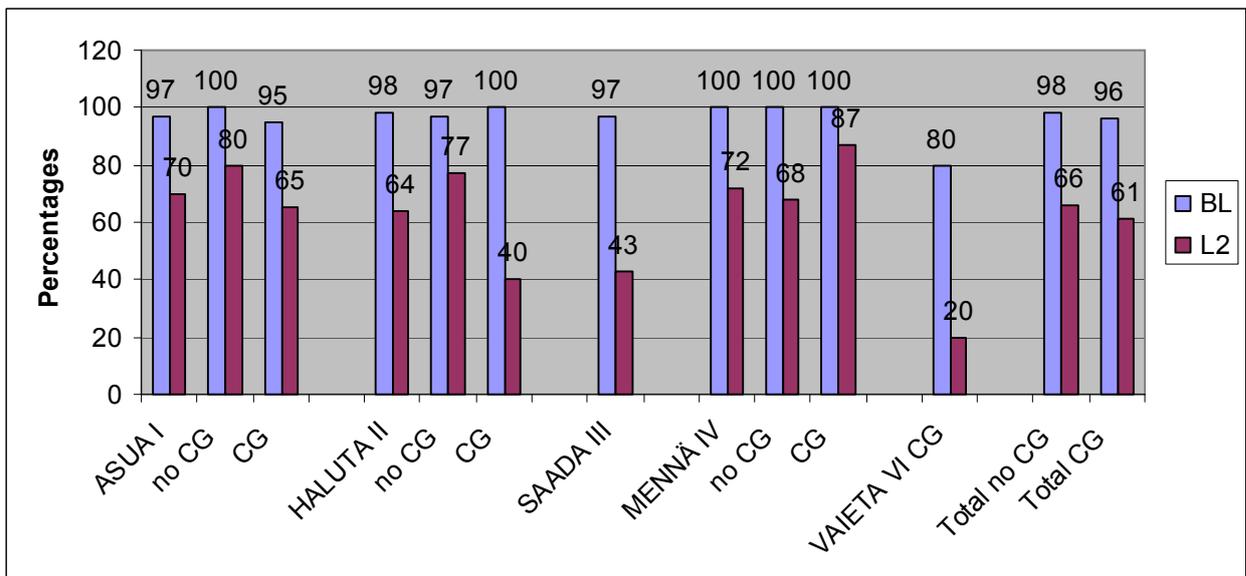


Figure 7.3. Percentages of choices of correct verb stems in multiple-choice task in bilinguals (BL) and classroom learners (L2). Percentages include the affirmative verb forms and the yes/ no questions of different

⁵⁷ If one calculates that the informants sorted out the incorrect person first and afterwards made the choice between incorrect stem and correct form, the alternatives, including the incorrect person, ought not to be counted in this figure. However, it was not apparent that the informants behaved systematically; therefore, I counted all forms including the correct stem in Figure 7.3.

verbs types I-VI; the verbs with a consonant gradation (CG) are separated from the verbs without a consonant gradation (no CG).

Figure 7.3 shows that the bilinguals chose the correct alternatives in most of the verb groups. Only some verbs with a consonant gradation (in verb Types I & VI), but also verbs without a consonant gradation (Types II & III), were chosen incorrectly by some of the bilingual informants. The total number of incorrect choices of affirmative forms and questions was only 5 from the group of bilinguals when the incorrect personal forms were not counted.

The percentage of correct choices of the classroom learners was exceptionally low in verb Type II, when this verb type had a consonant gradation. Another verb type in which the classroom informants had a low percentage of correct choices was Type III, the verb type without a consonant gradation. Both of these verb types were problematic for the classroom learners in the oral inflection task as well, as Figure 7.2 shows.

Although verb Type VI had the lowest percentage of correct choices in the multiple-choice task, there was only one verb of this type in the task. This inflection type is a relatively small one (Hakulinen & al. 2004: 105). Only 1 of the classroom learners chose the correct form of this verb in the multiple-choice task. The verb *vaieta*, ‘to be silent,’ also occurred in the verb identification task (look at Appendix 17). Both informant groups had problems identifying the forms of this verb in the verb identification task, but only 1 of the bilinguals chose an incorrect form of this verb in the multiple-choice task. So, in the group of classroom learners, it seemed that because they did not know this special verb, they were not able to choose the correct form in the multiple-choice task. In comparison, the situation seemed to be different for the bilinguals: They chose the correct form of this verb in the multiple-choice task, but they often had problems identifying this verb in the verb identification task. I suggest that the complexity of the verb made it difficult for the bilinguals to identify this verb in the verb identification task because the changes in the verb stem, especially the 1st-infinitive form of this verb, is different from the other forms. This verb includes a consonant gradation type where *k* alternates with *zero*, a consonant gradation type that also was problematic in the oral inflection task. This consonant gradation type changed the shape of the different stems a lot, so the phonologic connections between these forms were lost. Because the verb identification task was a list of verbs, the semantic connections between different verbs did not help the informants to keep the paradigm together either, but the multiple choice was a text where the semantic connections could help them (Martin 1995: 101, 126; see also Bybee 2003: 21-23; 98). Still, the verb *koota*, ‘to collect,’ including the same consonant gradation type, also was presented in a context because the oral inflection task was a dialogue (see Appendix 4); however, the semantic connections did not help the bilinguals to produce the correct form of this verb. This may have indicated the difference between the tasks: To produce a correct form was more difficult than to make a choice between one correct and two deviant forms.

Consonant gradation, to some degree, seemed to make the identification of verb forms more complicated. The informants made more errors with the forms that included a consonant gradation than forms that did not include a consonant gradation, although there were some

exceptions. The difference in the correct choices of verbs with a consonant gradation and verbs without a consonant gradation was not very large. In the group of bilinguals, the difference was only 2%, and in the group of classroom learners, the difference was 5%. In contrast, in the oral inflection task (look at Figure 7.2), there was quite a large difference how correctly the verbs without a consonant gradation and the verbs with a consonant gradation were produced: In the group of bilinguals, this difference was 16%, and in the group of classroom learners, it was 22%. This may have reflected the fact that consonant gradation was related to problems in production. However, the problems that the informants demonstrated with the verb Type III without a consonant gradation both in the multiple-choice task and in the oral inflection task demonstrated that consonant gradation was not the only cause of problems in inflection.

7.4.3. Incorrect choices of affirmative verb forms

Table 7.15 presents the number of correct and incorrect choices of affirmative forms and affirmative question forms in the multiple-choice task.

Table 7.15

Number of correct and incorrect choices of affirmative verb forms and affirmative question forms in multiple-choice task of bilinguals (BL) and classroom learners (L2)

	BL:							L2:						
	Anna	Kalle	Mari	Pekka	Tiina	Total	%	Berit	Elin	Rita	Siri	Vivi	Total	%
Correct forms	35	41	39	41	41	197	96	27	14	21	27	27	116	57
Incorrect personal form	3	0	0	0	0	3	1,5	3	6	2	2	3	16	8
Incorrect stem	1	0	2	0	0	3	1,5	1	6	4	4	3	18	9
1 st infinitive + personal suffix	2	0	0	0	0	2	1	10	14	11	7	7	49	24
1 st infinitive	0	0	0	0	0	0	0	0	0	1	0	0	1	0,4
No answer	0	0	0	0	0	0	0	0	1	2	1	1	5	2
Total incorrect	6	0	2	0	0	8	4	14	27	20	14	14	89	43

Three of the bilingual informants did not have any incorrect choices in this task. These informants were Kalle, Pekka, and Tiina. Mari made some incorrect choices, and Anna, the informant with the most incorrect forms in the oral inflection task, also made the most incorrect choices when compared to the other bilinguals. Only Anna chose incorrect personal endings in this informant group. Both Anna and Mari chose the verb form *me antaamme*, ‘we give,’ which included an incorrect stem variant, instead of the correct form given in the tasks, *me annetaan*, ‘we give.’ The last one is used in oral Finnish, but this form does not include the personal ending of the 1st-person plural. The personal ending seemed to be such an important cue for these informants that they chose the form with the personal ending, even though the form included an incorrect stem variant. In addition, the classroom learners chose

the same incorrect form with the personal ending. In choosing between the correct personal ending and the correct stem variant, the personal ending was a stronger cue than the correct stem for these informants when they decided between different forms. The personal suffix has a clear semantic meaning, and therefore it is preferred as the cue for a correct form.

Besides this form, Mari made only one another incorrect choice. This choice was of verb Type VI; Mari chose an alternative, *vainee*, instead of the correct form, *vaikenee*. This verb *vaieta*, 'to keep silent,' includes a difficult consonant gradation type *k: zero* and is included in the infrequent verb Type VI. It was problematic, as already pointed out in the previous section. Besides the choices of incorrect stem and incorrect person, Anna made incorrect choices in the yes/no questions. These incorrect forms included 1st-infinitive forms with a personal ending: *halutatteko* (correct form: *haluatteko*) and *voidatteko* (correct form: *voitteko*).

Again, similar to the oral inflection task, the informants made mistakes in their choice of correct stem variant more often than their choice of correct personal endings. The same informant, Elin, who had the most problems with the personal conjugation in the oral inflection task, made the most incorrect choices of personal endings as well in the multiple-choice task.

In Table 7.16, the verb forms in the multiple-choice task are arranged according to how difficult they were for the classroom learners.

Table 7.16

Verbs in the multiple-choice task according to difficulty for classroom learners. In Group A, all verbs were correctly chosen, in Groups B-F, verbs that are not marked were choices with incorrect stems or form. Incorrect choices of personal forms are marked with P, an incorrect stems are marked with S. The verb form in the table is the form used in the multiple-choice task.

Group A	Group B	Group C	Group D	Group E	Group F
Verbs chosen correctly by all 5 informants	Verbs chosen incorrectly by 1 informant	Verbs chosen incorrectly by 2 informants	Verbs chosen incorrectly by 3 informants	Verbs chosen incorrectly by 4 informants	Verbs chosen incorrectly by 5 informants
Affirmative verb forms					
Haluaa	Ajattelee S	Alkaa 2S	Arvelee 3S	Epäröi 4S	Annetaan 5S
Leikkivät	Huomaa P	Hyppää 2S	Määrään 3S	Huutavat 4P	Makaa 5S
Pureskelevat	Istut S	Ihmettelee S/P	Suuttuu 3S	Syö 4S	Mutisee 5S
Tuli	Katsoo S	Matkii S/P	Syötte 3S		Vaikenee 5S
	Kääntää P	Panee 2S	Vie 3S		
	Leikimme S	Saatte 2S	Vihaan 3S		
	Menee S	Toteaa 2S			
	Ovat S	vastaavat 2P			
	Sanoit S	Voitin SS			
	Tulette S				
	Tulee S				
Yes-/ no question forms					
		Kuulitteko 2S	Voitteko S/2P		
		Näettekö te 2P	Haluatteko 3P		

In Groups A and B, where the informants made the correct choices the most often, there were many frequent verbs and verbs that the classroom learners seemed to know. Such verb forms were *tulla*, ‘to come’; *haluta*, ‘to want’; *olla*, ‘to be’; *mennä*, ‘to go’; and *sanoa*, ‘to say.’ All of these verbs are very frequent in Finnish, and they were the verbs that the informants used in the oral tasks (see chapter 6). Other verbs that the informants seemed to know were *katsoa*, ‘to look,’ and *istua*, ‘to sit.’ These verbs also were used in the orals tasks and the essays, and they were also identified by all the classroom learners in the verb identification task (see Appendix 17). The verb *leikkiä*, ‘to play,’ was used by only 1 of the classroom learners in the oral tasks, but this verb belonged to those that the classroom learners identified well in the verb identification tasks; it is a frequent verb in the first volume of Slotte (1991). The verb *ajatella*, ‘to think,’ was not used by the classroom learners in the oral task or in the essays, but all of the informants identified this verb in the oral inflection task (see Appendix 17).

Besides these verbs, there was only one verb form in Group A that all of the classroom learners chose correctly, namely, the verb form *pureskelevat*, ‘to chew,’ which is not a frequent verb. The classroom learners did not use this verb in their production, and in the verb identification task, they did not know this verb either (look at Appendix 17). All of the

informants chose the correct form of this verb in the multiple-choice task, so this verb seemed to be an exception among the correct choices the classroom learners made in this task. This verb belongs to verb Type IV, which seemed to be a relatively easy type for the classroom learners, as the verb inflection task demonstrated (look at Figure 7.2); therefore, the correct choices were eventually based on verb type membership. In Group B, there were only two verbs that seemed unknown to the informants, even though they chose the correct forms of these verbs: *huomaa*, ‘to notice,’ and *kääntää*, ‘to turn, to translate.’ These verbs were not used in the oral tasks, and the verb *kääntää* in particular was poorly identified in the verb identification task by the classroom learners (see Appendix 17). *Huomata* is presented in the second volume of Slotte (1987) but the verb *kääntää* does not occur in the input. Still, it is possible that this verb was used in the classroom because of the meaning ‘to translate.’

Among the verb forms that the informants often chose incorrectly, there were relatively many verbs belonging to the verb Type III (*saada*). In the oral inflection task, this was one of the verb types where the classroom learners made many errors, even though this type does not include verbs with consonant gradation, as Figure 7.2 demonstrates. Table 7.16 shows that not only verbs that the classroom learners did not know (*epäröidä* ‘to hesitate’ *viedä* ‘to take away’) but also the verbs that they knew (*saada* ‘to get’ and the verb *syödä* ‘to eat’) caused problems. The verb *epäröidä* topped the list of verbs not identified in the verb identification tasks by the classroom learners (look at Appendix 17). *Viedä* was better identified than the verb *epäröidä*, but none of the classroom learners used this frequent verb in their own production. The verb *viedä* is a frequent verb in Slotte (1991). *Saada*, on the other hand, was used by 2 of the classroom learners in the oral tasks (chapter 6, Table 6.13), and the verb *syödä* was also used by 3 of them (chapter 6, Table 6.7). All of the classroom learners identified the verb *syödä* in the verb identification task correctly. Almost all the forms of the verb *saada* were identified in this task (look at Appendix 17). These verbs are also frequent verbs in the input of the informants, so why did the classroom learners choose incorrect forms of the verbs they knew, and why was this inflectional type difficult?

One explanation may be that incorrect alternatives in the multiple-choice task were forms that were based on the infinitive, including the infinitive suffix, such as *syödätte* (correct form *syötte*); the form *syödätte* may be mixed with verb forms from inflection Type I: *tietää*: *tiedätte*. Four of the classroom learners chose the incorrect form *syödää* (correct form *syö*). This incorrect form also resembled verb Type I, the largest verb type in Finnish. It includes at least two syllables, and in most cases, this type ends with the long vowel *a* or *ä* (Hakulinen & al. 2004: 105) both in the 3rd-person singular and in the infinitive form. In addition, the verbs in verb Type II have the long vowel *a* or *ä* in the 3rd-person singular in written Finnish. So, even though the Finnish verbs do not end in sequence *-daa/-dää*, the long vowel and the two syllables may be the cue that made so many classroom learners choose these incorrect verb forms.

Many of the informants also chose the following forms incorrectly, all of which included a long vowel *a* or *ä* at the end of the verb: *epäröidää* (4, correct form *epäröi*); *viedää* (3, correct form *vie*); *mutistaa* (4, correct form *mutisee*); *suuttuaa* (3, correct form *suuttuu*); and *arvella*

(3, correct form *arvelee*). The number in parentheses represents the informants who chose the incorrect form. All of these verbs were verbs that the informants did not know very well, according to the verb identification task (look at Appendix 17), and when a verb was unknown, the informants seemed to choose an alternative ending in long vowel *a* or *ä*. So, one may ask if the correct verb forms *huomaa* and *kääntää* were successfully identified because these verbs ended with long vowel *a* or *ä*.

Verb Type III is a small lexical type; especially verbs with one syllable are only 15. (Hakulinen & al. 2004: 105). Verbs including three syllables in this type form a larger subtype of Type III, but the input of the classroom learners does not present many of these verbs (see Appendix 12). The verb Type IV, where the classroom learners did not have many problems, is also a relative large verb type. It seemed, then, that the identification of (supposed) correct verb forms in Finnish was based on verb type frequency, which is the most important factor when schemas or mental representations of language forms are created (see Bybee 2003: 119; Croft & Cruse 2004: 296).

The forms of verbs where all the classroom learners made a mistake, namely, the verbs *vaieta: vaikenee*, ‘to keep silent,’ and *maata: makaa*, ‘to lie,’ were verbs that the classroom learners did not know on the basis of the verb identification task (look at Appendix 17). The verbs *vaieta* and *maata* include a consonant gradation type *k: zero*, which was difficult for all of the informants in the oral inflection task. The correct form *makaa* ends with long vowel *a*, but so did the incorrect alternatives in the task (see Appendix 5); therefore, it was not possible to know how the long vowel at the end of this verb influenced the choices of the classroom learners. The verb *vaieta* also was chosen incorrectly by one of the bilinguals in the multiple-choice task.

Why the classroom learners chose an incorrect personal form was not always easy to explain. In two cases, more than one informant chose an incorrect personal form. Three classroom learners chose *Meillä on kivaa, huudatte lapset* (correct form *huutavat*); ‘We have a nice time, the children shout.’ One explanation for this confusion was possibly the word order in this example; it seemed to be more difficult to make the connection between the correct person and the correct personal suffix when the subject constituent followed the verb.

The classroom learners chose an incorrect personal form more often in questions. The informants made an incorrect choice, for example, in the following lines of the father: “*Haluavatko jäätelöä? isä kysyy lapsilta*” (correct form *haluatteko*). So, the informants chose ‘Do they want to have ice cream?’ the father asks the children’ instead of ‘Do you want to have ice cream?’ the fathers asks the children.’ In this example, the dialogue in its entirety ought to have been analysed: One had to understand that the father was speaking to the children and that the lines represented his direct speech. However, even though the personal pronoun was found in the sentence, it was still difficult for the classroom learners to find the correct person: “*Lapset, näkevätkö te?*” (Correct form *näettekö te*). ‘Children, do you see?’ Actually, the word order of the subject constituent and the verb explained why it was difficult to connect the correct personal ending to the correct personal pronoun in this example.

7.4.4. Incorrect choices of negative verb forms

Table 7.17 presents the number of correct and incorrect choices of the negative verb forms in the multiple-choice task. The negative questions also were included.

Table 7.17

Numbers of correct and incorrect choices of negative verb forms in multiple-choice tas

	BL:						L2:							
	Anna	Kalle	Mari	Pekka	Tiina	%	Berit	Elin	Rita	Siri	Vivi	%		
Correct form	11	21	20	21	21	94	90	15	4	7	11	16	53	50
Incorrect forms:														
Affirmative form	9	0	1	0	0	10	9,5	3	10	7	9	5	34	32
3.person singular form	1	0	0	0	0	1	0,5	3	4	5	1	0	13	12
Incorrect personal form	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Incorrect stem or form	0	0	0	0	0	0	0	0	1	1	0	0	2	2
No answer	0	0	0	0	0	0	0	0	1	1	0	0	2	2
Total incorrect	10	0	1	0	0	11	10	6	17	14	10	5	52	49

In both groups, the negative forms were chosen correctly less often than the affirmative forms. Only Anna and Mari from the bilingual informants made incorrect choices of negative forms. Anna made errors in choosing an affirmative verb form instead of a negative form; in other words, she chose a form where the personal suffix occurred both in the negative verb and in the main verb. In the oral inflection task, she made such errors in the negative verb inflection. Actually, Anna chose an affirmative form more often than 3 of the classroom learners. Mari and Anna chose the alternative *Eikä me moitimme* (correct form *eikä me moitita*) ‘we do not criticize’; in this example, the oral 1st-person plural form was used. The ‘traditional’ form is *emmekä me moiti*. Perhaps the negative verb *eikä* was analysed as an adverb, not as a verb, because there was the particle *-kä*, so the negative verb form was not chosen. Not only these 2 bilinguals but also all of the classroom learners chose the same alternative, including the personal suffix.

The classroom learners made errors the most often when they chose an affirmative verb form instead of a negative verb form. Besides this error, they also chose an incorrect personal suffix in some cases, most often a verb form that was conjugated in the 3rd-person singular. It seems, then, that it was more problematic to find the correct form of the main verb in the negative conjugation than it was to find the correct personal suffix. So, the multiple-choice task demonstrated the same tendency as the oral inflection tasks (see Tables 7.10 and 7.11).

The multiple-choice task revealed that the choice of correct stem was more problematic than the choice of correct person. The classroom learners had more problems connected to the negative than to the affirmative conjugation. The analysis of the multiple-choice task helped

to identify why the classroom learners had problems with the verb Type III; it was because this verb type is a non-canonical verb type with a low type of frequency.

7.5. Verb conjugation in oral tasks and essays

This section presents the verb forms that the informants produced in the oral tasks and essays. I presented the affirmative and negative verb forms and the yes/no question forms in the oral and written tasks in Sections 7.5.1 and 7.5.2. In the next two sections, 7.5.3 and 7.5.4., I will explain how the informants used mood and tenses in their oral and written production. In Sections 7.5.5 and 7.5.6, I will present the voice and personal forms used in the orals and the essays. In Sections 7.5.7 and 7.5.8., I will present the verb string constructions in the oral tasks and the essays. Errors made in the oral tasks and the written production are presented in Sections 7.5.9 and 7.5.10.

The forms produced by the informants were analysed on the basis of the function they seemed to have in the sentences in this chapter, but these forms were not always the correct forms of Finnish. I will comment on the errors made by the informants when I present the examples, as well as the errors that were collected in the two last sections. In addition, I will present the errors in personal forms of the classroom learners in more detail in Sections 7.5.5 and 7.5.6. Section 7.6 summarises the main results.

7.5.1. Affirmative and negative verb forms and yes/no questions in oral tasks

In Table 7.18, the number and percentages of affirmative verb forms, negative verb forms, and yes/no questions (question verb forms) are presented in the oral tasks. The number of individual informants is presented in Appendix 21. The yes/no questions also include negative questions.

Table 7.18

Number and percentages of affirmative verb forms (= A), negative verb forms (= N), and question forms of verbs (= Q) in oral tasks of bilinguals (BL) and classroom learners (L2)

	BL						L2					
	A	%	N	%	Q	%	A	%	N	%	Q	%
Comics 1	186	90	10	5	11	5	138	94	5	3	4	3
Comics 2	151	85	24	13	3	2	105	85	14	11	4	3
Interview	204	80	45	18	7	3	70	96	2	3	2	3
All orals	541	84	79	12	21	3	313	91	22	6	10	3

Table 7.18 shows that the informant groups were more like each other in the comic strips than in the interview in regard to how they used these verb forms in percentages. Both groups produced more negative forms in comic strip 2 than in comic strip 1. Because comic strip 2 described a conflict situation, it was perhaps more natural to use negative forms in this task than in comic strip 1, which described shopping for shoes.

The highest percentage of negative verb forms was produced in the interviews with the bilinguals. The number of negative verb forms increased in the interview because answers like *En tiedä*, ‘I don’t know,’ or *En muista*, ‘I don’t remember,’ as well as other negative answers to questions, were usual in the genre of the interview.

I will present examples of negative and question forms only in this section. Examples of mood, tense, and personal forms are examples of affirmative verb forms; these forms are presented in the orals in Sections 7.5.3 and 7.5.5. I will present examples of both correct and incorrect negative and question forms in this section, but the number of incorrect forms is shown in Table 7.33 in Section 7.5.9.

Examples (243) to (248) are from the bilinguals:

- 243) Miks et ottanu ne halvemmat? (Mari BL, C1)
Why no+SG2 take+PCP those cheaper+ACC+PL ‘Why did you not take those cheaper (shoes?)’
- 244) No että tyttö haluaa lukea jotain tuommosta kirjaa mutta isä ei sit anna luvan / (Tiina BL, C2)
but father no+SG3 then give+NEG permission+ACC
‘So that the girl wants to read some book like that one but the father does not give a permission.’
- 245) Mä en tiiä miten ne vois sanoa. (Anna BL, C1)
I no+SG1 know+NEG how they can+CON+SG3 say+INF1
‘I don’t know what they could say.’
- 246) (Mites paljo tästä tulee kilometrejä?) En tiiä. / Oiskohan kaks sataa. (Tiina BL, I.)
No+SG1 know+NEG. / Be+CON+SG3+Q+CLI two hundred+PAR.
‘(How many kilometers will it be from here?) I don’t know. / Maybe two hundred.’

247) (No entäs täällä sitte täällä X:ssä onko täällä joku samanikänen / kaveri / kenen kanssa sä / puhut suomea?) A: Ei... Y:n kans (Y:n kanssa. Ymm.) A: Eiku me / me ei puhu ... me suomea. (Te ette puhu te puhutte norjaa keskenänne?) A: Joo.

(Mutta tietysti täällä sitte kun teillä on suomen tunti puhutteko te täällä suomea suomen tunnilla?) A: Ei (Ei [nauraa]) A: Vaan opettajan kans. (Opettaja puhuu suomea. Joo. Ymm.) (Anna BL, I)

No+SG3+CLI we / we no+SG3 speak+NEG / PL1 Finnish+PAR.

(Is there anybody here in X in your age / a friend / you talk Finnish with?) A: No... with Y (With Y. Ymm.) A: No we don't speak Finnish. (You don't speak you speak Norwegian with each other?) A: Yes. (What about when you have lessons in Finnish? Do you speak Finnish in Finnish lessons?) A: No (No [laughs]) A: Only with the teacher. (The teacher speaks Finnish. Yes. Ymm.)

248) Sitte se tyttö sanoo ei mitään. (Anna BL, C2)
Then the girl say+SG3 no+SG3 anything+PAR+CLI.
'And then the girl does not say anything.'

Negative forms were used in the lines of the comic figures, as in example (243), but also when the informants made comments about the behaviour of the comic strip figures, as in example (244). Sometimes, the informants also commented on the dialogue that they tried to create between the figures, as in example (245).

Examples (246) to (248) present negative answers of the bilinguals in the interview. The verb *tietää*, 'to know,' was used the most often in negative forms in the interview. About 33% (15 of 45 negative answers in the interview) of the negative verb forms in the interview were in the form *en tiedä*, 'I don't know.'⁵⁸ Example (246) presents one such negative answer where the verb *tietää* was used. As this example demonstrates, the use of this verb indicated not only that the informant did not know the answer at all but it also indicated uncertainty.

Present tense forms were dominant in the material; only 8% of the negative forms were examples of past tense forms. Only example (243) presents a negative past tense form; other examples present negative present tense forms. There were no examples of negative perfect and pluperfect forms in the group of bilinguals, nor were there any examples of the negative conditional.

The bilinguals made few errors with the negative verb forms. One way to analyse example (247) is to explain it as a mixing of two 1st-person plural forms: *Me ei puhuta* and *Me emme puhu* 'We don't talk'. If this expression was a mixing of these constructions, then a personal suffix of the 1st-person plural *-me* was added to the negative verb in this example. As pointed out in Section 7.3.4, the affirmative form of the verb is the unmarked form because it is more frequent than the negative form. A similar negative form that was a mixing of the two alternative 1st-person plural forms and also included a personal suffix was chosen by Anna in the multiple-choice task (see Section 7.4.4 & Table 7.17). Anna was the only bilingual

⁵⁸ The verb *tietää* had a higher percentage of negative answers even when compared to the negative forms of the verb *olla*, 'to be,' the most frequent verb in Finnish. There were some 24% (11/45) of negative forms of the verb *olla* in negative answers in the interview. Frequencies of these verbs were about 25% for the verb *olla*, 'to be,' and about 3% for the verb *tietää*, 'to know,' in all orals by the group of bilinguals (look at chapter 5.5.5).

informant in the oral inflection task who used affirmative forms as negative forms (see Table 7.11 & example 305). However, it is also possible that Anna stopped and the negative construction was not finished but that she started to say something else. Then, the element *me* is a personal pronoun ‘we’ in this example.

In example (248), an indefinite pronoun *ei mitään* ‘nothing’ was the object in a negative sentence. In such a case, the main verb ought to be in the negative form in Finnish, but in example (248), the negative form of the indefinite pronoun was used as an negative pronoun *ingenting*, ‘nothing,’ in Norwegian, and the main verb in a sentence was in the affirmative form. The example is a transfer error from Norwegian.

Examples (249) to (256) are negative forms produced by the classroom learners:

- 249) Minä en tiedä. (Rita L2, I)
I no+SG1 know+NEG ‘I don’t know.’
- 250) Ymm. Nyt minä en ole // vähäinen.(=vihainen) Ka var sur igjen? (Berit L2, C2)
Now I no+SG1 be+NEG // angry.
‘Ymm. Now I am not // angry. *What was angry again?* (Norw.)’
- 251) Liisa / ee... ei / lue / lehti (Vivi L2, C2)
Liisa / no+SG3 / read+NEG / magazine ‘Liisa does not read the magazine.’
- 252) isä ja äiti ei halua lue / luevat (Berit L2, C2)
father and mother no+SG3 want+NEG read / read+SG3
‘The father and the mother don’t want to read.’
- 253) Sinä ei... ehheh sinä ei / katsoo / kuvakirja (Elin L2, C2)
You no+SG3... you no+SG3 look+SG3 picture book
‘You don’t look at the picture book.’
- 254) Minä en / haluan kävellä kouluun. (Siri L2, C1)
I no+SG1 want+SG1 walk+INF1 school+ILL ‘I don’t want to walk to school.’
- 255) / minä en // juovat / kahvila (Vivi L2, C1)
I no+SG1 // drink+PL3 / café. ‘I do not drink coffee.’
- 256) Hän / hän ei ole / antaa minä. (Berit L2, C2)
He / he no+SG3 be+NEG / give+SG3 I ‘He has not given (it) to me.’

Example (249) was a negative answer used in the interview; all other examples were from the comic strip tasks. In these examples, negative verb forms were included either in the lines of the comic strip figures or in the comments that the informants made about these figures.

The classroom learners used the negative verb form correctly in 12 sentences; in 9 negative sentences, they used an affirmative verb form instead of a negative verb form; a negative perfect form was used once. Affirmative forms are more frequent forms than the negative forms; therefore, they are unmarked forms (see 2001: 5), which are learned before the marked forms (see Lähdemäki 1995: 121). Examples (249) to (252) are correct uses of negative verb forms.

The verb *olla*, ‘to be,’ was most often used correctly in negative conjugations; five of the seven uses of this verb were conjugated correctly, even though only 2 informants used the correct negative forms of *olla* (Berit and Siri). In addition, the negative form of the verb

tietää, ‘to know,’ was always conjugated correctly when it was used (four times); however, only Berit and Rita used this verb in the negative form in the orals. It seemed that the negative forms of these two verbs represented rote learning; in other words, expressions like *En tiedä*, ‘I don’t know,’ in example (249) were formulas (R. Ellis 1994: 272-273, see also Tomasello 2003: 305-312). Berit seemed not to have mastered negative conjugations in Finnish because she did not produce correct negative forms at all in the oral inflection tasks (look at Table 7.10). Elin used the negative form of the verb *saada*, ‘to get,’ correctly, but because this verb belongs to Type III, the affirmative form and the negative form in the 3rd-person singular are the same (look at example 132, which was presented earlier). Vivi correctly used the negative form of the verb *lukea*, ‘to read’ (example 251), and Berit the verb *haluta*, ‘to want,’ as in example (252).

Affirmative forms of the main verb, which the informants used in a negative verb conjugation to substitute a negative verb form (= verb stem), were sometimes conjugated in the 3rd-person singular, as in example (253), where the negative verb and the main verb were in the 3rd-person singular, even though the subject pronoun was in the 2nd-person singular. Both the negative verb and the main verb were conjugated in the 1st-person singular, as in example (257). Sometimes, the personal ending connected to the main verb was not the same as in the negation verb, but this ending was not the 3rd-person singular either (example 255). So, there were many variants in how person was expressed with the negative verb form in the same way as in the oral inflection task.

In example (256), the negative past tense form was used. This form was not the target language form because the main verb was not conjugated in the perfect participle, but the use of the auxiliary verb *olla*, ‘to be,’ indicated that the intended form was in the negative past tense form. The use of correct and incorrect personal forms is analysed in Section 7.5.5, and the number of errors in a negative conjugation is shown in Table 7.33 in Section 7.5.9.

Examples (257) to (260) present yes/no questions in the production of the bilinguals:

- 257) Voiksä tulla mulle? (Anna BL, C1)
‘can+(SG2)+Q+you come+INF1 I+ADE? ‘Can you visit me?’
- 258) Nii ja äiti kyssyy että onko sopivat kengät ja. Ja tyttö että on sopivat ja sitte tuo naine että / no haluakkos ottaa ne tai ostaa (niitä)? (Tiina BL, C1)
Yea and mother ask+SG3 that be+SG3+Q suitable+PL shoe+PL? And girl that be+SG3 suitable+PL and then that woman that / want+SG2+Q take+INF1 them or buy+INF1 (them)?
‘Yes and the mother asks if the shoes are suitable. And the girl (answers) that they are suitable and that woman (asks) that ‘Do you want to take them or to buy them?’
- 259) Oiskohan jossain kahvilassa tai jotain semmosta. (Tiina BL, C1)
Be+CON+SG3+Q+CLI some+INE+CLI café+INE or something+PAR+CLI such+PAR.
‘Maybe (they are) in some cafe or in some place like that.’
- 260) Eikö tämä oo hauskaa (Mari BL, C2)
No+SG3+Q this be+NEG nice+ PAR ‘Isn’t this nice?’

Yes/ no questions were often questions of the comic strip figures. Such questions were either direct questions, as in example (257), or referred questions of the comic strip figures in the

indirect speech of the informants, as in example (258). In example (257), the question form of the verb was an oral question form. In example (259), the question form was in the conditional and indicated uncertainty. There was also one direct yes/no question presented to the interviewer in the interview (see example 159 in chapter 6). There were only two negative questions in the orals produced by the bilinguals; one of them is example (260). Both of the negative questions were lines of the comic strip figures.

Examples (261) to (265) are yes/no questions produced by the classroom learners:

- 261) (Jaa. // Ehkä hän vielä sanoo tytölle että / tuletko kauppaan kello...) Elin: Kolme tuletko kauppaan kello kolme. (Elin L2, C1)
 Three come+SG2+Q shop+ILL clock three
 (Yes. Maybe she says the girl that do you want to come to the shop at clock...)
 Elin: Three do you come to the shop at three a clock.
- 262) Ymm... // onko me leikimme? Eh...(Rita L2, C1)
 be+SG3+Q we play+PL1 ? 'Do we play?'
- 263) Onko sin.. sinulla / ehh hal... haluavat / nei nei halua (maiskauttaa) // Onko sinä halu / ta nei ehh (Siri L2, C1)
 Be+SG3+Q you+ADE / want+PL3 / no no (Norw). want (smacks)// Be+SG3+Q you want no (Norw). 'Do you have / They want / no no want // Do you want / no'
- 264) Perhe on familie? (Vivi L2, I)
 'Family be+SG3 familie (Norw). 'Does *perhe* mean 'family'?'
- 265) Haluat sinä / lue luet tämä kirja? (Berit L2, C2)
 Want+SG2 you / read read+SG2 this book 'Do you want to read this book?'

The classroom learners did not produce the correct yes/no questions, except in one example where a yes/no question was produced using the model from the interviewer. Nevertheless, because Elin modified the clause that she got from me, I accepted this example to be a part of her production (example 261), even though I suppose that she was not able to produce a yes/no question without getting help. She only used the verb *tulla*, 'to come,' in this example.

The classroom learners produced yes/no questions using the *olla* verb as a dummy verb, as in examples (262) and (263): the verb *olla*, 'to be,' including the question particle, started the question. This verb is used as a kind of auxiliary verb. Such a form is not used in Finnish language, where the question particle is added to the main verb, which starts the question (Karlsson 1999: 71). Siri tried to form a yes/no question in example (263), but she was not satisfied with the result, as the Norwegian comment *nei*, 'no,' at the end of this utterance demonstrated. Actually, she was not able to complete her expression because she did not know how to form a question using a verb in Finnish.

What caused the use of a dummy verb? Example (263) indicated that the possession construction was confused by the yes/no question structure, because Siri first started to use the possession structure. I suggest that the use of *olla*, 'to be,' as a dummy question verb was related to the frequency of the verb *olla*. The form *onko* is also a frequent form, for example, when a possessive construction or some other construction is used in a question. Questions where the form *onko* was used were frequent at the beginning of the first volume of the textbook of Slotte (1991). Very young (age 2.2-2.9) Finnish-speaking children in Sweden

sometimes produce questions where the *onko* is used without any agreement with the subject pronoun. Kangassalo presented the following example: *onko sinä piirtäny tänne kissan?* instead of *oletko sinä piirtäny tänne kissan*, ‘Have you drawn a cat here?; see Kangassalo 1995: 183). The frequency of the form *onko* in questions in Finnish seems to have influenced the use of this form in such constructions of children, and the frequency of use also seems to explain the special use of *onko* in the questions of the classroom learners. Croft and Cruse (2004: 310) explained that the auxiliary *do*, which was not used in Middle English in questions, first developed in Modern English because the verb *do* in questions has a higher frequency than other verbs used in questions. The use of *olla* in the questions of the classroom learners as an ‘auxiliary’ verb can be explained in the same way. This verb form was stored as a holistic entity in the mental lexicon of the informants possibly because words with high token frequency are found to lose their connection with other words in the paradigm (Bybee 2003: 124). Also other Finnish L2-learners were found to use similar questions (see Koivisto, H. 1994:88).

The classroom learners also used intonation to mark a yes/no question, as in example (264). In example (265), the question was marked by the word order because a verb started the sentence, but no question particle was used in this question.

7.5.2. Affirmative and negative verb forms and yes/no questions in essays

The percentage of affirmative verb forms, negative verb forms, and yes/no questions (question verb forms) in the essays are presented in Table 7.19. The number of individual informants is presented in Appendix 22. The percentages are counted out of the number in the two essays in Table 7.19. Examples from the informants present both correct and incorrect uses of Finnish forms. Errors in the essays are presented in Table 7.34 in Section 7.5.10.

Table 7.19

Number and percentages of affirmative verb forms (= A), negative verb forms (= N), and question forms of verbs (= Q) in essays of bilinguals (BL) and classroom learners (L2)

	A	%	N	%	Q	%	A	%	N	%	Q	%
BL	243	92	16	6	4	2	L2	231	93	13	5	2

The bilinguals produced more affirmative forms in the essays than in the orals. In the group of classroom learners, the percentage of different verb forms was almost the same in the orals and the written tasks.

I present and comment only on the negative forms and the yes/no questions in this section, and the affirmative forms of verbs in the essays are presented in Sections 7.5.4 and 7.5.6, when I present other conjugational categories.

Examples (267) to (273) are from the bilinguals:

- 267) ‘Mitä jos en kehtaa.’ (Kalle BL, E2)
What if no+SG1 mind+NEG ‘What (do you think) if I don’t mind?’
- 268) niin ei tarvita vaihtaa niin paljon tätä koulua. (Pekka BL, E2)
so no+SG3 need+NEG change+INF1 so much this+PAR school+PAR
‘So one needs not change this school so much.’
- 269) Äiti ei tulut valittamaan. (Kalle BL, E1)
Mother no+SG3 come+PCP complain+INF3+ILL ‘The mother didn’t come to complain.’
- 270) Minä toivoisin myös että ei kukaan kirjottaisi käsin. (Tiina BL, E2)
I hope+CON+SG1 also that no+SG3 anybody+CLI write+CON+SG3 hand+INS’ ‘I would hope as well that nobody would write by hand.’
- 271) ja ei tarvita opettajaa. (Pekka BL, E2)
and no+SG3 need+PASS+NEG teacher+PAR ‘And a teacher is not needed.’
- 272) Ilkeitä opettajia ei tarvittaisi, koska tietokoneet opettaisi kaiken. (Tiina BL, E2)
nasty+PL+PAR teacher+PL+PAR no+SG3 need+PASS+COND
‘Nasty teachers are not needed because computers would teach everything.’
- 273) että me emme saada selkäsaunaa (Mari BL, E2)
that we no+PL1 get+PASS beating+PAR ‘That we don’t get beating.’

Fewer negative forms were used in the essays than in the oral tasks, especially in the production of the bilinguals. Negative forms were used by those informants who wrote dialogue in the essays in some cases, but negative forms were often used in narration or argumentation.

The bilinguals used the negative forms the most often in the present tense, as in examples (267) and (268). Still, there was more variation in the use of tenses in negative forms in the essays than there was in the oral tasks. Example (269) presents a negative past tense form, example (270) a negative conditional, example (271) a negative passive form, and example (272) a negative passive conditional form.

Except for some orthographical mistakes, as in example (269), there were only a few negative constructions, including errors in the production of the bilinguals. In example (268), an incorrect stem variant was used. This stem was the same form that Pekka used in the oral inflection task (see Table 7.9), where it was an example of a mixed paradigm. Because the informant used this form in his oral and written production, this analogical form did not seem to be any slip-of-the-tongue error in oral production, but a form that seemed to have a more stable mental representation.

In example (273), a negative form in the active 1st-person plural was used. This form was a mixing of two types of 1st-person plural forms in Finnish, that is, the one conjugated in person in the active form and the one which formally is similar with a passive form. Mari conjugated the negation verb according the first type, but the main verb was conjugated according to the second type of conjugation. The two alternative forms of the 1st-person plural seemed to be mixed together in this example. In the multiple-choice task, Mari chose the alternative where these two constructions were mixed together (see Table 7.17). In production, the mixing of the two 1st-person plural constructions only occurred in the negative forms.

Examples (274) to (278) are negative forms used in the written production of the classroom learners:

- 274) Minä en tiedä. (Siri L2, E2)
I no+SG1 know+NEG 'I don't know.'
- 275) Ne eivät ole vaarallinen. (Vivi L2, E1)
They no+PL3 be+NEG dangerous 'They are not dangerous.'
- 276) Minä en haluan tietokonekoulu (Siri L2, E2)
I no+SG1 want+SG1 computer-school 'I don't want any computer school.'
- 277) He eivät lukee kirja; (Siri L2, E2)
They no+PL3 read+SG3 book 'They don't read a book'
- 278) meemme myydän Stjerna. (Elin L2, E1)
we+no+PL1 sell+INF1+SG1 Stjerna 'We do not sell Stjerna.'

The classroom learners used the negative forms in narration, as in example (278), or sometimes when they expressed their opinions about schools of the future (example 276) in the second essay. One of the informants, Berit, did not produce any negative sentences in the essays.

The classroom learners produced only two examples in which the negative verb form followed the Finnish norm (examples 274 & 275). The verb *olla*, 'to be,' and *tietää*, 'to know,' were used in these examples; these were the verbs that the classroom learners often inflected correctly in the negative form in the oral tasks. This again demonstrated formulaic learning (see Ellis 1994: 272-273; Tomasello 2003: 305-312.)

The incorrect negative verb forms in the essays were the affirmative verb forms used the most often, as they also were in the orals, but in the oral inflection task, the classroom learners used the 1st-infinitive form the most often. It seemed, then, that the use of this form as a negative was a priming effect in the oral inflection tasks, as already pointed out.

The personal suffix in the main verb was sometimes the same as the personal suffix in the negative verb, as in example (276), or the main verb was inflected in the 3rd-person singular, as in example (277), although the negation verb was not the 3rd-person singular, but the 3rd-person plural, in this example. Elin used the 1st-person singular of the main verb, even though she inflected the negative verb in the 1st-person plural (example 278). Once, a noun in the inessive *kirjekynässä* was used instead of a verb form (see example 227), but the negation verb *eivät* showed that this combination actually could be understood as a verb form. Words belonging to same word class form one of the networks in the mental lexicon (Bybee 2003: 109-110), but the informant was not able to make the correct connections yet. Adjectives and adverbs also were word classes that the classroom learners mixed together (see example 4).

Examples (279) and (280) are yes/no questions used in the production of the bilinguals, and examples (281) and (282) were used in the production of the classroom learners.

- 279) Onko se hyvä? (Kalle BL, E1)
Be+SG3+Q it good 'Is it good?'
- 280) He kysyivät minullta että tahdonko tulla laulamaan yhteen esittelyyn.(Tiina BL, E1)
They ask+PAST+PL3 I+ABL that want+SG1+Q come+INF1 sing+INF3+ILL one+ILL

performance+ILL

‘They asked me if I wanted to come and sing in one performance.’

- 281) Onko me kävelemme ruokalle ja syömmek makkarat? (Berit L2, E2)
Be+SG3+Q we walk+PL1 food+ALL and eat+PL1 sausage+PL+ACC
‘Do we go to the dining room and eat the sausages?’

- 282) Per: Viihdytkö täällä? (Rita L2, E2)
Per (name): Like+SP2+Q here? ‘Per: Do you like to be here?’

There were only a few examples of yes/no questions in both of the groups. Example (279) was a line of dialogue. Tiina used an indirect question in narration, as in example (280). Only Berit and Rita from the group of classroom learners used yes/no questions in their essays. Both examples were used when they wrote a dialogue. Example (281) started with a dummy *olla* verb, not with the main verb, so this question was formed in the same way as examples (262) and (263) in the oral tasks, where the classroom learners did not seem to have a command of the yes/no questions. In the essays, there were also some correct yes/no questions, as in example (282), but only Rita from the group of classroom learners was able to produce yes/no questions correctly.

7.5.3. Mood and tenses in oral tasks

I first present mood in the oral tasks. Table 7.20 shows how the informants used the indicative, conditional, and imperative moods in the oral tasks. Individual numbers are presented in Appendix 23.

Table 7.20

Mood in the oral tasks. Number and percentages of verb forms in indicative (= Ind.), conditional (= Cond.), and imperative (= Imp.) of bilinguals (BL) and classroom learners (L2)

	BL			L2								
	Ind.	%	Cond.	%	Imp.	%	Ind.	%	Cond.	%	Imp.	%
Comics 1	191	93	6	3	9	4	145	99	0	0	3	1
Comics 2	168	95	2	1	9	4	119	98	0	0	4	2
Interview	235	92	21	8	0	0	74	100	0	0	0	0
All orals	594	93	29	5	18	3	338	99	0	0	7	1

I will present only examples of the conditional and the imperative, and examples of the indicative are explained when use of tenses and personal forms are presented in Section 7.6.5.

Examples (283) to (285) are conditional forms used in the production of the bilinguals:

- 283) Isä ja äiti sais.../ No jos voittasin kuus miljoonaa niin ne sais kaks / Ja loput säästäsin siihen kun tulisin aikaiseks. (Pekka BL, I)
Father and mother get+CON+SG3 / if win+CON+SG1 six million+PAR so they get+CON+SG3 two./And rest+PL+ACC spare+CON+SG1 until when become+CON+SG1 grown-up+TRA.
The father and mother would get...If I won six millions then they would get two. And I would spare the rest (of the money) until I am a grown-up.

- 284) No sitten tuossa ruokapöyvässä mitähän ne sitten sanois? (Tiina BL, C1)
and then that+INE breakfast-table+INE what+PAR+CLI they then say+CON+SG3
'And then (when they are) on that breakfast table what will they say then?'
- 285) Että jospa ostettais ne halvemmat kengät. (Tiina BL, C1)
That if+CLI buy+PASS+CON those cheaper+PL+ACC shoe+PL+ACC
'(The mother says) that we could take those cheaper shoes.'

The conditional was used in all tasks in the group of bilinguals. Only 1 informant (Kalle) did not produce the conditional at all, and Anna and Mari used the conditional only a few times (look at Appendix 23). A total of 72% of all uses of the conditional occurred in the interview, particularly in response to the question, *Mitä tekisit, jos voitaisit lotossa?* 'What would you do if you won in Lotto?' the informants used the conditional in the interview. However, only Mari, Pekka, and Tiina used the conditional when answering this question (example 345). In this example, the conditional expressed a hypothetical action that would become true only if the condition presented in the subordinate sentence beginning with *jos*, 'if,' were true. Such a conditional sentence type is often presented as the most typical for the use of conditional in Finnish, but actually, other uses of the conditional seem to be more frequent in Finnish child language material, according to Kauppinen. The most frequent functions for the conditional are to express images, plans, or desire in Finnish child language. Other frequent functions for conditional are requests and suggestions (Kauppinen 1998: 79). Still, if you do not use the conditional when you answer a hypothetical question, it may appear as a break from convention in Finnish.

In example (284), the conditional was used to express an image or an assumption about what the comic strip figures could do in different situations. Look also at example (220), where Anna tried to express the lines of the comic strip figures but commented that she was not able to produce their lines.

The conditional expressed uncertainty, as in example (259). The conditional also was used to convince the girl to buy a cheap pair of shoes instead of an expensive pair, as in example (285) and the conditional functioned as a suggestion in this example (see Kauppinen 1998: 79).

In examples (286) to (289), the imperative was used in the production of the bilinguals:

- 286) Äiti sanoo: herää ny (Kalle BL, C1)
Mother say+SG3: wake-up+IMP+SG2 now 'The mother says: Wake up now!'
- 287) Sitte sanoo tyttö että anna takasin. (Mari BL, C2)
Then say+SG3 girl that give+IMP+SG2 back 'Then the girl says (that) give it back!'
- 288) No tule hakemaan heiät kello kolme. / Mennään ostoksille. (Kalle BL, C1)
come+IMP+SG2 fetch+INF3+ILL them clock three. / Go+PASS shopping+ALL
'Come to fetch them at three o'clock. Let's go shopping.'
- 289) Tykkäätkö kengistä? / Iha hyvät. Ostetaan ne sitten. (Kalle BL, C1)
Like+SG2+Q shoe+PL+ELA? Very good+PL. Buy+PASS them then
'Do you like the shoes? / (They are) very good. Let's buy them then.'

The imperative is a prototype of the directive, and it expresses deontic modality the most often (Hakulinen & al. 2004: 1482, 1560). The imperative is an interpersonal mode (Karlsson

2003: 228), and in the same way as modal verbs that expressed interpersonal deontic modality in my material (look at Section 6.6.1) were most often used in the comics, the imperative was also used in the comics. All of the sentences with imperative forms were the lines of the comic strip figures, so imperative forms were used only in dialogues. In examples (286) and (287), the imperative was a 2nd-person singular form, and in example (288), there was, in addition to a 2nd-person singular imperative form, an imperative in the 1st-person plural form. The same form was used in example (289). Formally, these verb forms are passive present tense forms used as the imperative 1st-person plural, as is common in Finnish today. Typical for a passive present tense form used as the imperative is that the personal pronoun *me*, ‘we,’ is not used, and the verb starts the sentence (Hakulinen & al. 2004: 1566-1567), as was the case in these two examples.

Examples (290) to (293) are from the classroom learners:

- 290) Äiti sanoo osta // tuo kengät./ (Berit L2, C1)
 Mother say+SG3 buy+IMP+SG2 // this+ACC shoes+PL+ACC
 ‘The mother says, ‘Buy those shoes.’
- 291) Katso minä antaa / tämä sarjakuvassa / hänelle. Berit, C2
 Look+IMP+SG2 I give+SG3 / this comic-strip+INE / she+ALL
 ‘Look, I give this comic strip to her.’
- 292) Isä. Ole hyvä! Elin, C2
 Father. Be+IMP+SG2 good. ‘The father (says): Here you are!’
- 293) Antaa minä! Berit, C2
 Give+SG3 I ‘Give (it) to me!’

The classroom learners used only imperative forms besides verb forms in the indicative in the orals. Verb forms in imperative mode in the 2nd-person singular occur in the first textbook of Slotte (1991) in some texts. All imperative forms were the lines of the comic strip figures in the dialogues that the informants created between these figures. The classroom learners used the imperative only in the 2nd-person singular. In examples (290) to (292), the imperative form was the correct form. In example (292), Elin used a phrase of politeness that included an imperative form. In example (291), the imperative form *katso*, ‘to look,’ seemed to function as a particle: The verb *katso* was followed by a sentence that was not a subordinate clause of the verb in the imperative but functioned as an independent sentence (see Hakulinen & al. 2004: 1562). Berit used the 3rd-person singular form in example (293), but the function of this form seemed to be in the imperative because the subject was missing and the verb started the sentence, which are typical features of a command (Hakulinen & al. 2004: 1563).

Table 7.21 presents the tenses used in the oral tasks. There were no pluperfect forms in the orals. Individual forms are found in Appendix 24.

Table 7.21

Tenses in oral tasks. Number of verb forms and percentages of verb forms in present tense (= Pres.), past tense (= Past) and perfect (= Perf.) of bilinguals (BL) and classroom learners (L2)

	BL						L2					
	Present	%	Past	%	Perf.	%	Present	%	Past	%	Perf.	%
Comics 1	193	93	13	6	1	1	147	99	1	1	0	0
Comics 2	165	93	9	5	4	2	122	99	0	0	1	1
Interview	206	80	30	12	20	8	74	100	0	0	0	0
All orals	564	88	52	8	25	4	343	100	1	0.3	1	0.3

The bilinguals seemed to have more variation in use of tenses in the interview than in the comics. The classroom learners used only very few examples of other tenses besides the present tense.

Examples (294) to (298) are from the bilinguals:

- 294) Ja sitten isä tulee ja kysyy että mitä se lukee. Ja se sanoo että luen tämmöstä / Aku Ankka lehteä ja se on tosi mukava. (Pekka BL, C2)
 And then father come+SG3 and ask+SG3 that what+PAR she read+SG3. And she say+SG3 that read+SG1 such+PAR / Aku Ankka comic strip+PAR and it be+SG3 very nice.
 ‘And then the father comes and asks that what she is reading. And she says that I read such Donald Duck comic strip and it is very nice.’
- 295) Tyttö sanoo isälle / eiku äitille että / isä otti sarjakuvan / ja ei anna takasin. (Mari BL, C2)
 Girl say+SG3 father+ALL / no+SG3+CLI mother+ALL that / father take+PAST+SG3 comic-strip+ACC / and no+SG3 give+NEG back
 ‘The girl says to the father, no to the mother that the father took the comic strip and he doesn’t give it back.’
- 296) Ku sä oot tehnyt läksyt ni, sää voit saahas sen takasin. Joo mä onn tehnyt ne. (Kalle BL, C2)
 When you be+SG2 do+PCP home-work+PL+ACC so you can+SG2 get+INF1 it+ACC back. Yes I be+SG1 do+PCP them+ACC.
 ‘After you have done the homework, you can get it (= comic strip) back. Yes I have done it (= homework).’
- 297) (No mitäs sinä sitte teet kotona?) Anna: Ehh... minä... / katson televisio /televi... joo / ja mä teen läksyt / ja mä syön. (Anna BL, I)
 I look+SG1 television televi... yes I do+SG1 home-work+PL+ACC and I eat+SG1
 ‘(What do you do at home then?) Anna: I look at the TV and I do the homework and I eat.’
- 298) (Ja olek sää asunut täällä X:ssä koko / ikäsi?) Tiina: Enko muutin tänne /viisvuotiaana. / Asuin ensin Y:ssä./ (Ahaa. Joo.) Ja mie oon syntynyt siellä. (Tiina BL, I)
 no+SG1+CLI move+PAST+SG1 here fiveyear+ESS. Live+PAST+SG1 first Y+INE. And I be+SG1 born+PCP there.
 ‘And have you lived here in X the whole of your life?) Tiina: No I moved here at the age of 5. I lived first in Y. (Okay. Yes) T: And I have been born there.’

The situations in the comic strips were connected to the present the most often because the informants first described what was happening in the comic strips and then produced the lines

of the comic strip figures. Example (294) shows how the present tense was used both in the narrative and in the lines of the comic strip figures. Still, even some past tense or perfect forms were used in the narration and the dialogue in the comic strips, as examples (295) and (296) demonstrate.

In the interview, the present tense was used, for example, when the informants replied to questions about their hobbies or day programs, as in example (297). The use of the past tense and the perfect were connected to questions about where the informants have lived or where they were born, as in example (298).

Examples (299) to (302) are from the classroom learners:

- 299) (Mitä he puhuvat siellä?) Berit: Ehhh mikä äiti sanoo: Mikä sinä / teet koulussa tänään? Me laulamme ja... / ja ehk // luemme. (Berit L2, C1)
 What mother say+SG3: What you do+SG2 school+INE today? We sing+PL1 and read+PL1
 ‘(What are they talking there?) Berit: The mother says: What do you do at the school today? We sing and read.’
- 300) (Pelaatko jalkapalloa talvella?) Siri: Ei ei / ei minä hiihdän. (Siri L2, I)
 no+SG3 no+SG3 no+SG3 I ski+SG1 ‘(Do you play football in winter?) Siri: No no no I ski.’
- 301) (Mitä äiti sanoo?) Vivi: Äiti sanoo:// Mitä / te te(i)tte? (Vivi L2, C1)
 Mother say+SG3: What+PAR you do+(IMP)+PL2
 ‘(What does the mother say?) Vivi: The mother says: What did you do?’
- 302) (Ja sitten / mitäs siellä tapahtuu. Äiti tulee myös). Berit: Ymm.// Mikä sinä teke... mikä he tekevät? Ymm. // Ehh. Nei. Mitä te tekette? Ymm. Isä // tok (hän otti) B: Isä otti minun sarjakuva. Hän / hän ei ole / antaa minä. (Berit L2, C2)
 What you do... what they do+PL3 // no (Norw). What you do+PL3. Father // took (Norw)
 Father take+PAST+SG3 I+GEN comic-strip. He he no+SG3 be+NEG give+SG3 I.
 ‘(And then what happens there? The mother comes also). Berit: What do you do? What do they do? No (Norw). What do you do? The father took (Norw). (L: he took) B: The father took my comic strip. He has not given (it) (to) me.’

The classroom learners used very few forms of other tenses besides the present tense in the oral tasks. Example (299) shows how the classroom learners used the present tense when they produced the lines of the comic strip figures. In example (300), the present tense was used when the informant talked about her hobbies in the interview. The past tense was not used at all, with the exception of one single, and with some uncertainty, example (301). As example (302) demonstrates, Berit did not know the past tense of the verb *ottaa*, ‘to take,’ so she asked me. The verb form *otti* was not counted as one of Berit’s verbs because this was the only time she used this verb. The perfect form that she used in the same example was not a correct form of Finnish because the main form was not a perfect participle, but a 3rd-person singular form in present tense. Still, the function of the form seemed to be perfect in the sentence, so it was counted as a perfect form in Table 7.21.

7.5.4. Mood and tenses in essays

Table 7.22 presents the mood used in the essays; the number of verbs inflected in the conditional and the imperative of the individual informants are presented in Appendix 25.

Table 7.22

Mood in essays. Number of verb forms and percentages of verb forms in indicative (= Ind.), conditional (= Cond.), and imperative (= Imp.) of bilinguals (BL) and classroom learners (L2)

	Ind.	%	Cond.	%	Imp.	%		Ind.	%	Cond.	%	Imp.	%
BL	238	90	23	9	2	1	L2	247	99	1	0.4	1	0.4

The imperative was used infrequently in the essays, but the conditional was used more often in the interview by the bilinguals. Again, the classroom learners used the conditional and the imperative modes in just a very few cases.

I present only examples of the conditional and the imperative here, and examples of the indicative are presented in combination with voice, tense, and personal forms.

Examples (303) to (305) are examples of the conditional, and examples (306) and (307) show how the imperative was used in the essays of the bilinguals:

- 303) “Jo, se olisi hauska, mutta en mä tiedä saank lupa”, minä sanoi. (Mari BL, E1)
Yes it be+CON+SG3 nice but no+SG1 I know+NEG get+SG1+Q permission I say+PAST. “Yes, it would be nice, but I don’t know if I will get a permission,” I said.
- 305) Ei pitäs olla niin paljon läksyjä ja niin monta tuntia joka päivä. (Pekka BL, E2).
No+SG3 must+CON+SG3 be+INF1 so much home-work+PL+PAR and so many+PAR lesson+PAR every day.
‘One ought not to have so much homework and so many lessons every day.’
- 306) Koulussa pitäis myös olla ruokatarjoilua jos joku tulis väsyneeksi. (Tiina BL, E2).
School+INE must+CON+SG3 also be+INF1 food-serving+PAR if somebody become+CON+SG3 tired+TRA
‘There ought to be serving of food also at school if somebody should become tired.’
- 307) “Kalle, tule tänne vähäsen,” isi husi. (Kalle BL, E1)
Kalle, come+IMP+SG2 here a-little+GEN daddy shout+PAST+SG3
“Kalle, come here for a while,” daddy shouted.
- 308) “Mennän Britney Spears konsertiin.” Ragnhild sanoi. (Mari BL, E1)
Go+PASS Britney Spears concert+ILL Ragnhild say+PAST+SG3
“Let’s go to the concert of Britney Spears” Ragnhild said.

The conditional was used more often in essay 2, *The School in Future*, than in the first narrative essay. There was only one example of the conditional in essay 1, so the use of the conditional in the essays seemed to depend on the genre of the essay. The conditional was used in an argumentative essay, but not that often in the narrative essay. Tiina in particular used the conditional quite often in essay 2, where over 60% of finite verbs in her clauses were in the conditional.

In example (303), the conditional was used to express desire. In essay 2, the conditional often was used when the informants made suggestions about future schools, as in examples (304) and (305). Example (305) included two conditional forms. The first was a suggestion, and the second occurred in a condition clause beginning with the subordinate conjunction *jos*, ‘if,’ and expressing a situation that might possibly happen. All these examples display typical use of the conditional mode in Finnish (see Kauppinen 1998: 79).

The imperative was used only by those informants who wrote a dialogue in essay 1. In example (306), the imperative was in the 2nd-person singular and in example (307) in the 1st-person plural; a passive form of the verb was used in this example as an imperative in the 1st-person plural in the active voice.

There were only two examples of the conditional and the imperative in the production of the classroom learners. Both examples were made by Berit:

- 308) Tänään teidän pitäisi autaa koulu laitta kotisivua... (Berit, E2)
Today you+GEN must+CON+SG3 help school make+INF1 home-page
‘Today you ought to help the school to make home page.’
- 309) Katso, S. ratsastaa, E. sanoo. Berit, E1.
Look+IMP+SG2 S. ride+SG3, E. say+SG3
Look, S. is riding, E. says.

Both the conditional and the imperative were used in the dialogue in the essays completed by of Berit. In example (309), Berit used the verb *katso*, ‘to look,’ in the same way as in the oral tasks. This imperative form seemed to function as an adverbial.

Table 7.23 presents the tenses used in the essays. Individual examples are presented in Appendix 26.

Table 7.23

Tenses in essays. Number of verb forms and percentages of verb forms of present tense (= Pres.), past tense (= Past) and perfect (= Perf.) and pluperfect (= Pperf.) of bilinguals (BL) and classroom learners (L2)

	Pres.	%	Past.	%	Perf.	%	Pperf.	%		Pres.	%	Past.	%	Perf.	%	Pperf.	%
BL	130	49	123	47	4	2	6	2	L2	242	97	2	1	4	2	1	0,4

The present tense and the past tense were used often in the essays of the bilinguals. The classroom learners used only a very few other tenses besides the present tense. The use of the present tense versus the past tense seemed to be genre dependent in the essays by the bilinguals because essay 1, the narrative essay, saw the most frequent use of the past tense. In this essay, over 60% of the verb forms made by the bilinguals were in the past tense, but in essay 2, only 19% were past tense forms (look at Appendix 27). In comparison to the other bilingual informants, Anna did not use the past tense at all in her essays. This did not indicate that she was not able to produce past tense forms; rather, it might have indicated that she did not mark the narrative genre using past tense, so this was a problem of style. Appendix 25 shows that Anna did not use any conditional either in essay 2; the conditional seemed to indicate argumentative genre. The same was true concerning Kalle, who also did not use the conditional in essay 2. Appendix 27 shows also that Kalle used the past tense more often than all of the other informants. This was because he chose to write essay 2 as a narrative story, and did not use argumentation. Consequently, he used the past tense often in this essay.

Examples (310) to (314) are from the bilinguals:

- 310) Koulussa on liian paljon teorioita ja vähän käytäntöä. Meillä on van kaksi viiko ammatiharjoitusta yläasteella. Tulevaisuudessa pitää antaa enemmän aikaa käytäntölle, koska siitä opii. (Mari BL, E2)
 School+INE be+SG3 too much theory+PAR and little practice+PAR. We+ADE be+SG3 only two week profession-exercise+PAR upper-level+ADE. Future+INE must+SG3 give+INF1 more time+PAR practice+ALL because it+ELA learn+SG3
 ‘There is too much theory and too little practise at school. We have only two weeks exercise of profession at the upper level. In future one needs to give more time to practise, because then one learns.’
- 311) Tulin kotiin kovan koulupäivän jälkeen. Oli maanantai. Äiti seiso keittiössä ja teki turskaa ja kiehutti pottuja. (Kalle BL, E1)
 Come+PAST+SG1 home+ILL hard+GEN school-day+GEN after. Be+PAST+SG3 Monday. Mother stand+PAST+SG3 kitchen+INE and make+PAST+SG3 cod+PAR and cook+PAST+SG3 potato+PL+PAR
 ‘I came home after a hard day at school. It was Monday. Mother stood in the kitchen and made cod and cooked potatoes.’
- 312) Ulkona on aurinko. Minä menen McDonaldsiin. Siellä minä ostan jätskin ja pirtelöön. Anna, E1
 Outside be+SG3 sun. I go+SG1 McDonalds+ILL. There I buy+SG1 ice+creame+ACC and milk-shake+ACC.
 ‘The sun is shining outside. I go to McDonalds. I buy an ice cream and a milk shake there.’

- 313) Yhtäkkiä suuri lauma ihmisiä tulee minua kohti. He kysyvät minulta että tahdonko tulla laulamaan yhteen esittelyyn. He olivat nähneen kun olin ollut laulamassa ungdommens kulturmönstringissä. Ja heidän mielestä olin laulanut hyvin. Minä suostuin laulamaan. (Tiina BL, E1)
 Suddenly big crowd human-being+PL+PAR come+SG3 I+PAR towards. They ask+PL3 I+ABL that want+SG1+Q come+INF1 sing+INF3+ILL one+ILL performance+ILL. They be+PAST+PL3 see+PCP+GEN when be+PAST+SG1 be+PCP sing+INF3+INE youth+GEN cultural exhibition (Norw) +INE. And they+GEN mind+ELA be+PAST+SG1 sing+PCP well.
 ‘Suddenly a big crowd of people come towards me. They ask me if I want to come and sing in one performance. They had seen when I had been singing in culture exhibition of the youth. And according to them, I had been singing well. I agreed to sing.’
- 314) Minä toivoisin että koulu olisi niin kuin minä olen kuvaillut, koska sitten olisi paljon haus Kempaa olla koulussa. (Tiina BL, E2)
 I hope+CON+SG1 that school be+CON+SG3 as I be+SG1 describe+PCP because then be+CON+SG3 nicer+PAR be+INF1 school+INE
 ‘I hope that the school would be as I have described because then it would be more fun to be at school.’

Example (310) shows how the present tense was used in essay 2 in argumentative style. Example (311) shows the use of the past tense in essay 1 in narration. However, Anna used the present tense also in the narrative genre, as demonstrated in example (312). Tiina started the narration in essay 1 using the present tense; hence, her production indicated some hesitation about how to write using the narrative genre, but afterwards, she started with the pluperfect and told the rest of the story in the past tense, as demonstrated in example (313). The pluperfect was used only in essay 1, demonstrating that the past tense and the pluperfect often occur together (Hakulinen & al. 2004: 1467); the perfect was used in both essays. Example (314) is an example of the perfect in argumentative style.

In example (313), Tiina used a past participle form in the genitive *nähneen*. Such a form is used in so-called participial construction in Finnish, for example, *Näen Kallen itkeneen*, ‘I see that Kalle has been crying’ (Karlsson 1999: 201). However, Tiina used this form as an ordinary pluperfect form of a verb. This form was a hypercorrect form perhaps because such participial constructions, including past participle genitive, are usual in written Finnish.

Examples (315) to (320) are from the classroom learners:

- 315) Se on sununtai. Ulkona aurinko paistaa. Minä, Eilif ja Ida olemme ulkona. Lumi on märkä. (Berit L2, E1)
 It be+SG3 Sunday. Outside sun shine+SG3. I, Eilif and Ida be+PL1 outside. Snow be+SG3 wet. ‘It is Sunday. The sun is shining outside. I, Eilif and Ida are out of doors. The snow is wet.’
- 316) Minä toivon että minun lapset saavat hyvän koulun, yhtä hyvä kuin tämän päivän koulussa. (Vivi L2, E2)
 I hope+SG1 that I+GEN child+PL get+PL3 good+ACC school+ACC, as good as this+GEN day+GEN school+INE
 ‘I hope that my children will get a good school, as good as the school (is) today.’
- 317) Meilän oli yksi upean ratsastusretkin. (Elin L2, E1)
 we+ADE+GEN be+PAST+SG3 one wonderful+GEN horseback-ride+GEN
 ‘We had one wonderful horseback ride.’

- 318) Leena: Kauanko olet ollut täällä? Marion: Olen ollut täällä perjantaista asti. (Rita L2, E2)
 Leena: How-long+Q be+SG2 be+PCP here? Marion: Be+SG1 be+PCP here Friday+ELA since. 'Leena: How long time have you been here? Marion: I have been here since Friday.'
- 319) Vuosituhat on vaihtunut. (Siri L2, E2)
 Millenium be+SG3 change+PCP 'The millenium has changed.'
- 320) minun äiti oli leipoi pulla. Siri, E1
 I+GEN mother be+PAST+SG3 bake+PAST+SG3 bun+PAR 'My mother had baked buns.'

The classroom learners used the present tense in both essays. In other words, they did not distinguish between the genres in these essays using different tenses, nor did they use the conditional to differentiate the essays (look at Tables 7.22 and 7.23). This reflected the fact that the present tense in the indicative was the tense they were able to produce the best. The past tense and perfect forms are presented in the second volume of the textbook of Slotte (1987); in the first volume (1991) only present tense occurs. Example (315) shows the use of the present tense in the narrative. In example (316), present tense forms were used in the argumentative essay; the second form in the present tense expressed the future in this example. The future does not have any morphological marker of its own in Finnish (Hakulinen & al. 2004: 1468).

Still, there were some examples of other tenses in the production of the classroom learners. In example (317), the past tense was used. Besides that example, there was only one other example (160 presented earlier) where the verb was used in past tense form. However, one may ask if the verb also functioned as a past tense form in example (160) because the rest of the essay was written in the present tense. In examples (318) and (319), the perfect was used. Most examples of perfect forms were produced by Rita, who used the perfect many times in essay 2. However, the only verb form she conjugated in the perfect was the verb *olla*, 'to be.' This is an example of item-based learning because the perfect form is learned in the connection with one verb only (see Tomasello 2003: 118-119). In the input, not only *olla* but also many other verbs were used in the perfect (see Slotte 1987). Siri used the perfect, as in example (319), and the pluperfect, as in example (320), but she produced only one example of both forms. Her perfect form was correct, but the pluperfect was created using two past tense forms after each other.

7.5.5. Voice and personal forms in oral tasks

There were no verb forms in the passive voice in the oral tasks, so all of the informants' examples were personal forms in the active voice. Passive forms occurring in active function as forms of the 1st-person plural are presented with active forms. The personal forms are presented in Table 7.24; the numbers of individual informants are presented in Appendix 28.

Table 7.24

Personal forms in oral tasks. Number and percentages of 1st-person singular (= 1.p.sg.), 2nd-person singular (= 2.p.sg.), 3rd-person singular (3.p.sg.), 1st-person plural (= 1.p.pl.), 2nd-person plural (2.p. pl.), and 3rd-person plural (3.p.pl.) of bilinguals (=BL) and classroom learners (=L2).

	1.p.sg.	%	2.p.sg.	%	3.p.sg.	%	1.p.pl.	%	2.p.pl.	%	3.p.pl.	%	Total
BL													
Comics 1	16	8	13	6	127	61	10	5	0	0	41	20	207
Comics 2	15	8	24	13	129	73	1	0,6	0	0	9	5	178
Interview	121	47	1	0,4	102	40	24	9	0	0	8	3	256
All orals	152	24	38	6	358	56	35	5	0	0	58	9	641
L2													
Comics 1	35	24	13	9	69	47	10	7	0	0	21	14	148
Comics 2	22	18	20	16	66	54	1	1	2	2	12	10	123
Interview	50	68	0	0	21	28	3	4	0	0	0	0	74
All orals	107	31	33	10	156	45	14	4	2	1	33	10	345

The personal forms shown in Table 7.24 were not always correctly used. The person of the subject and the personal suffix of the verb were not always in agreement, or the verb used was not conjugated in person. In such examples, the person of the subject was used to decide the category of person in Table 7.24. I present the errors made in the personal forms by the classroom learners in Tables 7.25 and 7.26.

The bilinguals used the 3rd-person singular form more often and the two other personal forms in the singular less often than the classroom learners. The more frequent use of the 1st-person singular in the production of the classroom learners, compared to that of the bilinguals, was clear, especially in the interview but also in the comics. In reported speech, many elements of sentence are expressed from the point of view of the speaker; therefore, the 1st and 2nd person are used in direct speech but the 3rd person in indirect speech; even if these two modes can be mixed together (Hakulinen & al. 2004: 1405-1408). The classroom learners used only direct speech in the dialogue that they created between the comic figures; therefore, the lines of the comic figures were created using many 1st- and 2nd-person forms in their production. No variation was found between direct and indirect speech; they did not mix these modes either. Because changing perspective when making reference is demanding, the classroom learners did not use the indirect mode. Making reference in narratives develops slowly in child language (see Tomasello 2003: 275; Brown, A. 2004: 503). In contrast, the bilinguals used both direct speech and indirect speech or mixed them together and consequently used more 3rd- person forms; they did not have any problem varying between the different modes (see also Section 6.4.3.1.).

In the interview, the use of the 1st-person singular was natural because in this task, personal issues were discussed. Why the classroom learners had such a high percentage of 1st-person forms in this task may have been because they replied to questions using the 1st-person

singular form often, but they did not supply their answers with comments or explanations, so that other personal forms also could have been used more frequently.

The 2nd-person singular was almost entirely used in the comic strips; the only example where the 2nd-person was used in the interview was a question that Pekka asked the interviewer (see example 159). There were even some differences between the comic strips. In comic strip 2, where the comic figures were arguing with each other, the informants produced 2nd-person singular forms more often than in comic strip 1. In comic strip 1, the percentage of 3rd-person plural forms was high in comparison to the other oral tasks. The pictures where the family members were acting collectively, where they ate breakfast and visited a café together, induced the use of these forms most obviously. A noun in the plural form, *the shoes*, which was important in comic strip 1, also meant that 3rd-person plural forms were frequently used in comic strip 1.

Examples (321) to (325) present the personal forms used in the production of the bilinguals:

- 321) (Missäs muualla olet asunu?) Pekka: No minä synnyin A-ssa / asuttiin B-ssä puol vuotta / muutettiin C-hen ja asuttiin siellä kuus vuotta / (Pekka BL, I)
I born+PAST+SG1 A+INE, live+PASS+PAST B+INE half year+PAR /
move+PASS+PAST C+ILL and live+PASS+PAST there six year+PAR
'(Where else have you lived?) Pekka: I was born in A, then we lived in B a half year we moved to C and then we lived there six years.'
- 322) Äiti sanoo isälle että sä itse luet sarjakuvia. Anna se nyt takasin. (Mari BL, C2)
Mother say+SG3 father+ALL that you self read+SG2 comic-strip+PL+PAR.
Give+IMP+SG2 it+ACC now back
'The mother says to the father that you read comic strips yourself. Give it back now.'
- 323) (No entäs sit se viimeinen?) Tiina: No siinä ne varmaan keskustelee / niistä kengistä ja isä sannoo että ehkä ne oli vähä kalliit mutta äiti sannoo varmaan että kyllä se kai / joskus pittää ostaa vähän kalliita kenkiä. (Tiina BL, C1)
There they certainly discuss+SG3 those+ELA shoe+PL+ELA and father say+SG3 that perhaps they be+PAST+SG3 little expensive+PL but mother say+SG3 certainly that yes one perhaps sometimes must+SG3 buy+INF1 little expensive+PL+PAR shoe+PL+PAR
'(And what about the last picture?) Tiina: There they seem to discuss about those shoes and the father says that they were a little expensive perhaps but the mother seems to say that she thinks that sometimes one must buy little expensive shoes.'
- 324) (Ym-m. No entäs sitten / mitä tekisit jos voitaisit lotossa?) Anna: Ostan uuet kengät / (Ym-m. Aha.) Anna: ja ja... // ostan // koiran / (Ym-m). Anna: Ja antaa rahaa (Ymm)
Anna: isälle ja äidille. (Anna BL, I)
Buy+SG1 new+PL+ACC shoe+PL+ACC. And and buy+SG1 dog+ACC. And give+SG3 money+PAR father+ALL and mother+ALL.
'(And what would you do if you won the lotto?) Anna: I will buy new shoes and ... I will buy a dog. And I will give money to the father and mother.'
- 325) Mmm minä kävele... minä meen pyörällä. (Anna, I)
I walk I go+SG1 bicycle+ADE. 'I walk ... I take the bicycle.'

Example (321) shows how personal forms, especially 1st-person forms in the singular and plural, were used in the interview. A passive form was used as a 1st-person plural form in this example, as is usual in oral Finnish today. Example (322) demonstrates the use of the 2nd-person singular in comic strip 2, where this form was used frequently in dialogue. Example

(323) shows the use of the 3rd-person singular and plural forms in comic strip 1. Besides the forms already mentioned, other personal forms were used in these examples.

The bilinguals made a few errors in personal endings. An error in personal conjugation was presented in Section 6.6.1., where the use of the modal verb *pitää*, ‘must,’ was discussed (example 211). Because this verb was used in a special construction in Finnish, this error was not only an error of conjugation but it also was related to the mastering of the special modal construction in Finnish. In example (324), the error in personal conjugation was influenced by syntax: The verb *antaa*, ‘to give,’ was not conjugated in the 1st-person singular because it occurred in the last of three coordinated clauses. In example (325), the first verb was missing a personal suffix, but this was apparently because the informant changed her expression and used another verb afterwards.

I present the correct and incorrect personal forms in the production of the classroom learners in Table 7.25, which also shows the incorrect forms that substituted for correct personal forms. The number and percentages of correct and incorrect uses of different personal forms are presented in Table 7.26. After commenting on the tables, I will present examples from the classroom learners.

Table 7.25

Number and percentages of correct and incorrect personal forms in oral tasks of classroom learners. The table collects the forms that were used instead of correct forms: 3rd-person singular (= 3.p.sg), some other incorrect person (= other person), verb stem, or infinitive. The table also shows the number of repaired forms.

	Correct		3.p.		Other		Verb		Infinitive		Total		Re-		Total	
	forms	%	sg.	%	person	%	Stem	%		%	errors	%	pair	%	forms	
Berit	91	77	12	10	3	3	4	3	0	0	19	16	8	7	118	
Elin	49	96	2	4	0	0	0	0	0	0	2	4	0	0	51	
Rita	34	79	2	5	1	2	5	12	1	2	9	21	0	0	43	
Siri	50	81	2	3	1	2	4	6	1	2	8	13	4	7	62	
Vivi	57	80	1	1	9	13	2	3	0	0	12	17	2	3	71	
Total	281	81	19	6	14	4	15	4	2	1	50	14	14	4	345	

The personal forms presented in Table 7.25 included affirmative and negative verb forms. A negative verb form is a more complex verb form than the affirmative form. The personal form is found in the negative verb in Finnish. In Section 7.6.1, examples of negative conjugation were presented, and in Section 7.6.9, I presented the errors in affirmative and negative conjugation separately.

The 3rd-person singular form was used more often than other personal forms to substitute for other personal forms. This was natural because of the frequency of this form compared to other personal forms. Only 1 informant used the other persons more frequently than the 3rd-person singular to substitute for some other personal form. In addition, a verb stem was used

relatively frequently to substitute for personal forms. The 1st-infinitive form occurred only in a few examples. In some cases, the informants repaired an incorrect personal form they produced. Examples of such repairs are presented along with the examples.

Table 7.26

Correct and incorrect numbers and percentages of different personal forms in oral production of classroom learners

	Correct	%	Incorr.	%	Repair	%	Total
1.p.sg.	75	70	26	24	6	6	107
2.p.sg.	16	48	15	45	2	6	33
3.p.sg.	145	93	8	5	3	2	156
1.p.pl.	12	86	1	7	1	7	14
2.p.pl.	2	100	0	0	0	0	2
3.p.pl.	31	94	0	0	2	6	33
Total	281	81	50	14	14	4	345

The informants used the 3rd-person singular as the as 3rd-person plural often, so this form was considered correct because it is usual to use the singular form instead of the plural in the 3rd-person in oral Finnish. The plural forms were more correctly used in comparison to the 1st- and 2nd-person singular forms, but because the production was so low in the plural, it was difficult to compare the correctness of forms in the singular and the plural. In the singular, the informants seemed to master the 3rd-person singular better than the other personal forms. If one considers how correctly the classroom learners were able to produce the different personal forms, the 3rd-person singular seems to have been learned better than other personal forms. The verb stem of the 3rd-person singular is considered the basic form of Finnish verb (Karlsson 1983: 208).

On the other hand, the number of verb lexemes conjugated in the 1st-person singular was higher than the number of verb lexemes conjugated in the 3rd-person singular. There were 20 verb lexemes conjugated in the 1st-person singular, but only 13 verb lexemes in the 3rd-person singular; the negative verb *en/ei* was counted as a verb lexeme in both cases. The fact that the informants used one particular verb form, namely, the 3rd-person singular form *on* of the verb *olla*, ‘to be,’ extremely frequently explained the high percentage of correct 3rd-person singular forms. Actually, this one verb form covered 28% of all verb forms conjugated in person in the oral tasks. So, because the high percentage of correctness of the 3rd-person singular was based on the mastery of this one singular form, one may ask if the 3rd-person singular was an easier form to learn than the other forms. The 1st-person singular also seemed to be a form that the informants produced easily, if one looks at the number of verb lexemes conjugated in the 1st-person singular.

Examples (326) to (331) present the use of personal forms in the oral production of the classroom learners.

- 326) Minä ratsastan ja luen ja ehh... / katson televisio / (Berit BL, I)
I ride+SG1 and read+SG1 and / watch+SG1 television. 'I ride and read and watch TV.'
- 327) Sinä saat // ymm tä... tässä / kengät. (Vivi L2, C1)
You get+SG2 // here / shoes+PL+ACC 'You get shoes here' or 'You get these shoes.'
- 328) Ymm. Äiti sanoo / me kävelemme / kaupassa. (Rita L2, C1)
Mother say+SG3 / we walk+PL1 / shop+INE
'The mother says (that) we go to the shop.'
- 329) Minä tarvitsee uutet kengät. (Berit L2, C1)
I need+SG3 new+PL+ACC shoe+PL+ACC 'I need new shoes.'
- 330) Mikä sinä tekevät? (Berit L2, C2)
What you do+PL3? What do you do?
- 331) jaa iltapäivällä me menemme kenkäkauppaan ja osta / eh uusi kengät. Siri, C1.
Yes afternoon+ADE we go+PL1 shoe-shop+ILL and buy / new shoe+PL+ACC
'And in the afternoon we will go to the shoe shop and we will buy new shoes.'

Examples (326) to (328) present the correct uses of personal forms, and examples (329) to (331) present the incorrect uses of personal forms. A 3rd-person singular form was a substitute for a 1st-person singular form in example (329), and a 3rd-person plural form was a substitute for a 2nd-person singular form in example (330). The personal ending in the 3rd-person plural -*vAt* ends with *t*, which is the personal ending of the 2nd-person singular, and this fact perhaps influenced the confusion. In Table 7.7, similar errors were presented. In example (331), the errors in personal conjugation were related to syntax: There were two coordinated clauses and the verb was correctly conjugated in the 1st-person plural only in the first of them.

Sometimes, an incorrect form was changed to a correct one; in other words, the informants made self-repairs. Examples (332) to (334) present repairs of personal forms in the production of the classroom learners:

- 332) Me on / me olemme / kuusi. (Berit L2, I)
We be+SG3 / we be+PL1 / six. 'We are six.'
- 333) Sinä / ottaa / nei sinä (Ym-m). Sinä otat tämä / eh.. lehti / takaisin. (Siri L2, C2)
You / take+SG3 / no (Norw) you you take+SG2 this / magazine / back.
You take *nei* 'no' you. You take this magazine back.
- 334) Hän luen / luet / luee / eh // kirjaa. (Berit L2, C2)
She read+SG1 / read+SG2 / read+SG3 // book 'She reads the book.'

Berit and Siri corrected their production more often than the other informants, but Vivi also had some examples of self-repairs. All repairs of personal forms, except one, resulted in the correct forms. In example (332), Berit changed the 3rd-person singular form to the 1st-person plural. In example (333), Siri remarked using Norwegian that she noticed the 3rd-person singular form to be an incorrect form; afterwards, she produced the correct form. In example (334), Berit listed all the singular forms before she produced the 3rd-person singular form. The form *luee* actually was not a correct form, either, because she used a weak stem variant

instead of a strong one, obviously influenced by the two other singular forms with a weak stem variant. The personal ending, though, was correct.

According to Hokkanen, a self-repair means that the speaker becomes aware of the error, interrupts the speech production, and makes the repair. Such repairs are common not only in the production of language learners but also in the production of mother tongue speakers (2001: 142-143). Pauses before self-repairs indicated that the informants were thinking about the correct forms. Repairs show language monitoring, that is, one is paying attention to the form. So, it means a higher awareness of language. On the other hand, being over-vigilant may make communication difficult (Mitchell & Myles 1998: 37). In example (334), a ‘rule’ of classroom learning seemed to be used because the personal conjugation is often memorized in order from 1st person to 3rd person.

Berit produced the highest percentage of incorrect personal forms than the other classroom learners in the oral tasks. Because her production was much larger than the production of the other classroom learners, she also produced many correct forms as well as incorrect ones. Elin, who produced little, made only a few errors in the oral tasks. In the verb inflection task and in the written tasks, Elin made many mistakes with verb inflection. In comparison, Berit handled these tasks better than any other classroom learner.

Because Elin produced only a few verb lexemes in the oral tasks (see Table 5.1), her production included only a few forms of different verbs. Berit, on the other hand, produced many verb lexemes in the oral tasks and subsequently had many forms of different verbs. She produced all forms in the plural, but Elin produced only the 3rd-person plural. So, Berit seemed to have a better command of inflection in Finnish than Elin in many ways, but why did she make so many more mistakes in the oral tasks than Elin did?

The reason was that Elin produced many fragments. I present a segment of comic strip 2 (example 335) to demonstrate how Elin tried to figure out what to say and how she even got help from me.

335) (ja sitten siitä että he menevät tänne kauppaan / eikö niin? Ehkä heidän täytyy sanoa jotain siitä... /) Elin: Eeee (sopia että kun koulu on loppu sitten mitä sitten tapahtuu? Ehkä heidän täytyy sanoa jotain siitä? Luuletko?) Elin: Lapsi sanoo // minä (huokaa) (jaa-a. /// Ehkä hän sanoo: Minä..). Elin: Minä.../// (Jaa). Elin: Ha...(Ha... haluan...minä haluan) Elin: Minä haluan / uusi kengät. (Elin L2, C1)

Elin: Child say+SG3 // I

Elin: I want+SG1 new shoe+PL+ACC

‘(And then you can tell that they go to this shop can’t you? Perhaps they must say something about it?) Elin: Eeee (they must agree that... after the school is finished what happens then? Perhaps they must say something about it? What do you think?) Elin: The child says: I (sighs) (Yes. Perhaps she says: I...) Elin I... /// (Yes) Elin: Wa... (Want ... I want) Elin: I want new shoes.’

Example (335) showed that Elin did not complete her sentences because she could not find the words to continue. She also picked up verbs from me; sometimes, I even helped her. One may ask, then, if the last sentence *minä haluan / uusi kengät*, ‘I want new shoes,’ was Elin’s production or if she actually got too much help from me. Because she used the verb form

haluan independently later on in comic strips 1 and 2, I accepted this verb as one of hers. However, it is worth noting that she used this verb in the 1st-person singular most often, and only once in the 3rd-person plural. In the first comic strip task, she used only a noun phrase meaning ‘new shoes’ with this verb; in the second task, she used this verb with the noun *kuvakirja*, ‘the picture book.’ This verb was used with only a little variation in her production; therefore, it could be identified as an item-based construction, as described by Tomasello (2003: 308-309).

Berit, in comparison, produced her sentences independently. The reason she made many mistakes in her oral production was that there were too many things to master at the same time in planning an utterance and she was not able to concentrate only on the correct verb forms. However, examples of self-repair demonstrated that she sometimes monitored her own production. She was also able to correct her errors quite often.

7.5.6. Voice and personal forms in essays

In the essays, the bilingual informants sometimes used the passive voice. Table 7.27 presents the use of active and passive voice in the essays. The number of individual informants is presented in Appendix 29.

Table 7.27

Voice in essays of bilinguals

Active			Passive		Total	
Ind.	Cond.	Imp.	Ind.	Cond.	Ind.	Cond.
227	21	2	95	11	2	5

Examples (336) and (337) present the passive voice in the production of the bilinguals:

336) Minut vietiin lentokoneela Osloon jossa minut vietiin hienoon hotelliin. (Tiina BL, E1)
 I+ACC take+PASS+PAST airplane+ADE Oslo+ILL which+INE I+ACC
 take+PASS+PAST fine+ILL hotel+ILL ‘I was taken by the airplane to Oslo and there I was taken to a fine hotel.’

337) Tulevaisuudessa koulussa käytetään varmasti vain tietokoneita ja ei tarvita opettajaa. (Pekka BL, E2)
 future+INE school+INE use+PASS certainly only computer+PL+PAR and no+SG3
 need+PASS+NEG teacher+PAR
 ‘In future the computers are certainly used at the school and not any teacher is needed.’

The passive voice was used in both of the essays, so, it did not appear to be dependent on the genre, as the conditional seemed to be. In example (336), the passive form was in the past tense. The passive was used in the present tense in example (337), where both affirmative and negative forms of the passive were used. Examples of the passive in the pluperfect and the negative conditional were presented earlier (look at examples 202 and 272).

Table 7.28 presents the personal forms in the written tasks. The number of individual informants is presented in Appendix 30.

Table 7.28

Personal forms in essays. Number and percentages of 1st-person singular (= 1.p.sg.), 2nd-person singular (= 2.p.sg.), 3rd-person singular (= 3.p.sg.), 1st-person plural (= 1.p.pl.), 2nd-person plural (2.p. pl.), and 3rd-person plural (= 3.p.pl.) of bilinguals (BL) and classroom learners (L2).

	1.p.sg.	%	2.p.sg.	%	3.p.sg.	%	1.p.pl.	%	3.p.pl.	%	Total
BL	75	30	8	3	124	50	31	12	12	5	250
L2	72	30	7	3	116	47	24	10	30	12	249

Table 7.28 shows that the informant groups were quite similar in their use of the personal forms in the essays. The 2nd-person plural form was not used at all in the essays.

Examples (338) to (344) are from the bilinguals:

- 338) ”Hei Kalle, unohdit tämän.” (Kalle BL, E1)
Hello Kalle, forget+PAST+SG2 this+ACC ‘Hello, Kalle, you forgot this.’
- 339) Siellä voi olla ulkona jos haluat. (Anna BL, E2)
There can+SG3 be+INF1 out-of-doors if want+SG2
‘There one can be out of doors if you like.’
- 340) Ruoan jälkeen katoin telkkaria: 50 kilometriä perinteistä hiihtoa se oli tosi jännää ja Harri Kirvniemi voitti. (Pekka BL, E1)
Dinner+GEN after watch+PAST+SG1 television+PAR: 50 kilometre+PAR classic+PAR ski+PAR it be+PAST+SG3 very exiting+PAR and Harri Kirvesniemi win+PAST+SG3.
‘After the dinner I watched TV: 50 kilometres classic ski and it was very exciting and Harri Kirvesniemi won.’
- 341) Minä uskon että tietokoneet vallottaa koulun. (Tiina BL, E2)
I belive+SG1 that computer+PL take-over+SG3 school+ACC
‘I believe that the computers are going to take over at the school.’
- 342) Me otetaan linja auto kaupunkille. Me menemme lelutapulin. Sitte me mennään kahvilan. Me syömme donitseja. Sitten me menään kotin nukkumaan. (Anna BL, E1)
We take+PASS bus town+ALL. We go+PL1 toy-shop+ILL. Then we go+PASS café+ILL. We eat+PL3 cake+PL+PAR. Then we go+PASS home+ILL sleep+INF3+ILL.
‘We take the bus to the town. We go to the toy shop. Then we go to the café. We eat cakes. Then we go home to sleep.’
- 343) Tulevaisuudessa opetajat on kiltejä ja oppilaat ja opetajat ovat melkein ystäviä. (Mari, E2)
Future+INE teacher+PL be+SG3 kind+PL+PAR and pupil+PL and teacher+PL be+PL3 almost friend+PL+PAR.
‘The teachers are kind in future and the pupils and the teachers are almost friends.’
- 344) Jo, se olisi hauska, mutta en mä tiedä saank lupa,” minä sanoi. (Mari BL, E1)
Yes, it be+CON+SG3 nice but no+SG1 I know+NEG get+SG1+Q permission,” I say+PAST+SG3
‘Yes, it could be nice but I don’t know if I will get the permission, I said.’

The 2nd-person forms indicated the use of dialogue. Those informants who wrote dialogue in their essay also used the 2nd-person singular, as in example (338). In example (339), the 2nd-person singular referred to a generic person because it was used to mean ‘one’ or ‘everybody.’

In this example, Anna first used the impersonal verb; the subject of the first sentence was a zero person, but in the following subordinate clause, she used the 2nd-person singular in a general meaning. The last use of the 2nd-person singular, that is, in reference to people in general, did not belong to Finnish language usage originally, although this kind of general use of the 2nd person can be found in Finnish today as the result of language contacts.⁵⁹ Anna, besides using the 2nd-person singular in a general meaning, also used a zero person and an impersonal verb form (3rd-person singular form) often (look at examples 291 & 292).

The 1st-person singular forms indicated a personal style, and they were used more in essay 1 (example 340) than in essay 2. In essay 2, some of the informants either imagined that they were pupils in a future school or they wrote about their opinions of the school in future, as in example (341). Consequently, there were many 1st-person forms in the essays.

The bilinguals used both the active form with the ending *-mme* and the passive form as the 1st-person plural. Only one of the bilinguals, Kalle, used only 1st-person singular forms with the personal ending *-mme*. In comparison, Pekka used only passive forms as 1st-person plural forms. Anna and Mari produced both kinds of 1st-person plural forms, although these informants chose the plural 1st-person form with *-mme* with the incorrect stem variant in the multiple-choice task, and not the correct passive variant (look at Table 7.15). Therefore, the incorrect choice in the multiple-choice task did not indicate that these informants did not know the oral 1st-person plural passive use because they used this form themselves. Example (342) shows how Anna used both forms of the 1st-person plural in her essay. However, the same construction seemed to be more difficult when it was negative (see Table 7.17; examples 247 & 273).

Both forms with the ending *-vat/vät* and forms similar to the 3rd-person singular were used in the 3rd-person plural. The last form is usual as a form of the 3rd-person plural in oral Finnish today (example 343). The bilinguals produced the personal endings correctly, with one exception: Mari used the 3rd-person singular instead of the 1st-person singular in example (344).

Examples (345) to (350) are from the classroom learners:

- 345) Ola: Oletko ollut Norjassa aiemmin? Leena: Ei, olen täällä ensimmäistä kertaa. (Rita, E2)
 Ola: Be+SG2+Q be+PCP Norway+INE earlier? Leena: No, be+SG1 here first+PAR time+PAR. 'Ola: have you been in Norway earlier? Leena: No, I am here for the first time.'
- 346) Lapsillesi toivot hyvä koulu. (Siri, E2)
 Child+PL+ALL+POS hope+SG2 good school
 'You hope that your children will get a good school.'
- 347) Minä kävelen talolle. Talo on punainen se on hieno. - Minä rakastan sinua, minä kuiskan. (Berit, E1)
 I walk+SG1 house+ALL. House be+SG3 red it be+SG3 fine. I love+SG1 you+PAR, I

⁵⁹ Laitinen pointed out that the impersonal use of the 2nd person seems to become more frequent in Finnish today. This use has been interpreted as a new phenomenon resulting from the language contact with English. However, in the eastern dialects of Finnish, the impersonal 2nd person use occur as a result of contacts with the Russians (1995: footnote 16). The impersonal 2nd person use is also known in Scandinavian languages.

whisper+SG1.

‘I walk to the house. The house is red it is fine. – I love you, I whisper.’

- 348) Minä toivon että tulevaisuuden koulu on kiva. (Vivi, E2)
I hope+SG1 that future+GEN school be+SG3 fun.
‘I hope that the school in the future is fun.’
- 349) Me kullamme musiiki ja se on hyvä. (Rita, E1)
We here+INF1+PL1 music and it be+SG3 good.
‘We listen to the music and it is good.’
- 350) Kaiki tarvita koulutus. He eivät lukee kirja; he luevät tietkone, ja he eivät tarvitaa opetajat.
(Siri, E2)
All need+INF1 education. They no+PL3 read+SG3 book, they read+PL3 computer, and
they no+PL3 need+INF1+SG3 teacher+ACC
‘Everybody needs education. They don’t read any books, they use (read) the computer,
and they don’t need teachers.’

The 2nd-person singular also was used in a dialogue in the production of the classroom learners. Essay 2 by Rita was written as a dialogue; consequently, it included not only many 2nd-person singular forms but also 1st-person singular forms, as in example (345). The 2nd-person singular was also used to refer to a person in general in the production of the classroom learners, as in example (346).

The 1st-person singular was used in a dialogue, as in example (347); in addition, the 1st-person singular and 3rd-person singular forms were used in narration in this example. In example (348), the 1st-person singular was used in essay 2 when the informant wrote about her opinions about the school. In example (349), the 1st-person plural form was used in essay 1. The classroom learners used only the 1st-person plural active form.

The classroom learners used more 3rd-person plural forms than the bilinguals in the essays. Siri in particular used many 3rd-person forms. In example (350), the 3rd-person plural was used in a generic meaning. The pronoun *he*, ‘they,’ was missing a clear referent in this example; it referred to indefinite person(s) in the text in the same way a passive form functions in Finnish (see Hakulinen & al. 2004: 1268).

The classroom learners did not always match the mapping of personal pronouns to the correct personal endings. Table 7.29 presents the correct and incorrect personal forms in the essays; Table 7.30 presents the correct and incorrect uses of the different personal forms in the essays.

Table 7.29

Number and percentages of correct and incorrect personal forms in essays of classroom learners. The table collects the forms that were used instead of correct forms; these were 3rd-person singular (= 3.p.sg) and some other incorrect person (= other person), infinitive, or noun

	Correct form	%	3.p.sg.	%	Other person	%	Infinitive	%	Noun	%	Total incorr.	%	Total
Berit	64	98	0	0	1	2	0	0	0	0	1	2	65
Elin	30	71	2	5	8	19	2	5	0	0	12	29	42
Rita	44	92	1	2	1	2	2	4	0	0	4	8	48
Siri	53	88	2	3	1	2	3	5	1	2	7	12	60
Vivi	33	97	0	0	1	3	0	0	0	0	1	3	34
Total	224	90	5	2	12	5	7	3	1	0,4	25	10	249

The classroom learners made fewer errors in the essays than in the oral tasks in the personal forms, with one exception: Elin made more errors in the essays than she made in the orals. In comparison, both Berit and Vivi produced only a few errors in the personal forms in the essays, though these 2 informants produced the most errors in the oral tasks. The number of errors in the oral tasks seemed to be related to large production; in the written production, there was not such a clear relation between large production and the number of errors in the personal forms. When writing, one may use declarative knowledge to evaluate the correctness of production (Hulstijn 2002:210).

There were more errors where some person, other than the 3rd-person singular, was used incorrectly instead of a correct personal form in the essays than there were in the oral tasks. This was because Elin made many such errors in the essays. A verb stem was used instead of a personal form only in the oral tasks; the infinitive was used to substitute for a personal form more often in the essays than in the oral tasks.

Table 7.30

Correct and incorrect number and percentages of different personal forms in essays of classroom learners

	Correct	%	Incorrect	%	Total
1.p.sg.	66	92	6	8	72
2.p.sg.	6	75	2	25	8
3.p.sg.	104	90	11	10	115
1.p.pl.	22	92	2	8	24
3.p.pl.	26	87	5	13	30
Total	224	90	26	10	249

Examples (351) to (356) present errors made in the personal forms in the production of the classroom learners:

- 351) Kun minä on kotona, minun äiti oli leipoi pulla.
(Siri L2, E1) When I be+SG3 home+ESS.
'When I am at home, my mother had baked buns.'
- 352) Äidi vastan kyllä! (Elin L2, E1)
Mother answer+SG1 yes 'The mother answers yes!'
- 353) Sitten me istumme minun katosvuodella ja nauravat . (Siri L2, E1)
Then we sit+PL1 I+gen canopy-bed+ADE and laugh+PL3 'Then we sit on my canopy bed and laugh.'
- 354) Minä syömme makkara ja juon limsa. (Berit L2, E2)
I eat+PL1 sausage and drink+SG1 soda. 'I eat sausage and drink soda.'
- 355) On eräs hieno päivä, paljon tapahtua, (Rita L2, E1)
Be+SG3 one fine day, much happen+INF1 'It is a fine day, much is happening.'

In example (351), the 3rd-person singular was used instead of the 1st-person singular. Elin used the 1st-person singular to substitute other personal forms frequently; in example (352), the 1st-person singular was used instead of the 3rd-person singular. The 3rd-person plural was used instead of the 1st-person plural in example (353). This error was related to the sentence structure because in the second of the two coordinated clauses, there ought to have been the same subject person as in the first clause, which was the 1st-person plural. In example (354), the 1st-person plural was used instead of the 1st-person singular. In this example, the correct personal form was used in the second of two coordinated clauses. The infinitive form was used instead of personal form in example (355), where the writer did not refer to a person but the meaning of this clause was generic. In Finnish, the 3rd-person singular, not the infinitive form, is used to express generic meaning (Hakulinen & al. 2004: 1286).

It was not always easy to explain the incorrect use of personal forms. Some errors were related to syntax, but some errors seemed more casual. There were no clear tendencies, either, in which forms substituted for other forms.

7.5.7. Verb string constructions in oral tasks

In this section, I present the verb string constructions of the informants in the oral tasks. Table 7.31 presents the number and types of verb string constructions. The number of individuals is presented in Appendix 31.

Table 7.31

Verb string constructions in oral tasks of bilinguals (BL) and classroom learners (L2). Verb string constructions were constructions with finite verb + 1st infinitive (= type 1), finite verb + 3rd infinitive (= type 2), finite verb + 1st infinitive + 3rd infinitive (= type 3), and finite verb + 1st infinitive + 1st infinitive (= type 4).*

	Type 1	Type 2	Type 3	Type 4	Total	Total
					Constructions	Infinitives **
BL	69	18	4	2	93	99
L2	16	0	0	0	16	20

* The classroom learners did not always use the 1st-infinitive form after the finite verb, which is the pattern of Finnish; sometimes, they used a finite verb followed by another finite verb.

** The difference between the number of constructions and the number of infinitives (or finite verbs in function of infinitives) was caused by the self-repairs in production of the classroom learners. The same difference in the production of bilinguals was caused by the fact that one main verb may have had more than one infinitive.

As Table 7.31 shows, Type 1 construction with finite verb + 1st infinitive was the most frequent type in the production of the bilinguals, and it was the only verb string construction type used by the classroom learners. Complex constructions with many verbs (Types 3 & 4) were used seldom.

Figure 7.4 presents the main verbs used in the constructions with the 1st infinitive. All constructions that include the 1st-infinitive form (Types 1, 3, & 4) were counted in Figure 7.4.

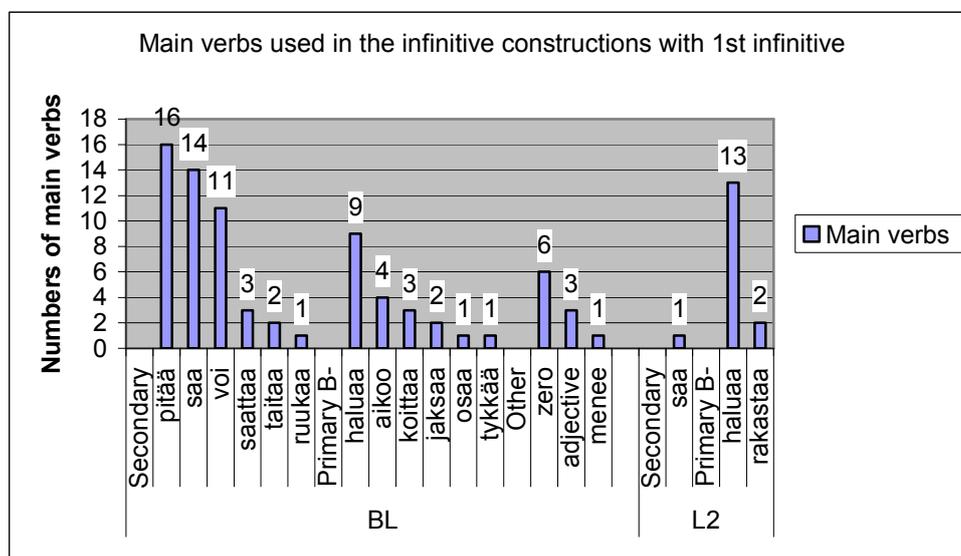


Figure 7.4. Number and types of main verbs in verb string constructions with 1st infinitive in production of bilinguals (BL) and classroom learners (L2) in oral tasks. Verb string constructions of the classroom learners can also be the finite verb + finite verb. Figure 7.4. presents the main verbs that were secondary verbs (= secondary) or primary B verbs (= primary B; See chapter 6). The category *Other* included answers where the main verb was produced only in the interviewer’s question, not by the informant (= zero), constructions with *olla* + adjective (= adjective), and a construction with the verb *mennä*.

Examples (356) to (359) of verb string constructions are from the bilinguals:

- 356) Äiti sanoo että pittää / saaha lukkee mitä haluvaa / melkein. (Pekka, C2)
 Mother say+SG3 that must+SG3 be-aloud+INF1 read+INF1 what+PAR want+SG3
 ‘The mother says that one must get the permission to read almost everything one wants to.’
- 357) Se sanoo että se ei halua mennä nukkumaan. (Anna, C1)
 She say+SG3 that she no+SG3 want+NEG go+INF1 sleep+INF3+ILL
 ‘She says that she doesn’t want to go to sleep.’
- 358) Ei oo hyvä / hänelle luetas sitä. (Mari, C2)
 No+SG3 be+NEG good / she+ALL read+INF1 it+PAR
 ‘It is not good for her to read it.’
- 359) (Mitä sää ajattelit tänään tehdä koulun jälkeen?) Anna: Mennä kotiin /(Aha. Ym-m).
 Anna: jaa...// jaa / syöä. (Anna BL, I)
 Anna: Go+INF1 home+ILL / and // and / eat+INF1
 (What did you plan to do today after the school?) ‘To go home and... and to eat.’

The main verb was a modal verb most often in verb string constructions with the 1st infinitive. The modal verbs *pittää*, ‘must’; *saa*, ‘is allowed’; and *voi*, ‘can, is able’ were used the most often with the 1st infinitive in the orals. Besides these modal verbs, there were other modal verbs used by the 1st-infinitive argument, such as *saattaa* and *taitaa*. *Ruukaa* is an aspectual verb that takes a 1st-infinitive argument. Examples of modal verbs as main verbs in verb string constructions were presented in Section 6.5.5. Example (356) presents a modal used in a complicated verb string construction that included three verbs. This construction is Type 4 (look at Table 7.31).

In addition, secondary B verbs, most often cognitive verbs, can take a 1st-infinitive argument. There was only one verb of emotion, *tykätä*, ‘to like,’ which took an infinitive argument in the production of the bilinguals. In example (357), the cognition verb *haluta*, ‘to want,’ was used as a main verb in an infinitive construction with three verbs; it was an example of Type 3 construction (see Table 7.31). More examples of cognitive verbs in verb string constructions were presented in Section 6.4.1.3.

The 1st infinitive can also be used with the verb *olla*, ‘to be,’ and an adjective, as in example (358). In some cases, the main verb occurred in the question of the interviewer, but the informant did not repeat it, as in example (359). Such examples were collected in a class called *zero* in Figure 7.4. The verb *meneä*, ‘to go,’ was used with a 1st-infinitive argument once (see example 61).

Examples (360) to (364) are from the classroom learners:

- 360) Isa / ja äiti ei halua lue luevat sarjakuvaa. (Berit L2, C2)
 Father / and mother no+SG3 want+NEG read read+PL3 comic-strip+PAR
 ‘The father and the mother do not want to read the comic strip.’
- 361) / Ymm... minä haluan / lukee / viisi minuuttia. (Rita L2, C2)
 I want+SG1 / read+INF1(SG3) / five minute+PAR ‘I want to read five minutes.’

- 362) / Minä en / haluan kävellä kouluun. (Siri L2, C1)
I no+SG1 / want+SG1 walk+INF1 school+ILL ‘I do not want to walk to school.’
- 363) Haluan luen // luen. (Siri L2, C2)
want+ SG1 read+SG1 // read+SG1 ‘I want to read.’
- 364) Minä / rakastan / lue. (Siri L2, C2)
I love+SG1 / read ‘I love to read.’

In the production of the classroom learners, the verb string constructions were most often constructions where the main verb was the cognition verb *haluta*, ‘to want,’ as in examples (360) to (363). They also used the emotion verb as a main verb in verb string constructions in a few cases, as in example (364; look at Section 6.4.1.1 for more examples). Unlike the bilinguals, the classroom learners did not use modal verbs, with the exception of Elin, who used the verb *saa*, ‘be allowed,’ as a finite verb in an infinitive construction. This example, however, seemed to be without any context (example 223).

The classroom learners sometimes used the 1st-infinitive form of the second verb in the verb string construction as it is used in Finnish; other times, they used a finite verb instead of the 1st-infinitive form. In example (360), Berit produced a verb stem first, but she repaired this form and used a personal form of a verb. Rita used the 1st-infinitive form correctly, but she also produced the form *lukee*, as in example (361), which can be either a 3rd-person singular form or an infinitive form in oral Finnish. So, it was not clear which of these forms she actually used in this example. Siri used both the correct 1st-infinitive form, as in example (362), and the finite verb conjugated in 1st-person singular, as in example (363), in her verb string constructions. The repetition of the finite verb after a pause eventually indicated that she was thinking of the correct form in example (363). In example (364), she used the verb stem instead of the 1st-infinitive form.

Cognition verbs and modal verbs in particular often take infinitive arguments. There were few such verbs in the oral production of the classroom learners, and as a result, they did not produce many infinitive constructions. Because verb string constructions are related to increasing complexity in language development (Tomasello 2003: 245-249), the low numbers of these constructions in the production of the classroom learners provided evidence of the developmental stage of their language compared to the bilinguals, as already pointed out in chapter 6.

Figure 7.5 presents verb string constructions with the 3rd-infinitive form in the production of the bilinguals. The classroom learners did not use the 3rd infinitive forms because these forms did not occur in their input.

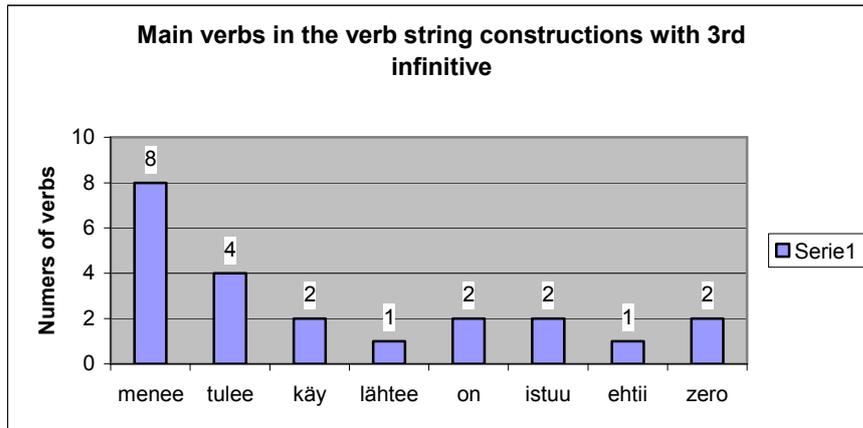


Figure 7.5. Main verbs in verb string constructions with 3rd infinitive in production of bilinguals in oral tasks

Example (365) presents a construction with the 3rd-infinitive form:

- 365) Tyttö on ainaki varmaan tyytyväine ku istuu hymyilemässä. (Tiina, C1)
 Girl be+SG3 in-any-case apparently happy because sit+SG3 smile+INF3+INE
 ‘The girl is happy apparently in any case because she is sitting and smiling.’

The finite verb was most often a motion verb in the constructions, including the 3rd infinitive. More examples of motion verbs like *mennä*, ‘to go’; *tulla*, ‘to come’; *lähteä*, ‘to leave’; and *käydä*, ‘to go,’ having a 3rd-infinitive argument were presented in Section 6.3.3.1 (examples 69 & 99). In addition, the copula verb *olla*, ‘to be’ (example 13), and a verb of space, *istua*, ‘to sit,’ were sometimes used in constructions with the 3rd infinitive. There was only one example where an aspectual verb, *ehtii*, ‘to have time,’ was followed by a 3rd-infinitive form (example 233).

7.5.8. Verb string constructions in essays

Table 7.32 presents the verb string constructions in the essays. Individual numbers are presented in Appendix 32. There were also two 1st-infinitive forms not used in the verb string constructions in the production of the classroom learners. These infinitives were not substitutions of personal forms; these infinitives will be presented in this chapter when I present the examples, but they were not included in Table 7.32.

Table 7.32

Verb string constructions in essays of bilinguals (BL) and classroom learners (L2). Verb string constructions were constructions with a finite verb + 1st infinitive (= type 1); a finite verb + 3rd infinitive (= type 2); a finite verb + 1st infinitive + 3rd infinitive (= type 3); and a finite verb + 1st infinitive + 1st infinitive (= type 4).*

* The classroom learners did not always use the 1st-infinitive form after the finite verb, which is the pattern of Finnish, but they did use a finite verb followed by another finite verb.

	Type 1	Type 2	Type 3	Type 4	Total Constructions	Total Infinitives
BL	23	10	2	0	35	37
L2	9	0	0	1	10	11

As in the oral tasks, Type 1 also dominated in both informant groups in the essays. The classroom learners did not use any constructions with the 3rd infinitive (Type 2) either in the essays. Figure 7.6 presents the main verbs used with the 1st infinitive in both informant groups.

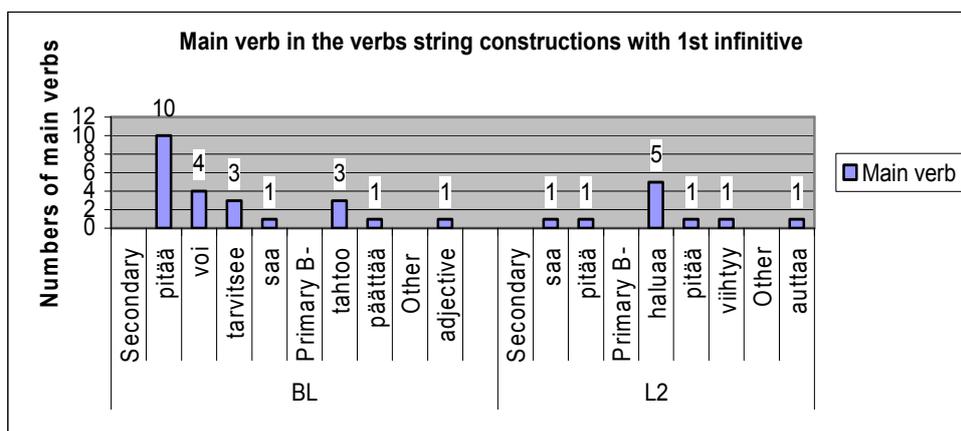


Figure 7.6. Number and types of main verbs in verb string constructions with 1st infinitive in production of bilinguals (BL) and classroom learners (L2) in essays. The verb string constructions of the classroom learners were sometimes constructions of finite verb + finite verb. Figure presents main verbs that were secondary verbs (= secondary), primary B verbs (= primary B). The category *Other* included constructions with *olla* + adjective (= adjective) and a construction with the verb *auttaa*, ‘to help.’

First, I present the examples of verb string constructions with the 1st infinitive of the bilinguals; afterwards, I comment on Figure 7.6.

- 366) Siellä voi istua ja syä. (Anna BL, E2)
There can+SG3 sit+INF1 and eat+INF1 ‘There one can sit and eat.’
- 367) He kysyvät minullta että tahdonko tulla laulamaan yhteen esittelyyn. (Tiina BL, E1)
want+SG1+Q come+INF1 sing+INF3+ILL one+ILL performance+ILL
‘They ask me if I want to come and sing in one performance.’
- 368) koska sitten olisi paljon hauskeempaa olla koulussa. (Tiina BL, E2)
Because then be+CON+SG3 much nicer+PAR be+INF1 school+INE
‘Because then it could be much nicer to be at school.’

The main verb in the verb string constructions was a modal verb most often in the production of the bilinguals, as in example (366), where the modal verb had two coordinated 1st-infinitive arguments. More examples are presented in Section 6.5.2

The 1st infinitive occurred as an argument of primary B verbs quite seldom in the essays of the bilinguals. Cognitive verbs had both sentence arguments and nominal arguments, besides infinitive arguments (see Section 6.4.1.4). Example (367) was a verb string construction that included three verbs (construction Type 3 in Table 7.32). The first of these was the cognition verb *tahtoa*, ‘to want,’ which had a 1st-infinitive argument; the second was a motion verb that took an argument in the 3rd infinitive. More examples of cognition verbs taking infinitive arguments were presented in Section 6.4.1.4. Once, the 1st infinitive was used in a state structure construction with an adjective and the verb *olla*, ‘to be’ (example 368).

Examples (369) to (372) are from the classroom learners:

- 369) Minä en haluan tehdä valituksen. (Rita L2, E2)
I no+SG1 want+SG1 make+INF1 complaint+ACC ‘I don’t want to make a complaint.’
- 370) Minä haluan ratsatan. (Berit L2, E1)
I want+SG1 ride+ SG1 ‘I want to ride.’
- 371) Marion: Hauska tutustua. (Rita L2, E2)
Marion: Nice meet+INF1 ‘Marion: Nice to get to know you. (= Nice to meet you.)’
- 372) Jälkeen syödä me katsomme filmi. (Rita L2, E1)
After eat+INF1 we watch+PL1 film ‘After eating we watch the film.’

The classroom learners used the verb *haluta*, ‘to want,’ as the main verb in verb string constructions in the essays the most often, as in examples (369) and (370). This verb was the cognition verb, which the classroom learners seemed to know the best because it was frequently used not only in the written tasks but also in the oral tasks. Modal verbs were seldom used as main verbs in verb string constructions; there were only two examples. One of them is (example 94), which was an example of the Type 4 construction in Table 7.32. The classroom learners also produced some sentences where an emotional verb like *pitää* ‘to like,’ and *viihtyä*, ‘to feel comfortable,’ took an infinitive argument, which was a transfer error from Norwegian (examples 156 & 158).

In example (369), the main verb was followed by a 1st-infinitive form, but in example (370), both verbs in the verb string construction were finite verbs inflected in 1st-person singular. The classroom learners produced both types of constructions not only in the oral tasks but also in the essays.

Examples (371) and (372) were not verb string constructions. In example (371), Rita used a common phrase where the 1st-infinitive form was used with an adjective. In example (372), the 1st infinitive had a temporal meaning. The classroom learners used the verbs with verb arguments more often in the essays when compared to the orals, which demonstrated again the difference between the oral tasks and the written tasks. However, there were only a few constructions used with the modal and cognitive verbs in the essays. The classroom learners produced most often only one type of these constructions.

Figure 7.7 present the main verbs in constructions with the 3rd infinitive in the production of the bilinguals.

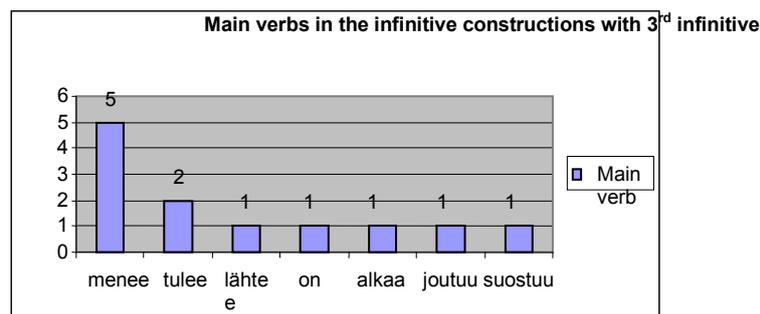


Figure 7.7. Main verbs in verb string construction with 3rd infinitive in the production of the bilingual in the oral tasks.

Examples (373) and (374) present the 3rd-infinitive forms in the production of the bilinguals.

373) Siten mentiin kysymän, ja äiti sanoi jo. (Mari, E1)
 The go+PASS+PAST ask+INF3+ILL and mother say+PAST+SG3 yes
 ‘Then we went to ask, and the mother said yes.’

374) Minä suostuin laulamaan. (Tiina, E1)
 I agree+PAST+SG1 sing+INF3+ILL ‘I agreed to sing.’

The 3rd infinitive was used with motions verbs most often in the essays. In example (373), a motion verb, *mennä*, was used with the 3rd-infinitive illative. More examples were presented in Section 6.4.3.2. An example where the verb *olla*, ‘to be,’ was used with the 3rd-infinitive form is presented in Section 6.3.3. A speech act verb, *suostua*, ‘to agree,’ was used in a construction with a 3rd infinitive, as in example (374). Examples where the 3rd-infinitive form was used with a modal verb, *joutua*, ‘to be compelled to,’ or an aspectual verb *alkaa*, ‘to begin,’ were presented in Sections 6.5.2 and 6.5.4.

7.5.9. Errors in oral tasks

Errors collected in this chapter included both morphosyntactic and morphophonological errors made in the orals. I do not present phonological errors, that is, errors made in vowel harmony. Morphophonological errors are made in stems, for example, errors made in consonant gradation or other errors made in verb stems. Morphosyntactic errors occur in the conjugation categories tense, mood, and person (see Karlsson 1983: 224). Both errors in affirmative,

negative, and questions forms of verb were gathered, as well as errors in verb string constructions.

Table 7.33 gathers all of the errors made in the oral tasks. Errors made in affirmative and negative verbs forms are presented separately.

Table 7.33

Errors in oral tasks of bilinguals (BL) and classroom learners (L2)

	BL		Total	Total, type	L2					Total	Total, type
	Anna	Mari			Berit	Elin	Rita	Siri	Vivi		
Affirmative forms											
Error type 1											
Incorrect personal suffix	2	0	2	2	12	0	2	3	10	27	27
Error type 2											
Gradation error	1	0	1		3	0	0	1	0	5	
Other stem error	0	4	4	5	2	0	0	1	0	2	7
Error type 3											
Verb stem as finite verb	0	0	0		4	0	5	4	2	15	
First infinitive as finite verb					0	0	1	1	0	2	
Finite verb as first infinitive					5	0	0	3	0	8	
Indicative form as imperative					1	0	0	0	0	1	
Question particle not used	0	0	0	0	1	1	1	3	3	9	35
Negative forms											
Main verb											
Affirmative verb used	2	0	2		5	2	0	1	1	9	
Other form error	0	0	0	2	1	0	0	0	0	1	10
Negative verb											
Incorrect personal suffix				0	3	2	1	0	0	6	6
Total, orals	5	4		9	37	5	10	17	16		85

Errors made in the affirmative sentences were categorised by error type. Error Type 1 gathered the incorrect use of the personal suffix. These errors were analysed more closely in Section 7.5.5. Type 2 errors were made in the verb stems; these errors were not presented in earlier chapters, so I present them in this chapter. Type 3 errors included different form errors; these errors also were presented in earlier chapters. Verb stems and 1st infinitives used as personal forms were presented in Section 7.5.5, finite verbs used as 1st infinitives in verb

string constructions were presented in Section 7.5.7, an error made by the imperative form was presented in Section 7.5.3, and errors in questions were presented in Section 7.5.1. Errors in negative verb forms were presented in the same chapter. Another form error was the negative perfect form (example 302, Section 7.5.3)

Examples (375) to (378) present stem errors in the oral production of the bilinguals:

- 375) Mitä sinä luket? (target: *luet*) (Anna BL, C2)
'What do you read?
- 376) No nyt sä voit lueta sarjakuvia minun kanssa. (target: *lukea*) (Mari BL, C2)
Now you can read comic strips with me.
- 377) (Mitä sä luulet että isä sanois semmosessa tilanteessa?) Mari: Mikset ottanut ne halvemmat? (Ymm. Entäs äiti?) Mari: Ymm. Hän ei halunut niitä. Hän haluasi ne / kalleimmat. (target: *halusi*) (Mari BL, C1)
(What do you think that the father will say in such a situation?) M: Why didn't you not take those cheaper ones? (And the mother?) M: She did not want them. She wanted those / more expensive.
- 378) Ymm. Eh. Miksi ottasi / ottasit / otit / sarjakuvan (Mari BL, C2)
Why did you take the comic strip?

Anna used a strong consonant gradation instead of a weak one in example (375). The consonant gradation in the verb *lukea*, 'to read,' was of the type *k: zero*, which seemed to be a difficult one to master, as already noticed (see Table 7.8). In example (376), the verb *lukea* from Type I was conjugated according to the paradigm of verb Type II *lueta*. This stem error was a paradigm mixing error. The 1st-infinitive form *lueta* was not an occasional slip in Mari's production: She produced this form three times (look also at example 358); therefore, this form seemed to have a representation in the mental lexicon. Similar mixing of infinitive forms in different inflectional verb types has been found in Finnish child language (Niemi & Niemi 1985: 165; Riionmaa 2002: 262).⁶⁰ The form is also an existing form in Finnish, namely, the negative past tense passive *ei lueta*. Passive forms are quite frequent because they are used to substitute for the 1st-person plural form, so the form *lueta* may have a stronger lexical strength than the infinitive form *lukea*. The form *lueta* was stored with suffix probably and not made up from a stem and a suffix. According to Bybee, the frequent use of a form causes its lexical strength and whole word forms can be stored (1985; 1988; 2003: 113-116). Because 1st-infinitive forms and negative passive forms are similar in all other conjugation types except Type I, the form *lueta* used as 1st infinitive is an analogical form, and it was formed using product-oriented schema (see Bybee 2003: 126-127).

In example (377), the verb form *haluasi* pro *halusi*, 'wanted,' was a past tense form, as the longer context demonstrated. This form could have been interpreted as a conditional form, but the use of the conditional did not suite the context: The shoes were already bought when the mother said her lines. The form *haluasi* included the present tense stem *halua-* and the past tense ending *-si*. According to Karlsson (1983: 303), the combination *si* is restructured as a past tense morpheme; historically, it is a combination of the stem consonant *s* + past tense

⁶⁰ Riionheimo presented, among other forms, the form *lueta* 'lukea.' Look also at Niiranen (2004: footnote 6) which presents a mixing of the 1st- infinitive forms of bilingual children.

morpheme *i*. The past tense suffix *-si* was connected directly to the present tense stem in the form produced by Mari, so this form was a more regular form than the target form *halusi*, where a vowel in the stem is lost in the past tense, in comparison with the present tense stem. This form was produced using a source-oriented schema because the past tense suffix was added to a verb stem and paradigmatic forces were not involved in this process (see Croft & Cruse 2004:301).

Example (378) also shows that the past tense form was produced using the present tense stem + *si* as a suffix for the past tense. This example was a repair (see Hokkanen 2001: 142-143), so it was not counted as an error because the correct form was produced at last. Mari corrected the verb form *ottasi* twice. The first form that she produced was the present tense stem *otta-* + past tense suffix *si*; the personal ending was lacking. So, this form was, in principle, the same form as *halua + si*. Mari first suggested *ottasit*, a form in which the personal ending was added, but which otherwise was the same as the first one. The last form, *otit*, is the correct one. This example demonstrated again the mixing of the paradigms between inflectional Type I and Type II. It also showed that the suffix *-si-* had a tendency to expand its use to other verb paradigms (look at Karlsson 1983: 303). Examples of mixing between the two past tense allomorphs are found in American Finnish and in the production of second language learners (Martin 1993: 98). Lindgren also noticed a similar kind of mixing in Kven, though only in slips-of-the-tongue material (1993: 108). Product-oriented schema is in use in paradigmatic mixing (see Bybee 2003: 126-129; Croft & Cruse 2004: 300-302).

Examples (379) to (382) illustrate stem errors in the production of the classroom learners:

- 379) Mitä te tekette? (target: *teette*) (Berit BL, C2)
'What do you do?'
- 380) He lue / he luevat. (target: *lukevat*) Siri, C2
'They read.'
- 381) Minä rakkastan kallis kengät. (target: *rakastan*) (Berit L2, C1)
'I love expensive shoes.'
- 382) Minä myös / eh haluaan / luen / tämä sarjakuva. (target: *haluan*) (Berit L2, C2)
'I want to read this comic strip, too.'

In example (379), the verb *tehdä*, 'to make,' included the alternation *k: zero*, and the strong form was used instead of the correct weak stem variant. In example (380), there was a generalisation of a weak stem variant in the verb *lukea*, 'to read,' which also included a consonant alternation *k: zero*. The strong stem variant is suggested to be the basic form of verb in Karlsson (1983:208), but because a weak stem is used to substitute for a strong stem it is a piece of evidence that not only the strong stem but also the weak stem can be stored in the mental lexicon. Siri used only the weak stem alternative of the verb *lukea* in her oral production; therefore, it was an example of the one-to-one principle because only one stem variant is connected to one meaning (see Andersen 1990: 52; 1993: 329).

The verb *rakastaa*, 'to love,' did not have any consonant gradation. Berit, however, used a long consonant in this verb, as in example (381). This was probably a problem in pronunciation. It also was possible that the informant assumed that there was a consonant

gradation in this verb: the alternation *kk: k*. In example (382), the personal suffix of the 1st-person singular was added to the 3rd-person singular form, not to the verb stem. Because this form included two suffixes, it was an example that the form *haluaa* including both stem and the suffix of the 3rd-person singular was stored in the mental lexicon as a holistic entity (see Bybee 1985: 98). However, it was possible that the long vowel actually represented only a problem in pronunciation.

7.5.10. Errors in essays

Morphosyntactic errors and morphophonemic errors in the essays are presented in Table 7.34. The errors types are the same as in the oral tasks. Errors of orthography are not presented in Table 7.34. Errors in marking long and short consonants were not always easy to interpret. Did such errors reveal something about how the informants mastered quantitative consonant gradation, or did such errors only represent an orthographic problem? I will comment on the interpretation problem when I present the examples.

Table 7.34

Errors in essays of bilinguals (BL) and classroom learners (L)

BL	BL					Total	Total, L2					Total	Total, type	
	Anna	Kalle	Mari	Pekka	Tiina		type	Berit	Elin	Rita	Siri			Vivi
Affirmative forms														
Error type 1														
Incorrect personal suffix	0	0	1	0	0	1	1	1	10	2	3	1	17	17
Error type 2														
Gradation error	1	0	4	0	0	5		3	1	2	4	0	10	
Other stem error	4	2	0	0	0	6	11	2	1	0	5	1	9	19
Error type 3														
First infinitive as finite verb	0	0	0	0	0	0		0	2	2	3	0	7	
First inf. + personal suffix	0	0	0	0	0	0		3	0	2	0	1	6	
Finite verb as first infinitive	0	0	0	0	0	0		1	0	1	1	0	3	
Qestion particle not used	0	0	0	0	0	0		1	0	0	0	0	1	
Other form error	0	0	0	0	1	1	1	0	0	0	2	0	2	19
Negative forms														
Main verb														
Affirmative verb used	0	0	0	0	0	0		0	5	1	4	0	10	
Other form error	0	0	1	0	0	1	1	0	0	0	1	0	1	

Stem error				1		1	1				1		1	12
Total, essays	5	2	6	1	1	15	15	11	19	10	24	3	67	67

Errors in affirmative forms were classified into three categories. The first error category was the use of incorrect personal suffixes, already presented in Section 7.5.6. Errors made in verb stem were Type 2 errors, and I present them in this section. Type 3 errors included form errors; in addition, these errors were presented earlier in most cases: 1st-infinitive forms used as finite verbs were presented in Section 7.5.6. I present the 1st-infinitive forms followed by the personal suffix in this section because these forms did not represent errors made by personal endings. These errors showed that the informants did not notice that the 1st-infinitive form included a suffix; these forms were errors of verb forms, but they also were errors of verb stems. Finite verbs used as the 1st infinitive were presented in Section 7.5.8, and errors in question forms were discussed in Section 7.5.2. Other errors in affirmative forms were errors of tempus, which were presented in Section 7.5.4, examples (375) and (382). A form error is shown in example (177), where the noun, *kirje*, ‘letter,’ was used as a verb. Errors in negative forms were presented in Section 7.5.2.

The following are examples of stem errors in the essays of the bilinguals. Examples (446) to (450) are errors in consonant gradation, and examples (383) to (394) are other stem errors in the production of the bilinguals:

- 383) kirjoita (target: *kirjoittaa*) (Anna BL, E2) ‘to write’
- 384) soitettiin (target: *soitettiin*) (Mari BL, E1) ‘we phoned’
- 385) oppii (target: *oppii*) (Mari BL, E2) ‘one learns’
- 386) nukui (target: *nukkui*) (Mari BL, E1) ‘it slept’
- 387) maan (target: *makaan*) (Mari L, E1) ‘I lay’
- 388) opetettan (target: *opetetaan*) (Anna BL, E2) ‘is taught’
- 389) testaimme (target: *testasimme*) (Kalle BL, E1) ‘we tested’
- 390) startain (target: *startasin*) (Kalle BL, E2) ‘I started’
- 391) ei tarvia (target: *ei tarvitse*) (Pekka BL, E2) ‘one need not’
- 392) Sorsat olevat hienoja. Ne olevat punaisia ja mustia. (target: *ovat*) (Anna BL, E1)
‘The ducks are fine. They are red and black.’
- 393) Sielä ei ole opettajaita, siellä vaan ole tietokoneja. (target: *on*) (Anna BL, E2)
‘There are not any teachers, but there are only computers.’

Only 2 of the bilingual informants made errors in the consonant gradation in the essays. These two informants, Anna and Mari, also had the most problems with the consonant gradation in comparison to the other bilinguals in the oral inflection task (look at Table 7.6). Actually, Mari made only consonant gradation errors in the oral inflection task. Even if the number of errors in the essays and the oral inflection tasks were not so high, the coincidence that the same informants had problems in the oral and written production concerning the consonant gradation indicated that the errors probably were not only problems of orthography but also errors that reflected how the informants mastered consonant gradation in Finnish.

In the examples of the bilinguals, most consonant gradation errors were errors in quantitative consonant gradation: (383) to (386) were examples of quantitative consonant gradation, and only example (387) was an example of qualitative consonant gradation. So, the situation was quite the opposite to that in the oral inflection task, where there were more errors in qualitative consonant gradation (look at Table 7.8). In all of the examples above, a weak form was used instead of a strong one. Also in this respect, these consonant gradation errors were different from the errors in the oral inflection task. The errors in consonant gradation in examples (383) to (386) were similar to errors of orthography in the production of Finnish-speaking children because in all these forms, a consonant was lacking in cases when a long consonant ought to have been marked. Also, the marking of long vowels caused problems for the Finnish-speaking children, especially in syllables other than the first one, as in example (446; Lähdemäki 1995: 36-37). One may conclude that the errors in these examples were errors of orthography, but the informants who made such errors also had problems with consonant gradation in other tasks. Lähdemäki commented on the difficulty in differentiating orthographic errors in marking the quantity of consonants as well as the long grade in quantitative consonant gradation. Her solution was to present such errors as errors of consonant gradation (1995: 38), a solution that I also made in the present study.

In example (387), there was a qualitative consonant gradation where *k* alternates with *zero*. As mentioned, this gradation is a difficult one (see Table 7.8 and Martin 1995: 101, 126). All inflected personal forms have a strong variant, including *k*, for example, *minä makaan*, ‘I lie’; *sinä makaat*, ‘you lie’; and *hän makaa*, ‘he/she lies.’ The infinitive form *maata*, ‘to lie,’ in comparison, has a zero grade. Similar forms were produced by the bilinguals in the oral inflection task when they produced such forms as *minä koon*, instead of the correct form *minä kokoan* ‘I collect,’ of the verb *koota*, ‘to collect.’ In the oral inflection task, the weak grade in the 1st-person singular form was an effect of the infinitive form, probably because this form was used as a priming form. However, in the written production, there was no priming effect. Therefore, the form *maan* was probably an example of mixing paradigms. In this case, inflectional Type II was mixed with inflectional Type III (look at Tables 7.1 & 7.2), and the analogic model was *saan*, though in this case, the analogical model was a smaller inflectional type. The verb *saada* has a high token frequency. In oral Finnish, Type IV verbs are often conjugated as one-syllable words: *oon* (= *olen*), ‘I am’; *meen* (= *menen*), ‘I go’; *tuun* (= *tulen*), ‘you come’; and *paan* (= *panen*), ‘I put.’ All these verbs are very frequent; the last of them is a rhyme of *maan*, in the same way as *saan*. So, these very frequent one-syllable forms functioned probably as an analogical model for a verb in Type II, which included a problematic consonant gradation where *k* and *zero* alternated. Bybee (2003: 120-124) concluded that a small verb type including only six verbs was used as a productive analogical model in a nonce word experiment in Spanish when the phonological shape of the nonce stem did not suit the model of the verb type with the largest number of members. Bybee also referred to Skousen, who suggested that an analogy could occur on the basis of a single word in the lexicon, if a narrow similarity exists between the model form and the analogical form (see also Martin 1995: 30-31). In Finnish child language, the mixing of paradigms happens between Type I and Type II verbs; however, the verbs in Type II,

including a consonant gradation *k*: *zero*, like *koota* and *maata*, did not suit verb Type I because the zero stem has only one syllable, in contrast to Type I, which has two syllables. Therefore, not Type I, but a smaller verb type or eventually forms of single verbs with high token frequency that are phonetic similar to the analogical form, was used as a model for the analogy.⁶¹ (see Bybee 2003: 124).

In example (388), Anna used the strong grade *pp* in the verb *opettaa*, ‘to teach.’ Because this verb has only a weak variant of *p* in all inflected forms, this error was not an error of consonant gradation. Anna chose the strong grade probably because this grade is used in another verb, *oppia*, ‘to learn.’ Actually, the oral inflection task demonstrated that Anna confused these two verbs.⁶² Norwegian orthography might also explain this form: A consonant is marked long in orthography if a preceding vowel is pronounced short (Vinje 2005: 56).

Examples (389) to (390) are examples of mixed paradigms. In examples (389) and (390), the verbs *testata* ‘to test,’ and *startata*, ‘to start,’ which belong to verb Type II, were conjugated as verbs in Type I. Similar forms are common in Finnish child language, for example, Niemi and Niemi (1985: 165) presented *pissai* (= *pissasi*, ‘passed water’) *haukkai* or *haukkoi* (= *haukkasi*, ‘bit’); in their material, the stem vowel *a* changes to *o* when the child became older, and the form *haukkoi* fits better the morphophonological changes of past tense forms of Finnish. Such changes did not occur in the examples produced by Kalle. In example (391), the verb *tarvita*, which belongs to verb Type V, was conjugated like verb Type II in the negative form. Mixing verb paradigms I and II, as well as mixing the small verb paradigms with productive Type II, was also identified both in child language and in language contact context (Laalo 1998: 362-371; Lindgren 1993: 241-242; 1999: 154-155, see also Section 7.1.6). Product-oriented schemas are used to produce such analogical forms with paradigmatic mixing (see Bybee 2003: 126-127; Croft & Cruse 2004: 300-302).

Anna confused different verb stems of the verb *olla*, ‘to be,’ in her essays (examples 392 & 393). This most frequent verb in Finnish does not have a regular conjugation, something which is usual with frequent verbs (Bybee 1985; 2003). There are two stem alternations of this verb, namely, *ole-* and *o-*, and the first one is also used as a negative stem. Anna incorrectly used the variant *ole-* in the 3rd-person plural (example 392) and the 3rd-person singular form (example 393). However, Anna produced these forms correctly in the oral tasks, and she also chose the correct form *ovat*, not the incorrect alternation *olevat*, in the multiple-choice task. Therefore, her use of the incorrect stem *olevat* in the essays was not easy to

⁶¹ I have heard an analogic 3rd-person singular form *koo* of the verb *koota* ‘to gather’ in oral production of a Norwegian–Finnish bilingual (age 10, 5). So, even though the form *koon* in my material was a priming effect in the oral inflection task, this example showed that the frequent one-syllable verbs with low-type frequency probably formed the analogical model also for the forms of the verb *koota*, though there is not any rhyme of *koo* in Finnish.

⁶² The strong variant of *t* in passive present tense in example 3 *oppetettan* is analysed to be a phenomenon of oral language, so called *special gemination* (*erikoisgeminaatio*) of consonants, found in many Finnish dialects. Oral forms are not seen as conjugation errors, so this form is not an error either.

explain. It was a hypercorrect form probably because it was used only in her written production. The form *olevat* is actually an existing form; it is a 1st-participle form; participle forms are more frequently used in written than in oral production. In example (393), the stem variant *ole*, which was used as an affirmative 3rd-person form, was influenced eventually by the negative form of the verb *olla* because the negative form was used in a clause right before. However, the fact that the informant was uncertain about the conjugation of such a frequent verb as *olla* demonstrated that her contact with Finnish was not close.

Examples (394) to (464) present errors of consonant gradation, and (464) to (468) illustrate other stem errors in the production of the classroom learners:

- 394) soittaa (target: *soittaa*) (Berit L2, E2) ‘the bell rings’
- 395) ottamme (target: *otamme*) (Rita L2, E1) ‘we take’
- 396) huutan (target: *huudan*) (Elin L2, E1) ‘I shout’
- 397) pysähtymme (target: *pysähdymme*) (Siri L2, E1) ‘We stop’
- 398) luevät (target: *lukevat*) (Siri L2, E2) ‘they read’
- 399) opemme paljon (target: *opimme*) (Siri L2, E2) ‘We learn a lot’
- 400) hän kuuraa (target: *kuulee*) (Berit L2, E1) ‘She hears’
- 401) kaikki hymyvät ja nauravat (target: *hymyilevät*) (Siri L2, E1)
‘Everybody smiles and laughs’

The classroom learners made errors in quantitative and qualitative consonant gradation. In examples (394) to (395), there was quantitative consonant gradation *tt: t*. In examples (394) the weak variant was used incorrectly instead of the strong one; in comparison, the strong variant was used instead the weak one in example (395). The choice of a short versus a long consonant probably reflected Norwegian orthography in these examples: A short consonant was chosen after a long vowel or a diphthong, as in examples (397), but a long consonant was chosen after a short vowel, as in examples (395); see also example (388) from bilingual Anna). However, because these examples also were errors of consonant gradation, they were presented in Table 7.34.

In examples (396) and (378), there was the quantitative gradation *t: d*. In these examples, the strong variant was preferred incorrectly before the weak one. In example (398), a weak variant was used instead of the correct strong one. In this case, the alternation was k: zero.

In example (399), the verb *oppia*, a verb with an *i*-stem, was conjugated using an *e*-stem: *me opemme*. So, this verb changed the paradigm of the conjugation. Verbs with *i*-stems form a subgroup of verbs in verb Type I. There are a small group of *e*-stems in verb Type I, as well; besides that, all the verbs that belong to Type IV are *e*-stems in Finnish (Karlsson 1983: 210-214). So, the paradigmatic change seemed to have occurred from a small subgroup to a larger group of verbs. Verb Type IV with *e*-stems were verbs that the classroom learners seemed to know well (see Figures 7.2. & 7.3). Therefore, this error demonstrated type frequency effect (see Bybee 2003).

In example (400), a verb belonging to verb Type IV was conjugated as a verb belonging to verb Type I. Verbs including an *a*-stem are one of the largest subgroups of verbs in Type I and are the largest of all stem alternations in Finnish (Karlsson 1983: 210). More verbs have *a*-stems than *e*-stems. This means that in this case, a larger paradigmatic type took over a smaller paradigmatic type; also in addition, this error was the result of type frequency (see Bybee 2003). Another possibility was that this form was a 1st-infinitive form, including a shortened infinitive suffix and followed by a personal suffix. In this case, the example was an error of Type 3, shown in Table 7.34, so trying to explain what caused an error was not always easy.

In example (401), I interpreted the verb that Siri used as a form of the verb *hymyillä*, although there actually is a verb *hymytä*, ‘to smile,’ in Finnish. The forms produced by Siri could have been the forms of this more seldom and old-fashioned verb. I suppose, however, that such a verb did not belong to Siri’s vocabulary, nor is the verb *hymytä* in the *Norwegian-Finnish Pocket Dictionary (FL)*. So, it is reasonable to think that this verb form was a shortened form of the verb *hymyillä*. The classroom learners produced the same types of shorter forms in the oral inflection task (7.3.3, error Type II).

Examples (402) to (404) were Type 3 errors in Table 7.34. In these forms, the 1st infinitive is followed by a personal suffix:

402) me ollamme (target: *olemme*) (Rita L2, E1) ‘we are’

403) poimian (target: *poimin*) (Vivi L2, E1) ‘I pick up’

404) he eivät tarvitaa (target: *eivät tarvitse*) (Siri L2, E2) ‘they don’t need’

In the oral inflection task, the informants used the 1st-infinitive forms followed by the personal ending most obviously because the priming form was the 1st-infinitive in this task (see Table 7.6). Such forms were not produced in the oral tasks at all, but the classroom learners produced similar forms in the essays. The use of the dictionary may have been the reason for these errors; the 1st infinitive is the dictionary form of the Finnish verbs. However, one could expect that the verb *olla* was a verb that the informants did not need to look for in the dictionary because it is so frequent; however, an infinitive suffix also was used when this verb was conjugated in the 1st-person plural, as in example (402). One possibility is that because the form *olla* is a frequent form, it is stored as a whole form in the mental lexicon (see Bybee 2003: 29-31) and used as a stem in suffixation process. Forms where 1st-infinitive forms are used as a verb stem occur also in the material of Lähdemäki (1995: 128). Her informants were Swedish speakers in Finland who were participating in Finnish examination at an advanced level, and they used such forms as *toivoan*, ‘I hope,’ and *tehdän* ‘I do.’ In addition, these verbs are frequent verbs in Finnish. In comparison to the classroom learners, Anna, the only bilingual to produce such forms in the oral inflection task, did not produce any such forms in her essays. Example (403) is an example where the 1st-infinitive suffix was followed by a personal suffix in the affirmative form. In example (404), this form was used in the negative verb form.

7.6. Discussion

In this chapter, I present the main differences between the informant groups concerning their knowledge of inflection of Finnish verbs. First, I describe the inflection of Finnish verbs in different morphosyntactic categories. Afterwards, I discuss how the informants mastered the morphophonologic variation in the verb paradigms; that is how they were able to produce the correct stem of Finnish verbs. I will compare their stem errors with the findings of slips-of-tongue errors of Finnish mother tongue speakers in Hokkanen (2001). I also ask if these errors reveal something about the representations in the mental lexicon and processes of inflection. The usage-based models claim that mental representations of language are the result of language use (see Bybee 2003; Croft & Cruse 2004). Were the mental representations of the Finnish verbs in the informant groups different because of the differences in use?

I compare the differences between the informant groups; in addition, I compare the differences between the oral and written production and between the production tasks and the elicited tasks (oral inflection task and multiple-choice task). This means that triangulation of the sources (see Patton 2002: 555-563) was used to discover the inflectional knowledge of the informants.

Figure 7.8 collects the percentages of inflectional forms in the oral and written production of the informants. The forms presented here are marked forms.

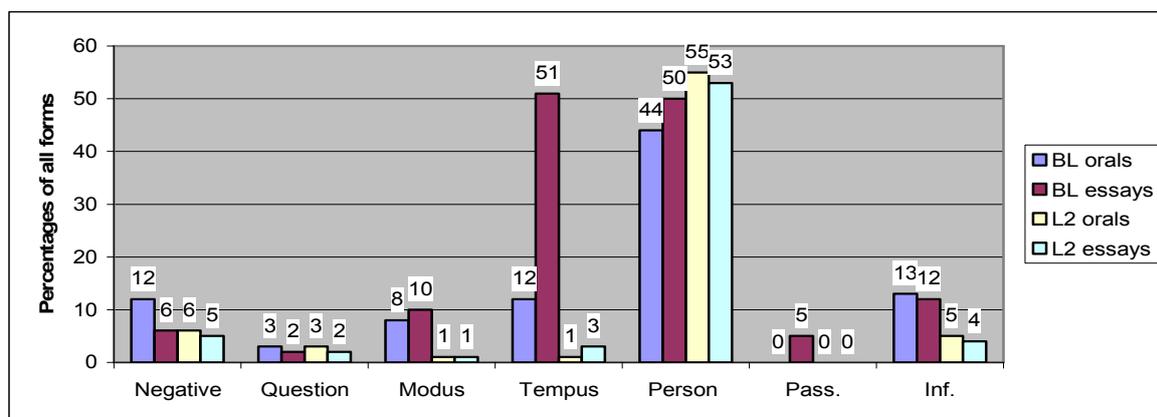


Figure 7.8. Inflectional forms produced in oral tasks and essays by bilinguals (BL) and classroom learners (L2). The forms were not always correct forms. The figure presents the marked forms: negative forms; question forms; modus (conditional and imperative forms); tempus (past tense, perfect, and pluperfect forms); personal forms (1st and 2nd person in singular and plural, 3rd person in plural); passive forms (= pass); and infinitive forms (= Inf.). The figures are percentages of all verbs (marked and unmarked forms) in each category.

Unmarked forms are affirmative forms, indicative forms, present tense forms, 3rd-person singular forms, active forms, and finite forms. The 3rd-person singular form is an unmarked form because it is the most frequent form and the stem variant in this form (strong vowel stem) is considered the basic form of the verb (Karlsson 1983: 207-208). The classroom learners produced more unmarked forms and fewer of all types of marked forms in the orals and in the essays than the bilinguals, the only exception being the personal forms.

Passive forms and infinitive forms like 3rd infinitive did not occur in the input of the classroom learners; consequently, there were none of these forms in their production. The bilinguals used the passive only in their written production. I comment on the other forms in the following order: personal forms, negative forms, questions, tenses, moods, and infinitives.

The personal forms produced by the informants were influenced by the context of use in the tasks. The 2nd-person form was used only in dialogues both in the comic strip tasks and in the essays. Also, the 1st-person singular form was used in dialogues in these tasks, but it was often used in the interview. The low number of 3rd-person singular forms (the unmarked form) in the production of the classroom learners indicated that they were not able to expand on the discussion topics; instead, they gave short answers to the questions, especially in the interview; the same thing happened in the comic strip tasks. The high percentage of 1st- and 2nd-person forms in the comic strip tasks was related to the use direct speech by the classroom learners while creating the dialogue between the comic strip figures. The bilinguals, in contrast, varied between the indirect and direct modes or used a mix of them. In indirect speech, the personal forms are used not only in deixis or spatio-temporal situation (Lyons 1968: 275) but also from the point of view of the speaker. Therefore, indirect speech is more complicated and develops late in child language (see Tomasello 2003: 275; Brown, A. 2004: 503). The difference between the two groups in the present study suggested that this might be the case not only in first but also in second language learning (see also Section 7.55 and 6.4.3.1).

The personal forms in Finnish represent the iconic one meaning-one form principle (see Slobin 1979; Anderson 1990, 1993), except in the 1st-person plural, because there are two alternative forms used to express this category. The bilinguals did not have problems producing personal forms generally, but these two forms of the 1st-person plural were mixed up sometimes. The classroom learners used the 1st-person plural forms ending with a personal suffix because it was the only form used in their input.

The classroom learners mastered the personal forms better in tasks where they were able to concentrate only on form (in the oral inflection task, in the multiple-choice task, and in the essays) when compared to the oral production, where it was necessary to concentrate on many things at the same time. Hence, the production of the personal forms was not an automatic process yet because attention was needed to produce the personal forms correctly (see Segalowitz 2003). In the oral production of the classroom learners, high production was connected to a high number of errors. Errors in personal forms were influenced by syntax in some cases, but there also were other reasons for errors made in personal forms. The 3rd-person plural was incorrectly used instead of the 2nd-person singular in the oral inflection task and sometimes in the orals. This happened probably because these forms ended with the same consonant, although it was not always easy to explain why errors in personal forms occurred in the production of the classroom learners. The 3rd-person singular form substituted for other personal forms more often in the oral tasks than the other personal forms, and the same form was better mastered than other personal forms in the oral tasks and the essays. Still, the high percentage of correct 3rd-person singular forms was based on the frequent use of the form *on*

of the verb *olla*, 'to be.' Therefore, one may ask if the 3rd-person singular form actually was compared more easily, for example, to the 1st-person singular form, which the classroom learners produced often.

The negative verb form complicates the verb conjugation of Finnish because negation in Finnish is asymmetric: The negative form is different from the affirmative form, so it is a deviation from the one-to-one principle (Slobin 1979; Andersen 1990, 1993). The negative verb form seemed to be a difficult form for the classroom learners. An affirmative form was used to substitute for the negative form of the verb most often in the oral tasks and the essays in their production. The use of the affirmative form instead of the negative form is also registered in other investigations of Finnish as a second language (see Lähdemäki 1995: 121). If one takes into account the errors made in the negative forms, 54% of all negative forms in the oral tasks and 16% of all negative forms in the essays were correct negative forms in the production of the classroom learners. The high percentage of correct negative forms in the oral tasks was the result of the correct use of the verbs *olla*, 'to be,' and *tietää*, 'to know.' The correct use of forms connected to some frequent items demonstrated formulaic learning of the negative verb form (see Tomasello 2003). Actually, the verb *tietää* was used in the negative form only by the classroom learners (see Section 6.4.1.3).

In the oral inflection task, the priming form, or the 1st infinitive, was often produced instead of the correct negative form, but an affirmative form was also produced quite often. The affirmative verb form was chosen in the multiple-choice task instead of the correct negative form. In the oral and written production, an affirmative verb form replaced the negative verb form, especially in the production of the classroom learners. Only 1 of the bilinguals used the affirmative form to substitute for the negative form in the oral inflections task; the same informant chose an affirmative form in the multiple-choice task quite often, but the negative forms were not problematic for the bilinguals in the oral tasks and in the essays.

Questions are interpersonal forms, and they were seldom used by both informant groups. There was no difference between the groups concerning how many questions they used in percentages of all verb forms, but the question forms of the classroom learners were not correct Finnish forms most of the time. The classroom learners had problems producing the question form of the verb correctly. Both in the oral tasks and in the essays, a dummy verb, *olla*, was used to produce a question in Finnish. The classroom learners demonstrated in the oral inflection task that they had problems producing yes/no questions. Only in the essays were there some correct question forms produced, but only by 1 of the informants. The bilingual informants did not make any errors forming questions.

The largest difference between the groups was in the use of tenses in the essays. The bilingual informants used the past tense frequently, particularly in the narrative essay, where the use of the past tense was genre dependent. Other tenses besides present and past occurred infrequently in both informant groups. The classroom learners had very few examples of verbs used in the past tense and the perfect. The only verb used in perfect was the verb *olla*. The past tense and the perfect are used in the second volume of Slotte (1987); still, tenses did not belong to the production of the classroom learners yet.

In addition, the use of the conditional seemed to be genre dependent because this form was used frequently in the argumentative essay in the production of the bilinguals. The classroom learners used the conditional only casually. Because the imperative is an interpersonal form, it was used in the dialogue in the comic strip tasks the most often. The imperative was seldom used by the classroom learners, even if these forms were presented already in the first volume of Slotte (1987). One may conclude that other forms of mood and tenses besides the indicative and the present tense were very seldom used by the classroom learners.

It is possible to conclude that there was a large difference between the informant groups regarding their knowledge of all the morphosyntactic categories in Finnish. The knowledge of these categories represents basic knowledge of inflection. The bilinguals were able to produce examples where verbs were inflected in all the important morphosyntactic categories, in contrast to the classroom learners, who inflected verbs only in the present tense in the active voice most often. Examples from other morphosyntactic categories in their production demonstrated formulaic or item-based learning (see Tomasello 2003) because only some verbs were used in the production of these forms or only some verbs were used correctly when producing such forms. *Tietää*, 'to know,' and *olla*, 'to be,' were the verbs used correctly in negative forms often; only the verb *olla* was used in the perfect. The question form *onko* of the verb *olla* was used as a kind of auxiliary when the classroom learners tried to form questions in Finnish. The special use of the form *onko* in these questions was influenced by the high token frequency of this form (see Bybee 2003: 124).

Also the numbers of verb string constructions as well as the verbs used in these constructions revealed the knowledge of Finnish verbs by the two informant groups, as already discussed in chapter 6. The classroom learners used verb string constructions less frequently than the bilinguals. The semantic analysis of the verbs in chapter 6 confirmed that the classroom learners used only a few primary B verbs and secondary verbs, especially in the oral tasks but also in the essays. Because such verbs usually take infinitive arguments, the low production of verb string constructions was a consequence of the low number of these verbs in the verb vocabulary of the classroom learners. The cognitive and modal verbs are most often used in constructions with infinitives. These constructions in the learner language indicate the development of complex constructions (see Tomasello 2003). Hence, the different numbers of verbs string constructions in the two groups indicated a difference between the bilinguals and the classroom learners concerning the knowledge of complex constructions of Finnish.

In Finnish, a frequent construction type is also verb string constructions with a 3rd infinitive expressing, for example, progressive aspect or concrete or abstract movement (see Karlsson 1999: 188-192). Motion verbs and the verb *olla*, 'to be,' are examples of verbs taking a 3rd-infinitive argument. The classroom learners produced many motion verbs (see Section 6.3.3) and used the verb *olla* frequently, even more often than the bilinguals (see Table 5.9); however, they did not use these as main verbs in verb string constructions. This was because these constructions were not present in their input.

The informant groups were different concerning the number of errors and error types in their production. The bilinguals made errors in the verbs stems the most often, in comparison to the

classroom learners, who made errors in personal forms and in other verb forms often, even though they also made errors with verbs stems. Earlier studies of learning Finnish morphology as a first or a second language, as well as studies of slips of the tongue, have reported that producing the correct stem is especially difficult in Finnish (Martin 1995: 151). Producing or finding the correct stem was the most challenging task for the bilinguals in all of the tasks. What were the differences between the informant groups concerning how they mastered the morphophonologic variation of Finnish verbs?

Consonant gradation means that many stems are connected to one lexical meaning; therefore, the one-to-one principle is not used, and the conjugation became more complicated (see Slobin 1979:188; Andersen 1990; 1993). The informants made more errors in the conjugation of verbs, including a consonant gradation, than they did in the conjugation of verbs without a consonant gradation in oral inflection task (see Figure 7.2). They identified the verbs with consonant gradations worse than the verbs without consonant gradations (see Figure 7.1). In the multiple-choice task, the forms that were correctly chosen by the informants were more often verbs without a consonant gradation than verbs with a consonant gradation (see Figure 7.3). The informants seemed to master the quantitative consonant gradation better than the qualitative consonant gradation in the oral inflection task. Earlier studies confirmed that quantitative consonant gradation is easier to master than qualitative consonant gradation (Martin 1995: 101). This may be because the qualitative consonant gradation changes the shape of the word more than the quantitative and the phonological connections between the words is loose. However, the informants made errors in quantitative consonant gradation relatively often in the essays, but it was not easy to differentiate an orthographic error from an error made in quantitative consonant gradation in written production. Consonant gradation type, where *k* alternates with *zero*, which is the most difficult consonant gradation type because it makes the largest difference between the different stems in word paradigm, seemed to cause problems for all of the informants, though other consonant gradation types also were difficult for the classroom learners. The alternation *k: zero* was found to be the most difficult also in the study of Martin (1995: 126). The problems with this gradation type, even in the group of the bilinguals, suggested that besides the semantic connections, the phonological connections between different stems in a paradigm are important (see Bybee 2003: 22).

Still, consonant gradation was not the only reason for problems in verb conjugation. The classroom learners seemed to have problems identifying and producing forms in verb Type III, not including any consonant gradation at all: In the oral inflection tasks, this verb type was not inflected as well as other verb types where the stem in the priming form (= the 1st-infinitive form) was the same as the result stem (see Figure 7.2). In the multiple-choice task, there were fewer correct choices of the verb forms in this verb type, as compared to other verb forms where no consonant gradation occurred (Figure 6.3). Why was this verb type without consonant gradations so difficult? One explanation was that there were some unknown verbs for the classroom learners in these tasks; however, this was not the case concerning all Type III verbs. Some very frequent verbs that the informants seemed to know also caused them difficulties. The reason that this verb type was so difficult in several tasks seemed to be its type frequency. There are few one-syllable Type III verbs in Finnish (Hakulinen & al. 2004:

105), and if one does not take into account the oral forms of verbs, all one-syllable verbs are included in verb Type III. In addition, the verb stem may end with a diphthong; hence, verb Type III is a non-canonical verb type with an exceptional phonological shape. In contrast, correct verbs, and even incorrect forms including two syllables and ending with long *a* or *ä*, were often identified as correct Finnish verb forms in the multiple-choice task. Such verbs, which belong to verb Type I, are the most frequent of all Finnish verbs (Hakulinen & al. 2004: 105), so the verb type frequency seemed to affect the learning of verbs in the group of the classroom learners (see Bybee 2003: 10-13; Croft & Cruse 2004: 296).

Verbs including a consonant gradation in verb Type IV, were better identified than verbs not including a consonant gradation in the verb identification task (see Figure 7.1) and in the multiple-choice task (see Figure 7.3). This verb type is also relatively large type in Finnish (see Hakulinen & al. 2004: 105), so it was easier for the informants. One explanation is that there probably were verbs that the informants seemed to know. Another explanation is the consonant gradation that often occurred in different tasks in this verb group was the alternation *tt:t*, which the classroom learners seemed to know well (look at Table 7.8).

Even though this project was not basically looking at processes in producing language, the errors of the informants also indicated how the forms are sometimes processed and stored in mental lexicon. In some cases, a mechanical combining was used in suffixation. Combining means joining two elements, for example, a basic form to a suffix, without any morphophonological processes involved to produce the correct stem. Martin described combining as the primary rule in Finnish morphology (1995: 195). However, mechanical combining is problematic because it often results in errors, even though it also works in many cases, especially in the inflection of nouns (Martin 1995: 148-149). In verb conjugation in Finnish, it works badly because there is no free basic form. The forms produced in many tasks in the present study, which included both 1st-infinitive endings and personal suffixes, were examples of combining, which resulted in errors; these forms demonstrated that the classroom learners and 1 of the bilinguals were not able to analyse verb forms in stems and suffixes. Still, these forms were produced the most often in the oral inflection task and in the essays, so they demonstrated a priming effect. In the first case, they were caused by the priming form in the task, and in the second case, probably by using the dictionary. In the oral tasks, these forms were not used at all. Combining, as well as rote learning, or formulaic learning, which also was demonstrated in this project, are processes found also in earlier language acquisition studies (Martin 1995: 138; Ellis, R. 1994: 272-273; Tomasello 2003).

Table 7.35 presents the types of stem errors in the production of the bilinguals and the classroom learners. Examples were collected from the oral inflection task (I), the oral production (O), and the essays (E).

Table 7.35

Stem errors in production of bilinguals (BL) and classroom learners (L2)

<u>Existing stem:</u>		BL		L2	
Illegal combination of stem + suffix					
Consonant gradation	A)	Illegal combination	Legal combination	Illegal combination	Legal combination
		1) lue+vat (I)	luke+vat	5) teke+tte (O)	tee+tte
		2) luke+t (O)	luke+t	6) lue+vat (O)	luke+vat
		3) maa+n (E)	makaa+n	7) pitä+n (I)	pidä+t
		4) lue+ta (O)	luke+a	8) pysähty+mme (E)	Pysähdy+mme
No consonant gradation					
	B)	9) starta+i+n (E)	startta+si+n		
		10) testa+i+mme (E)	testa+si+mme		
		11) halua+si (O)	halu+si		
		12) ole+vat (E)	o+vat		
<u>Not existing stem:</u>					
		Not existing stem	Correct stem	Not existing stem	Correct stem
	C)	13) tarvia+t (I), ei tarvia(E)	Tarvitse+t, et tarvitse	16) ope+mme (E)	opi+mme
		14) melutta+a (I)	melua+a	17) pale+n (I)	palele+n
		15) tavatet+ta+an (I)	tava+ta+an	18) hymy+vät (E)	hymyile+vät
				19) pakkate+n (I)	Pakkaa+n
				20) patka+n (I)	Pakkaa+n
				21) leikkii+vät (I)	Leikki+vät

Stem errors were divided in two basic types in this table, namely, those including an existing stem (A and B in Table 7.35) and those including a no-existent stem (C in Table 7.35; see Hokkanen 2001: 103-104). According to Hokkanen, errors with illegal combinations of correct stems and suffixes (like errors in Types A and B) are either errors of stem formation or errors in stem selection in slips-of-the-tongue material in Finnish. In the first case, there is a rule involved in the process. In the case of stem selection, allomorphic representation in mental lexicon is the explanation. Errors that resulted in a nonexistent stem (like the error in Type C in Table 7.35 in my material) were explained as errors of stem formation by Hokkanen (2001: 103-106). I discuss the possible interpretations of the errors in Group A, B, and C.

Stem errors in type A are related to consonant gradation. There were many examples of such errors in the oral inflection task, and overgeneralisations of both the strong and the weak stem occurred in both informant groups (see Section 7.3.3, error Type 2 and Table 7.8). In the oral inflection task, consonant gradation errors seemed to have been the result of the priming form (1st-infinitive form) in most cases; however, the form *luevat* (example 1 in Table 7.35) was not the result of any priming effect because the priming form had the strong grade in this task.

In the oral production, both the strong (examples 2, 5 in Table 7.35) and the weak stem (examples 4 and 6) variants were illegally combined with suffixes in both informant groups; this also happened in the essays (example 3 present a weak stem, and example 8 a strong stem used in illegal combination.) Because the strong vowel stem variant is considered the basic form of Finnish verb, the use of this stem in errors may mean that only the basic form exists in the mental lexicon, as is supposed in the IP-model of morphology. However, if only one basic form exists in the mental lexicon, errors where the weak stem is illegally combined with suffix ought not to occur (see Karlsson 1983: 209.) Therefore, these errors suggest that allomorphs seemed to exist in the mental lexicon.

Errors included in type B present other illegal combinations of existing stems and suffixes besides consonant gradation errors in Table 7.35. Examples (9) and (10) were forms that were interpreted as examples of mixed paradigms and were produced using product-oriented schema (see Bybee 2003; Croft & Cruse 2004). In example (11), a present tense stem was used instead of the correct past tense stem. This was an example where source-oriented schema was used because no paradigmatic forces were involved in the process (see Bybee 2003; Croft & Cruse 2004). In example (12), an existing stem allomorph was incorrectly combined with a suffix. This form also seemed to be a piece of evidence that both stems (*o-* and *ole-*) of this frequent verb exist in the mental lexicon eventually; however, because *olevat* is an existing form of a very frequent verb, it is possible that the whole word form is stored in the mental lexicon. Because analogical forms are not produced using one basic form as a starting point but are based on derived forms, only example (11) is an example where a suffix is added to a basic stem and a ‘rule’ is used.

There were also examples of non-existing stems in both informant groups that are presented in the group C in Table 7.35. Forms (13) to (15) were examples of mixed paradigms produced using product-oriented schema (see Table 7.9). In addition, example (16) was a paradigmatic error, and examples (17) and (18) were simplifications of the stems, which were shorter than the target stem. Example (19) was an analogical form, based on a model verb. Example (20) was a form that was difficult to explain because there was no morphophonological explanation. Example (21) was a form where the 3rd-person plural form is connected to a 3rd-person singular form; so this example included two suffixes. Such examples are used as a piece of evidence that whole words are stored in the mental lexicon (Bybee 1985: 76). A similar example is example (445).

On the basis of my material, it seems that the polymorphemic words presented in Table 7.35 were composed from stems and suffixes that were entities in the mental lexicon in most cases. Illegal combinations of existing stems and allomorphs seemed to demonstrate this. This seemed to be the case in both of the informant groups. Not only the examples of Type A and B in Table 7.35 but also the use of the verb stems without any personal suffix combined with them in the oral production of the classroom learners cannot be explained without assuming that the stems were stored as units of their own (see Table 7.25). In addition, the examples also demonstrate that not only the basic form but also other stems (allomorphs) are stored in the mental lexicon. This seems to suggest that allomorphs are relevant units

psycholinguistically, a result that is in accordance with the findings of the SAID-model (Niemi & al. 1994, see Section 7.1.6 in the present study) and the findings of Hokkanen (2001).

The examples of the bilinguals that resulted in a non-existing stem (examples 13, 14, 15 in Table 7.35) were described as mixed paradigms (see Table 7.9). These forms were the result of the analogical processes of the informants, and they were examples of processes where a product-oriented schema seemed to have been used because these incorrect forms were formed on the basis of inflected forms in another paradigm. Hokkanen, in contrast, explained that non-existing stems are the result of the application of rules (2001: 105).⁶³

Bybee (2003:110) suggested that whole words that are frequent are stored in the mental lexicon. The production of the classroom learners demonstrated both formulaic and item-based learning (see Ellis, R. 1994: 272-273; Tomasello 2003: 117-122), which is usual at the beginning of language learning. Formulas like *En tiedä*, 'I don't know,' and verb forms like *onko* (see the discussion in Section 7.5.1) seemed to have stored as holistic entities. In addition, there were two examples where two suffixes in the same word form seemed to have been used; one of these is example (21) in Table 7.35. In addition, such an analogical 1st-infinitive form as *lueta* and the analogical 3rd person plural form *olevat* in the production of the bilinguals are forms possibly stored holistically in the mental lexicon because they are existing word forms. However, in both informant groups, there were combinations that were counter examples that all words are stored as holistic entities because such form as *luevat* and *haluasi* must be a result of combining a stem allomorph and suffix; this is because these words do not exist in Finnish.

The errors of the informants demonstrated that not only a basic form but also different allomorphs of stems were entities in the mental lexicon. There were examples of analogical errors that were produced using a product-oriented schema but also an example where source-oriented schema was used. In addition, some of the forms seemed to be stored as whole words. These findings are in accordance with the claims of the usage-based models as well as those of the field morphology (see Paunonen 1983 [1976]; Bybee 2003:110; Croft & Cruse 2004); the results of the psycholinguistic investigations of how Finnish word forms are stored in mental lexicon seemed to prove the same results (see Niemi & al. 1994; Hokkanen 2001: 195).

Both the bilinguals and the classroom learners had examples of mixing paradigms, but these examples demonstrated a different kind of mixing. The bilinguals mixed between the verb Types I and II. The bilinguals seemed to mix paradigms in the same way as Finnish children

⁶³ Actually, some of the nonexisting stems presented by Hokkanen were also examples of mixing paradigm. Such form was *korejensa* 'his/her basket' target form *koriensa*, the erroneous form is based on a shift to another paradigm, and it is inflected as *valo: valojen*, 'light,' or *nalle: nallejen*, 'teddy bear.' According to Hokkanen, such shifts of paradigms are interpreted as application of rules in speech production. (2001: 105). However, the form *korejensa* can also be interpreted as a form that is produced using analogy, or product-oriented schema, because the erroneous nonexisting stem *korejensa* seemed to be based on inflected forms, which form a schema, and not on the basic form.

do: The verbs in the largest paradigm (Type I) and the most productive paradigm (Type II) were mixed; verbs in the other paradigms seemed to move toward these two types (examples 4, 9, 10, and 13-15 in Table 7.35) were explained as examples of paradigmatic mixing also found in Finnish child language and in language contact areas (T. Itkonen 1965: 189-190; Lindgren 1993: 241-242; Laalo 1998: 362- 371). In contrast, only one of the examples in the group of the classroom learners could be identified as paradigmatic mixing (example 16 in Table 7.35), but this paradigmatic mixing was different from the bilinguals because the larger paradigmatic types is Type IV verbs or *e*-stems. The other analogical examples were based on a single model verb in the oral inflection tasks (example 19). Sometimes, they produced shortened forms of verbs (examples 17 & 18) or other types of simplifications, and they produced verb stems where the model, either paradigmatic or an individual verb, was not possible to find, as in example (20).

Why did only the bilinguals produce mixing paradigms that are similar to the Finnish child language (Laalo 1998) and paradigmatic mixing in multilingual areas (Lindgren 1993)? I suppose that such mixing demands a larger vocabulary than the vocabularies of the classroom learners. A large vocabulary is needed to create a cognitive schema about the verb paradigms. Such cognitive schema is based not only on knowledge about the phonological restrictions of verb types but also on knowledge if many or only a few verb lexemes are included in a verb type. In most of the examples, the bilinguals combined a productive verb Type II (= ‘open schema,’ a type that does not include as many phonological restrictions as the other verb types) and the largest verb Type I; verbs from other verb types were conjugated using Types I and II as analogical models or schemas (see Bybee 1995 & Section 7.1.6). A small verb type was used as a schema by the bilinguals only in a special case, that is, when the verb *maata*, ‘to lie,’ having a specific consonant gradation *k: zero* was conjugated using a verb Type III with high token frequency as an analogical model.

Because the classroom learners had fewer entities (e.g., words, stems) in their mental lexicon of Finnish verbs, they were not able to create the same connections as the bilinguals. Paradigmatic analogies belong to the field phenomena in language, and before the connections between different parts of the field can be created, there must be enough entities (see Riionheimo 2007: 268). The analyses of the morphosyntactic categories of Finnish verbs demonstrated that the classroom learners had learned only some of these categories. Their verb vocabularies were also small, so their mental lexicons in Finnish included only some pieces of the verb paradigms of Finnish. The connections between different entities of verbs paradigms made by the bilinguals were different because they possessed a much larger part of the paradigms of Finnish verbs as the analysis of the conjugation categories as well as the numbers of their verbs demonstrated. However, the problems of the classroom learners related to the non-canonical small verb Type III seemed to provide evidence that they knew how the most typical Finnish verbs should look: They end in two vowels *a* or *ä* in 3rd person singular, and they have more than one syllable. This result demonstrated that besides the bilinguals, the classroom learners had a mental schema of Finnish verb that was based on the type frequency of words, as suggested in the usage-based models (see Bybee 2003: 126-127; Croft & Cruse 2004.)

Stem allomorphs do not follow the same one meaning-one form principle as the personal endings in most cases because there are many stem variants connected to one meaning. Therefore, the choice of correct stem seemed to be an even more demanding task than the choice of correct personal ending. Inflection knowledge meant making correct matches between the correct stem alternative and the correct suffix variant. Vacillating between two possible endings caused the mixing of paradigms in cases when the choice was between different infinitive endings (*-a /-ä* or *-ta/-tä*) or between different past tense endings, *i* and *si*. In addition, a consonant gradation caused problems because one had to match the correct grade to a correct ending or to a correct form group. According to field morphology, stem allomorphs bear indexical meaning: They include cues about the correct suffix alternatives (Paunonen 1983 [1976]: 79-81). A large vocabulary is needed to obtain such knowledge.

Repairs that the informants made indicated the difference between the stems and the personal suffixes in particular. The classroom learners were able to correct the personal endings, but as examples (396) and (443) showed, the incorrect stem was not repaired. An example of a repair from the production of the bilinguals (441) showed that the personal form was repaired first; afterwards, the stem was repaired. These examples indicated that the personal suffix got attention in the first place. Kaivapalu, who investigated the learning of Finnish noun inflection by Estonian and Russian informants, pointed out that the suffix allomorph of case was the starting point of the inflection process and that after the choice of suffix, the stem allomorph was processed (2005: 266-267). Personal suffixes have semantic meaning, but the indexical meaning of stem allomorphs is not easy to discover.

Because the bilinguals used analogical forms not only in their oral production but also in their written production, and because they repeated the same analogical forms many times, it indicated that such analogical forms were not only produced in these specific situations but that they had a more permanent cognitive representation in some cases. The mastering of forms was based on schemas about inflectional verb types in Finnish, and analogical forms were not always slips of tongue; rather, they seemed to have a permanent representation in the mental lexicon. This was a result of the language use in the group of the bilinguals: they used Finnish only in a few domains. The bilinguals did not get feedback from other Finnish speakers except their mothers and the Finnish teachers the most often (see chapter 2.) The small amount of feedback was the reason analogical forms became permanent most likely. According to Paunonen (1983 [1976]), it is feedback from other language users that means that analogical changes like the mixing of paradigms will remain permanent. Therefore, the mental representations of the verbs were connected to the language use of the bilinguals, exactly as the usage-based models predicted (see Croft & Cruse 2004: 3).

8. VERB PROFICIENCY PROFILES OF INFORMANTS AND CORRELATION BETWEEN VERB LEXICON AND VERB CONJUGATION

The research questions asked how verbs were learned in terms of their frequencies, semantics, and conjugation by the two informant groups who learned the Finnish language in different environments. The empirical chapters 5 to 7 chapters presented the learning of verbs in terms of these dimensions, and the effect of these dimensions on the learning of verbs was discussed. The aim of this chapter is to present the results and provide a more complete description of the verb vocabularies of the individual informants. In Section 8.1., *a verb proficiency profile* based on the findings of the verb vocabularies of the informants is presented. The relationship between the vocabulary size and the inflectional knowledge of the informants is discussed in Section 8.2. The motivation to investigate both the verb vocabulary and the inflection of the informants was based on the assumption made by the usage-based models that vocabulary and grammar form a continuum rather than two separate modules in the human mind (Bybee 2003; Croft & Cruse 2004; Tomasello 2003).

Using the verb proficiency profile, the individual informants are compared to other informants in the same group. The informants also are compared to the average value of the informants in the other informant group. The verb proficiency in the oral and written tasks is presented individually. Hence, the assessment of individual verb proficiency was basically based on a comparison, but I will comment on such features of Finnish of the informants that are not recognizable in language profiles. I also will try to give a short, general evaluation of the proficiency of the informants on the basis of their production in the oral tasks and the essays.

The verb proficiency profiles of the bilinguals are presented in Section 8.1.1. In Section 8.1.2, these profiles are compared to the choice of language at home and to the contacts with Finnish, topics that were presented in chapter 2. How did the use of language impact the knowledge of verbs in this informant group? The profiles of the classroom learners are presented in Section 8.1.3. These informants did not use Finnish at home and they did not have contact with Finnish outside the classroom (see Chapter 2). Therefore, their verb proficiency profiles are discussed in relation to the learning in a classroom environment and the input they received, especially the textbook of Slotte (1987, 1991) in Section 8.1.4.

The results of the self-evaluation questionnaire are presented in Section 8.1.5. How did the informants evaluate themselves? Afterwards, the verb proficiency profile and the answers given in the self-evaluation questionnaire are compared. Were the self-evaluations of one's own language proficiency in accordance with the verb proficiency profile created on the basis of the tasks in the study?

One important goal of the study was to identify connections between verb vocabulary size and mastery of verb conjugation. The correlation between these values is the focus of Section 8.2, which discusses the correlation between verb conjugation and verb lexicon size in the oral tasks in Section 8.2.1 and in the essays in Section 8.2.2.

8.1. Verb proficiency profiles

I will present the verb proficiency profiles of the informants in figures. The verb profile consists of subprofiles of use in the oral and written tasks. The first of them is a *verb vocabulary size profile*, which includes the total number of verb lexemes, number of individual lexemes, and the number of low-frequency lexical verbs. This profile summarizes the main results from chapter 5.

The next subprofile is a *semantic profile*, in which the number of lexemes in the different semantic macro fields, primary A and B verbs and secondary verbs, is presented. The semantic profile presents the results from chapter 6. The third profile is an *error profile*, which summarizes the errors made in the oral and written production and in the elicitation tasks, namely, the oral inflection task, the multiple-choice task, and the verb identification task. The error profile summarizes the results from chapter 7 as well as from chapter 5 (the verb identification task).

The last subprofile is an *inflection profile*. I collected the percentage of unmarked verb forms that the informants used in the orals and the essays: affirmative verb forms, indicative forms, present tense forms, and 3rd-person singular forms. The inflection profile describes how the informants were able to vary their production regarding the use of different verb forms. The inflection profile summarizes the results from chapter 7. In the size profile and the semantic profile, a higher value indicates good knowledge of Finnish verbs; a high value indicates poor knowledge of Finnish verbs in the error and inflection profiles.

Figure 8.1 presents the language proficiency profiles of the bilinguals in the oral tasks; Figure 8.2 presents them in the written tasks.

8.1.1. Verb proficiency profiles of bilinguals

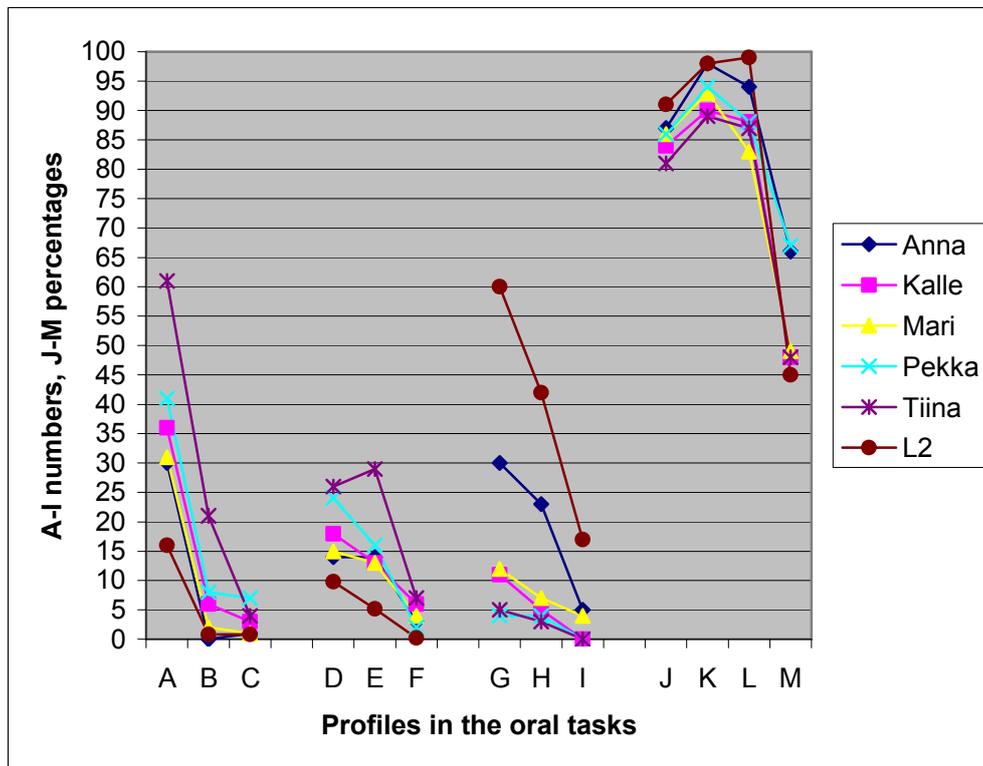


Figure 8.1. Verb proficiency profiles in oral tasks: Bilinguals (BL) compared to average values of classroom learners (L2).

Size profile:

- A: Number of lexemes in the oral tasks, Table 5.1
- B: Number of individual lexemes in the oral tasks, Table 5.8
- C: Number of low-frequency lexemes in the oral tasks, Figure 5.10

Semantic profile:

- D: Number of primary A verbs in the oral tasks, chapter 6.3
- E: Number of primary B verbs in the oral tasks, chapter 6.4
- F: Number of secondary verbs in the oral tasks, chapter 6.5

Error profile:

- G: Errors in the verb identification task, Figure 5.11
- H: Errors in the verb inflection task, Tables 7.6, 7.10, 7.11
- I: Errors in the oral tasks, Table 7.33

Inflection profile:

- J: Affirmative forms in percentages of all finite forms, Appendix 21
- K: Indicative forms in percentages of all finite forms, Appendix 23
- L: Present tense forms in percentages of all finite forms, Appendix 24
- M: 3rd-person singular forms in percentages of all personal forms, Appendix 28

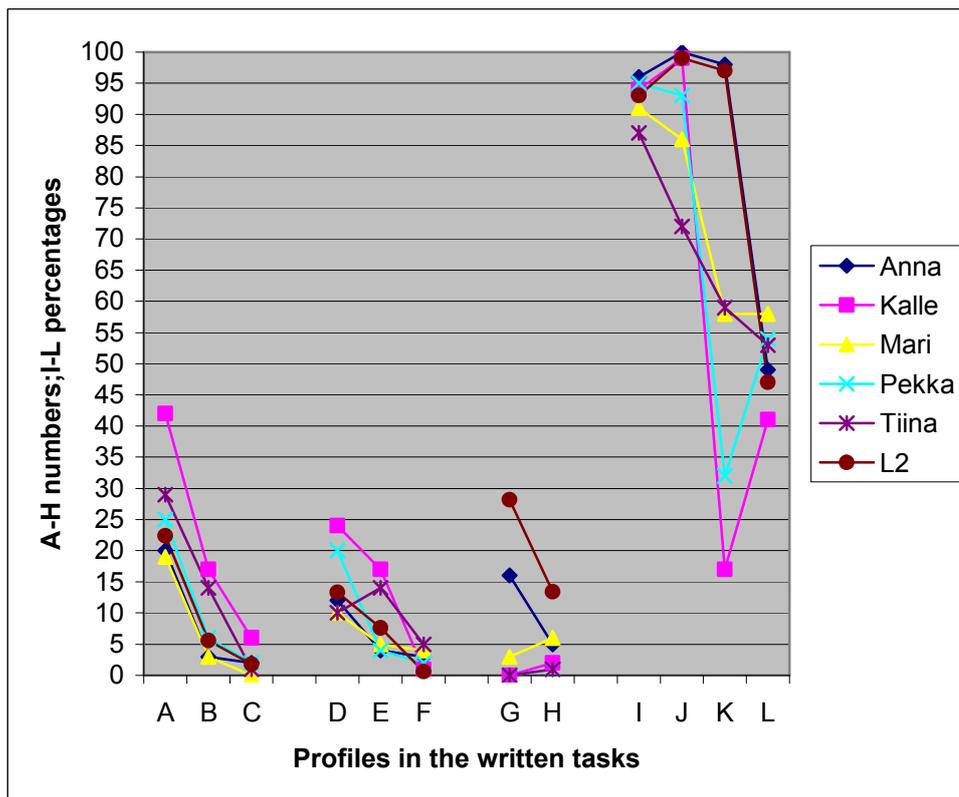


Figure 8.2. Verb proficiency profiles in written tasks: Bilinguals (BL) compared to the average values of classroom learners (L2).

Size profile:

A: Number of lexemes in the essays, Table 5.3

B: Number of individual lexemes in the essays, Table 5.8

C: Number of low-frequency lexemes in the essays, Figure 5.10

Semantic profile:

D: Number of primary A verbs in the essays tasks, chapter 6.3

E: Number of primary B verbs in the essays tasks, chapter 6.4

F: Number of secondary verbs in the essays, chapter 6.5

Error profile:

G: Errors in the multiple-choice task, Tables 7.15 and 7.17

H: Errors in the essays, Table 7.34

Inflection profile:

I: Affirmative forms in percentages of all finite forms, Appendix 22

J: Indicative forms in percentages of all finite forms, Appendix 25

K: Present tense forms in percentages of all finite forms, Appendix 26

L: 3rd-person singular forms in percentages of all personal forms, Appendix 30

Anna was the informant with the lowest number of verb lexemes in the oral tasks and the next lowest number in the essays in comparison to the other bilinguals. She did not have any individual verb lexemes when the two informant groups were seen as one group in the orals, and she had only a few individual lexemes in the essays. In addition, the number of low-frequency lexemes was smaller than the number for the other bilinguals.

Consequently, she also had a lower number of verb lexemes in different semantic fields when compared to the other bilinguals. Still, she used verbs in all three main semantic fields: primary A verbs, primary B verbs, and secondary verbs. Even in the essays, where the number of her lexemes was lower than the average number of classroom learners concerning the primary A and B verbs, she had a higher number of modal verbs than the classroom learners. She used the most important modal verbs *voida*, ‘can, may; *pitää*, ‘must’; and *saada*, ‘may, be able to, must not’ in Finnish in both oral and written production. Even if Anna used the modal expressions as frequently as the other bilinguals, she used the special modal construction of necessity, *pitää*, ‘must,’ without using the special structure that is common to verbs of necessity in Finnish (see Section 6.5.1). Because this construction is a frequent one in Finnish, it is one of the features that seemed to suggest that her contact with Finnish was not very frequent. Plus, she used an incorrect stem of the most frequent verb of Finnish in her essays.

The error profiles for Anna were different from all of the other bilinguals in the oral and the written tasks and more like the error profiles of the L2 mean value in these tasks, though she made fewer errors than the classroom learners. She made many errors, particularly in the elicited tasks, the verb identification task, the oral inflection tasks (G and H in Figure 8.1) and the multiple-choice task (G in Figure 8.2) in comparison to the other bilinguals. Her errors were also similar to the classroom learners qualitatively. For example, she used the affirmative verb form instead of the negative verb form, or she produced a form that included both the 1st-infinitive form + infinitive suffix and the personal ending, a form that showed that she was not always able to identify the difference between the verb stem and the suffix. However, there were not as many errors in her oral or written production as in the elicited tasks.

The inflection profile showed that Anna used the unmarked verb forms more often than the other bilinguals. She had few forms of other mood besides the indicative, and she used many present tense forms in her essays, which was similar to the classroom learners. Still, her reason for not using the past tense in the essays seemed to be different from that of the classroom learners: Anna’s use of the present tense in a narrative was a stylistic problem, not a problem of knowledge of the tenses in Finnish because she used tenses in her oral production. Nevertheless, she seemed to vary her verb forms less than the other bilinguals.

Before we started the oral tasks, Anna was quite doubtful and informed me that she was not able to speak Finnish. Although she did not have any problems understanding my questions in the oral tasks, she was not able to express everything that she wanted to say in Finnish. The texts that she produced were written in an understandable Finnish, but there was not much variation in the use of structures or vocabulary, and they included orthographic errors.

The size profile for **Kalle** seemed to be about the mean size of all the bilinguals in the oral tasks, but in the written tasks, he had the highest values compared to all other bilinguals, so Kalle's verb proficiency profiles indicated that his written production was better than his oral production. He used many primary A verbs in both types of tasks. Because Kalle made only a few errors in the different tasks, his error profile indicated a good knowledge of Finnish verbs. Perhaps the low production in the oral tasks was because he was too quiet and did not participate as enthusiastically in the oral tasks? However, he made many errors in the verb identification task, indicating that his vocabulary lacked some verb lexemes of Finnish. The bilinguals did not borrow verbs from Norwegian when speaking or writing Finnish, but Kalle used a semantic loan from Norwegian, namely, *maalata*, meaning 'to purr'; in Finnish, this verb means 'to paint.' However, it is not exceptional for loans to occur in multilingual language use; in addition, the other bilingual informants used loans from Norwegian in their oral or written Finnish, although they did not borrow verbs. Still, the semantic loan may have indicated that Kalle did not know or did not remember the Finnish verb *kehrätä*, 'to purr,' so it actually was a lexical gap. He also confused the meaning of two verbs, *vaihtaa*, 'to change,' and *vaihdella*, 'to vary.' The latter verb is a derivative of the first one. Kalle also lacked a special construction of state (*Meitä on viisi*, 'We are five') and replaced it using a more frequent complement construction (look at chapter 6.3.1, example 11). However, this structure is a nonfrequent one in comparison to the construction with the modal verb of necessity, which is very frequent. The inflection profile showed that Kalle varied the verb forms in his oral and written production. He used very few present tense forms in the essays because he had chosen to use a narrative style in both of the essays, though he also used dialogue. He made orthographic errors, but the first essay, *One Fine Day*, was particularly long, and his narration was lively. He also produced the lines of the figures in the oral tasks easily, which revealed that he had a good imagination.

Mari's size profiles and semantic profiles resembled Anna's profiles. Their verb vocabularies were not only quantitatively but also qualitatively different from the verb vocabularies of the other bilinguals because both of these informants, who had a small number of verbs in their production, used a higher percentage of nuclear verbs and other frequent verbs more than the other bilinguals. As a consequence of the small verb vocabulary based on the frequent verbs of Finnish, the number of individual verbs was also low in Mari and Anna's production. Even though their profiles showed similar features, Mari's error profile was more like the error profiles of the other bilinguals, though her error numbers were a little higher than those of the other bilinguals. The errors in Mari's production were quite different from the errors made by Anna, who made similar errors to the classroom learners. Mari made errors in consonant gradation the most often, so her problem was related more to stem formation. Figures 8.1 and 8.2 demonstrated that she varied the verb forms more than Anna did and that her inflection profiles resembled the inflection profiles of the other bilinguals. Mari did not have any difficulty understanding my questions in the oral tasks, but she was not very talkative, and she only gave short answers to my questions. Her essays included orthographic errors, but they were not problematic to understanding her text.

The size profile in the oral task showed that **Pekka** used many verb lexemes in his oral production. The number of individual lexemes and low-frequency lexemes indicated a good size of verb vocabulary, though in the written tasks, he did not produce that much. The second essay, *The School in Future*, was especially short. In addition, Pekka made some orthographic errors, but there were not any problems understanding his essays. In the oral tasks, he used Finnish without any difficulty, often using the oral dialect forms of Finnish, which indicated that he has used oral Finnish frequently. For example, he used one verb, *tupista*, ‘to mumble,’ that is most often used only in Finnish dialects. In the essays, he confused the verbs *vaihtaa* and *muuttaa*. Both verbs mean ‘to change,’ and both verbs are sometimes used as synonyms, but not in all contexts. The semantic profiles showed that Pekka used many primary A verbs in both types of tasks and more so in the essays; he resembled the other male informant, Kalle, in this respect. Pekka’s error profiles were low, indicating a good knowledge of Finnish verbs. The inflection profiles indicated the most variation in the use of tenses. In the written tasks, he used the affirmative verb forms often, even when his production was compared to the production of the classroom learners.

Tiina had a high size profile, especially in the oral tasks, in comparison to all of the other informants, and she also had a relative high size profile in the essays. Her semantic profile was different from the profiles of all other informants because she used many primary B verbs, especially in her oral production. In particular, she used many cognitive verbs, but she was also the only informant who used other modal verbs besides the three most common in Finnish. She made very few errors in all types of tasks, and she did not make any stem errors, not even in the oral inflection task, where all of the other bilinguals made some errors with the verb stems. The inflection profile demonstrated that she used the unmarked forms in her production quite often. Still, concerning the different forms of mood, she varied her production in the essays more than any other informant. In the essays, she started to narrate the story in the present tense but then changed the tempus to the past tense. She indicated that she was uncertain about which tempus to begin with because she did not know which one is usual in a narrative. Mastering a genre is perhaps something that develops when children grow older, and both Tiina and Anna, the informant who only used the present tense in the narration, were the youngest of the bilinguals. Tiina and Pekka were the only informants who use local case constructions, like *olla menossa*, ‘to be just going,’ in their oral production; these constructions are phraseology that is used frequently in Finnish. Tiina was the most talkative of all the informants in the oral tasks, and she produced more than the other informants in the interview. Tiina also made some orthographic errors in her essays.

8.1.2 Verb proficiency profiles of bilinguals in comparison to language choice and contacts

I will now compare the verb proficiency profiles of the informants and the information gathered on the sociolinguistic questionnaire. In chapter 2, language choice and contacts with Finnish in the families of the informants as well as in northern Norwegian society were discussed. All the bilingual informants started to use Finnish with their Finnish-speaking

mothers and relatives in childhood. Their learning of Finnish started in a natural setting, even though all of them also participated in Finnish lessons. While learning Finnish with their mothers, they participated in the ‘joint attentional scenes,’ or in structured social activities where language was learned in communication between an adult and a child and where the child’s understanding of adults’ communicative intentions forms the basis of the language learning according to Tomasello (1999: 96-118; 2003: 19-31). He described language learning as cultural learning. Not only the usage-based models but also the social interactionist approach of language learning considers interactions with other language users important for the language learning process (Gass 2007: 1-2; see also Section 3.2). Input in and interactions with both languages of a bilingual person were presented as important for the development of proficiency in both languages.

In the group of bilinguals, it was apparent that Anna used Finnish less at home than all of the other bilingual informants. She used Finnish only now and then at home, whereas the other bilinguals used Finnish consistently with their mothers; in these families, a principle called *one person–one language* (Skutnabb-Kangas 1981: 144; Romaine 1989: 166) was used to ensure that the children grew up bilingual. In childhood, Norwegian was, according to the questionnaire, the only language used in reading to Anna, but only Finnish was used when the Finnish mothers of Tiina and Pekka read to their children. So, Anna’s verb proficiency profile in Finnish reflected the fact that she had heard and used Finnish more seldom than the other bilinguals.

The use of Finnish at home seemed to be an important factor in explaining the differences in the verb proficiency profiles between the bilinguals in this project. Also, Huss (1991) concluded that the consistent use of the minority language, that is, the one person-one language principle, was connected to minority language survival in bilingual Finnish-Swedish families in Sweden. Only in those families having this strategy did the children use Finnish spontaneously with the Finnish-speaking parent; in contrast to the families where this principle was not followed consistently, the children used Swedish with the Finnish-speaking parent. Huss pointed out that the one person-one language principle was important because the constant use of the minority language meant that the bilingual children were able to get more input in Finnish compared to situations where the minority language was used only sporadically. As revealed in chapter 2, the bilinguals used Finnish almost exclusively in the family domain; the only exception was the educational domain because they all participated in the Finnish lessons. Similar findings of language use were revealed in earlier studies of the language contacts of Finnish-Norwegian bilinguals in northern Norway (see Andersson & Hjulstad Junttila 1994). Because the other domains where language could be used are few, the language choice in families is of crucial importance. The family domain is presented as the most important domain of language use in many investigations of bilingualism (Romaine 1989).

The consistent use of Finnish seemed to explain the differences in the verb proficiency profiles of Anna and the other bilinguals. Still, in Mari’s family, the Finnish-speaking parent used Finnish consistently with her daughter, so Mari received input in Finnish in the same

way as the other bilinguals who followed the one person-one language principle. However, the verb proficiency profile of Mari included some features that were similar to the proficiency profile of Anna, even though there also were differences. This situation suggested that there were other factors besides input that might explain how the minority language would develop.

I suggest that the factor that made Mari different from Tiina and Pekka was output. Both Tiina and Pekka used Finnish when they answered their Finnish-speaking mothers, but Mari did not. In addition, concerning the use of Finnish with siblings, the informants were different: Finnish was never used with siblings in the families of Anna, Kalle, and Mari; hardly ever in the family of Pekka, but always in the family of Tiina.

As Gass (1990, 2003) pointed out, output is important for language proficiency because it is connected to the development of syntax and morphology. When receiving input, language learners get positive evidence about language structures and are able to make a hypothesis based on this evidence (Berggreen & Tenfjord 1999: 297; look at chapter 2.4). However, as Swain (1995) remarked, output is needed to increase the accuracy of language because output is connected to interaction and interaction is, according to Gass (2003: 247), connected to indirect negative evidence, which means that an adult often gives the correct alternation to an erroneous form, even though adults do not directly correct the linguistic errors of children.

In choosing Finnish over Norwegian outside the family, the bilinguals followed quite a similar pattern: The majority language was used the most often outside the family in the home village. Only Tiina sometimes used Finnish, in contrast to the other Finnish-speaking youngsters. All of the other informants used only Norwegian, even when they met other young people who were able to speak Finnish. Tiina and Anna, who were classmates, used Norwegian together. On the other hand, when communicating with their Finnish relatives, all of the bilinguals followed the same pattern and used only Finnish.

Contact with Finnish or Kven media products did not seem to correlate very well with the verb proficiency profiles of the informants. Although Tiina's family used these media products the most frequently, Anna's family watched Finnish TV and listened to Finnish radio programs less frequently than all of the other families. Reading Finnish newspapers, magazines, and books was a relatively common activity in all of the families, and only in Pekka's family did reading seem to be a less popular activity. The questionnaire did not precisely identify who actually was the person in the family who did all the reading. None of the bilinguals seemed to be very interested in reading, at least not in Finnish, when I asked the bilinguals about the reading habits during the interview. Only Tiina stated that she sometimes read her mother's Finnish magazines. The bilinguals seemed to read surprisingly little in Finnish, if one compares the information they gave to me in the interview to the reading habits the families described in the questionnaire.

A language trainer in Kindergarten did not seem to correlate with the verb proficiency profiles. Anna, Kalle, and Tiina did have a language trainer in Finnish in Kindergarten, but Mari and Pekka did not, even if there were persons who were Finnish or Kven speakers in the

Kindergarten class of Mari. Even if any clear correlation was not possible to point out, one may ask if the possibility of using Finnish outside the home had a positive influence on the language proficiency of the informants. Particularly if the minority language was used only to some degree at home, the possibility of using Finnish outside the home perhaps was important to having communicative competence in Finnish. It was also obvious that Tiina, who had very good oral ability in Finnish and actually did not produce any morphological errors, had more contacts outside the family than the other bilinguals, even if she used Finnish more at home in comparison to the others. The bilingual families in northern Norway who had relatives living nearby on the other side of the border were able to maintain bilingualism in the family more easily than the families who had relatives in southern Finland. A good example of this was Tiina, whose family seemed to have frequent contact with the mother's relatives in northern Finland (see also Paavola 1994).

Even though Anna did not use Finnish at home, she was able to communicate in Finnish. She was able to use the basic verb vocabulary of Finnish, including the nuclear verbs, and such important morphosyntactic categories as tenses. The knowledge of nuclear verbs was presented as an indication of communicative knowledge, because these verbs are connected to the basic constructions of language (Viberg 1993). Because frequent verbs often are used in special conjugation types (see Bybee 2003) having knowledge of the nuclear verbs is also connected to the basic knowledge of verb conjugation. Anna used Finnish regularly in Finnish lessons with her teacher by the time I interviewed her, so the Finnish lessons during the school year were important for the survival and possibly the development of Finnish language. She also used Finnish during the summer holidays with her relatives in Finland, especially with her grandmother, as well as during visits from Finland. Anna's mother remarked that Anna's Finnish language started to flourish during her visits to Finland, where she sometimes travelled without the rest of the family.

All the bilingual informants in the present project can actually be described as "success stories," to borrow an expression from Romaine (1989: 169) because all of them have developed an active command of Finnish. Romaine commented that it is seldom that bilingual children develop full fluency in both of their languages without support from the community, and it was common in the bilinguals' families that the children did not always produce the minority language actively in oral communication, even though they understood it (1989: 169).

Because the educational domain was the only domain in which the bilinguals used Finnish in addition to the family domain in northern Norway, its importance in the development of the Finnish proficiency of the bilinguals was without questioning. The lessons provided possibilities to use Finnish regularly, which was important especially for those bilinguals who did not use Finnish at home. In addition, the school lessons were essential for the development of their proficiency in written Finnish because their other contacts were with the oral use of Finnish as their production proves often.

Still, L2 lessons in mainstream school, which is the type of instruction the Finnish-Norwegian bilinguals get, results in full bilingualism only very seldom (Baker 1993:157). In

Sweden, Finnish immigrant children may choose a Finnish class. According to Janulf, the children who chose Finnish-speaking classes used Finnish at home with their parents and siblings more often than the Finnish immigrant children who chose Swedish classes (1998: 283-284). So, even though the strategy of one person-one language in bilingual families seemed to be an important factor in explaining how the Finnish language skills of the bilinguals developed, the characteristics of the bilingual community also explained why the minority language is better maintained in one rather than in another community.

8.1.3. Verb proficiency profiles of classroom learners

Figure 8.3 presents the verb proficiency profiles of the classroom learners in the oral tasks, and Figure 8.4 shows the profiles in the written tasks.

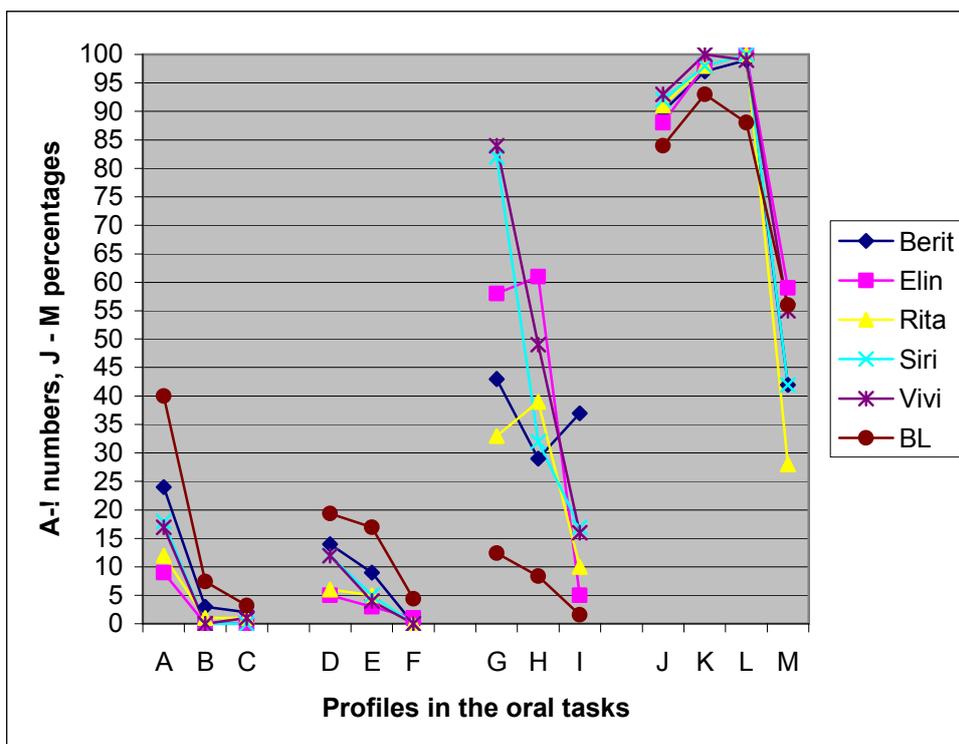


Figure 8.3. Verb proficiency profiles in oral tasks: Classroom learners compared to average values of bilinguals (BL).

Size profile:

A: Number of lexemes in the oral tasks, Table 5.1

B: Number of individual lexemes in the oral tasks, Table 5.8,

C: Number of low-frequency lexemes in the oral tasks, Figure 5.10,

Semantic profile:

D: Number of primary A verbs in the oral tasks, chapter 6.3

E: Number of primary B verbs in the oral tasks, chapter 6.4

F: Number of secondary verbs in the oral tasks, chapter 6.5

Error profile:

G: Errors in the verb identification task, Figure 5.11

H: Errors in the verb inflection task, Tables 7.6, 7.10, 7.11

I: Errors in the oral tasks, Table 7.33

Inflection profile:

J: Affirmative forms in percentages of all finite forms, Appendix 21

K: Indicative forms in percentages of all finite forms, Appendix 23

L: Present tense forms in percentages of all finite forms, Appendix 24

M: 3rd-person singular forms in percentages of all personal forms, Appendix 28

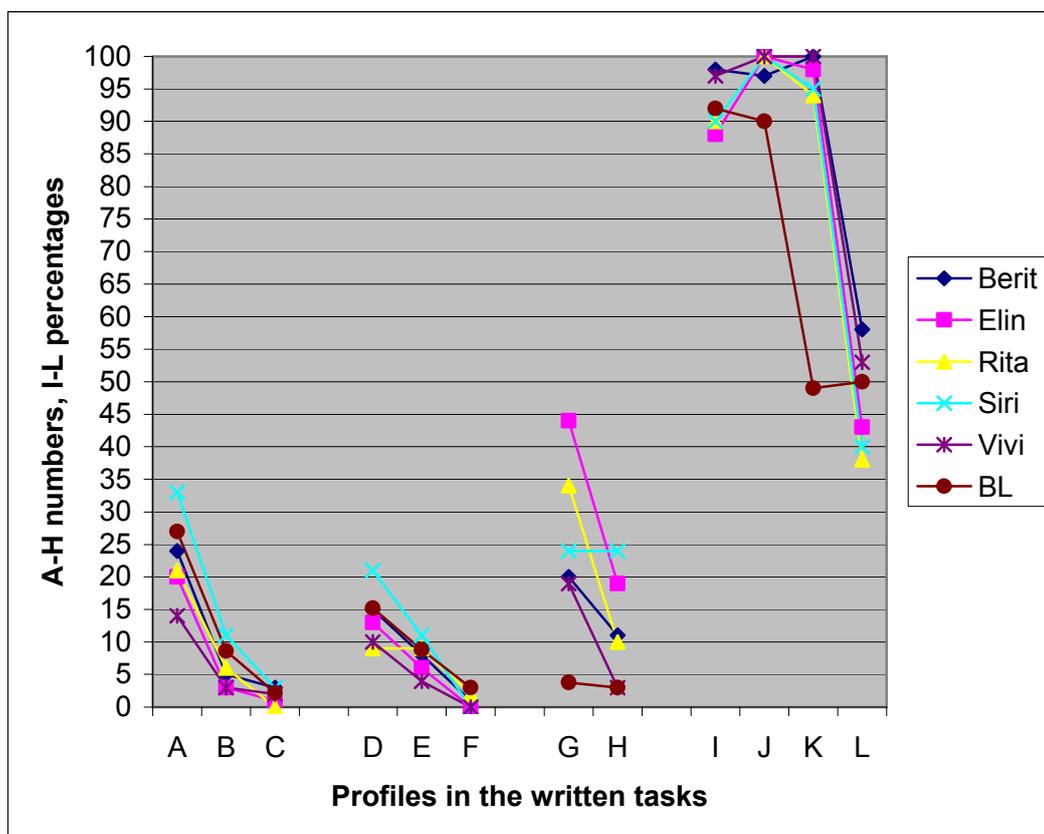


Figure 8.4. Verb proficiency profiles in written tasks: Classroom learners compared to the average values of bilinguals (BL).

Size profile:

- A: Number of lexemes in the essays, Table 5.3
- B: Number of individual lexemes in the essays, Table 5.8,
- C: Number of low-frequency lexemes in the essays, Figure 5.10

Semantic profil:

- D: Number of primary A-verbs in the essays tasks, chapter 6.3
- E: Number of primary B-verbs in the essays tasks, chapter 6.4
- F: Number of secondary verbs in the essays, chapter 6.5

Error profile:

- G: Errors in the multiple-choice task, Tables 7.15 and 7.17
- H: Errors in the essays, Table 7.34

Inflection profile:

- I: Affirmative forms in percentages of all finite forms, Appendix 22
- J: Indicative forms in percentages of all finite forms, Appendix 25
- K: Present tense forms in percentages of all finite forms, Appendix 26

Berit seemed to be a better learner of vocabulary than the other classroom learners. This was obvious in the orals, where her number of verb lexemes was the highest among the classroom learners. She also identified the real Finnish verbs more correctly than the other classroom learners in the verb identification task. Berit was the only informant in the classroom learners who was able to identify all the verbs in Finnish that belong to the 100 most frequent Finnish verbs, according to the *FD*.

Because her verb vocabulary was larger than the vocabularies of the other classroom learners, her size profile was closer to the profile based on the mean value of the bilinguals in the orals. However, Berit used only one modal verb in the essays and no secondary verbs at all in the oral tasks, in contrast to all of the bilinguals. Berit's error profile also was different from the mean value of the bilinguals, and even from the values of the other classroom learners, because she made many errors in her oral production. Large production and many errors seemed to be connected to each other among the classroom learners, especially in the oral tasks. On the other hand, Berit made fewer errors in the oral inflection tasks than the other classroom learners. Still, she made many errors in the negative verb forms in the verb inflection task.

The size profile and the semantic profile of Berit were quite close to, but still under, the average values of the bilinguals in the written tasks. The error profile in the written tasks showed that Berit had few errors in the multiple choice task as well as in her essays. She was able to control her production better in the elicited tasks and in the written production than in the oral production. However, the inflection profile showed that she had only a slight variation in her written production in the use of different verb forms, the only exception being the personal forms. Still, Berit did not have control of the negative verb form in Finnish, and she had problems forming a question using a verb. She used other tenses besides the present tense only once. In the oral tasks, Berit used Finnish more independently than the other classroom learners to express her own thoughts; this may have been the result of her larger vocabulary. Her essays were written using understandable Finnish.

Elin had the smallest vocabulary in the group of classroom learners in the orals and the next lowest in the essays. She did not have any individual lexemes in the orals. Because Elin had a low size profile in the orals, her semantic profile also was low. Her error profile in the orals showed that she made more errors in the oral inflection task than the other classroom learners; on the other hand, she made only a few errors in her oral production. In the written tasks, her size profile was not as low as in the orals, but her error profile was high. Therefore, the low number of errors in her oral production did not indicate a good command of Finnish, but it did indicate low productivity in the oral tasks. Elin made more errors with the personal endings in Finnish than the other classroom learners in the written tasks, in the oral inflection task, and in the multiple-choice task. She often made simple errors because personal suffixes were transparent and they seemed to be learned earlier than, for example, correct stems. Because Elin's verb vocabulary was very small, she often had problems producing anything in the oral

tasks, and because she was not able to complete her utterances, she often produced only fragments. Especially in the interview, her production was exceptional low, so she was able only to produce some Finnish orally in the comic strip tasks because the pictures helped her to some degree. She sometimes got help from me to create sentences in Finnish, but she was also able to pick up expressions from my production. Her essays were difficult to understand, and I often had to guess what she was trying to express.

Rita's size profile showed that she had a relatively low number of lexemes in both the oral and the written tasks in comparison to the other classroom learners. Her error profiles showed some unexpected features both in the oral tasks and in the written tasks: She made few errors in the verb identification task and in her oral and written production. On the other hand, she made many errors in the elicited tasks. Again, it seemed that the low number of errors, especially in her oral production, was probably caused by her low productivity. In the oral tasks, she produced item-based constructions, for example, when using the verbs *haluta*, 'to want.' This verb was repeated many times with little variation in her oral production (see Section 6.4.1.3 & Tomasello 2003: 309). It is possible to avoid errors if there is not much production. Because the verb identification task was a lexical task, a low number of errors in this task ought to have coincided with a large number of lexemes in production, as it did in the group of the bilinguals, but the results of this task in the classroom learners were not as clear as in the bilinguals (look at Section 4.6.1).

The inflection profiles showed that she especially produced many 1st- and 2nd-person forms in the essays because she used dialogue in the second essay, *The School in Future*. She also used correct question forms in her production, but almost only the unmarked forms of mood; however, she varied her use of tenses in the second essay, even producing some perfect forms. All these forms were the perfect form of the verb *olla*, 'to be,' demonstrating formulaic learning (see Tomasello 2003). In the oral tasks, she had difficulty finding the lines of the comic strip figures to begin with, but she was also able to pick up expressions from our conversation. In the interview, she had problems understanding my questions. Her essays were written in understandable Finnish.

The sizes of **Siri's** profile were high in comparison to the other classroom learners, especially in the written tasks. Siri was the informant who produced many verb lexemes in the essays, even more than the bilinguals on average. She also produced many individual lexemes and some low-frequency lexemes in this task. As mentioned before, the most likely reason was her frequent use of the dictionary.

The semantic profiles of Siri showed that she produced many primary A verbs, especially in the essays. Even though the total number of verb lexemes was high, she did not produce any secondary verbs, not even in the essays, in contrast to Berit and Rita, who produced some modal verbs in the essays. The classroom learners in general produced very few secondary verbs. There was no correlation between the large size of the vocabulary in Siri's production and the use of verbs in all three basic semantic fields.

The error profiles showed that Siri made a lot of incorrect identifications of real Finnish verbs, so there did not seem to be any correlation, as one might have expected, between the vocabulary size and the ability to identify Finnish verbs in the verb identification tasks. However, Siri seemed to have followed a restricted strategy in the verb identification tasks, in contrast to some other classroom learners who seemed to have used a more including strategy (look at Section 5.5.1).

The number of errors in Siri's written production was high, demonstrating a correlation between large production and a high number of errors in the classroom learners. The high number of errors in the essays was related to the use of the dictionary probably, meaning that she made errors while using verbs that were not familiar to her. The inflection profiles showed that she varied her production concerning the personal forms and also that she produced negative forms, but only unmarked forms of mood and tenses. The first essay, *One Fine Day*, was very long, and both of the essays were written using understandable sentences, except for a few expressions caused by the use of unfamiliar verbs. Besides Berit, Siri was easy to communicate with in the oral tasks.

Vivi produced more in the orals than she produced in the essays, though her production was quite small in both tasks. In comparison, she produced some low-frequency verbs both in the orals and in the essays. However, the low-frequency verbs used by Vivi were verbs used in oral Finnish, so these verbs were not in the *FD*.

Vivi's semantic profile demonstrated that she used many primary A verbs in the oral tasks. She did not use any secondary verbs at all, not even in the essays. Vivi's error profiles were high in the oral tasks, even in comparison to the other classroom learners. She made a lot of errors in the verb identification task in the same way as Siri did, probably for the same reason. Vivi also made many errors in the oral inflection task. On the other hand, her error profile in the written tasks showed that she made the smallest number of errors in the multiple-choice task among the classroom learners.

In free production, she did not make many errors, but especially in the written tasks, this was probably because she produced only a little. Vivi did not understand all my questions in the interview, and she sometimes had difficulty producing the lines of the comic strip figures in the comic strip tasks. She used Norwegian more often than the other classroom learners. The inflection profiles in the both type of tasks showed that Vivi used more unmarked forms in all subprofiles than the other classroom learners. This fact correlated with the fact that she made relatively more errors, especially in the oral inflection task. Vivi produced understandable sentences in the essays.

8.1.4. Verb proficiency profiles of classroom learners in relationship to input and language use in classroom

The sociolinguistic questionnaire revealed that the classroom learners did not have any contact outside the classroom. The use of Finnish media products in the informants' families

did not seem to have any influence on the informants' verb proficiency in Finnish either. Hence, it was possible to regard the verb proficiency profiles of the classroom learners as the result of language learning in the classroom setting.

The methods of teaching Finnish language to Norwegian pupils are those of foreign language teaching. The number of lessons is 3 hours per week. Even if the classroom learners had been taking Finnish lessons for at least 5 years, their knowledge of Finnish verbs could still be described as basic. This also was true regarding their verb vocabulary and the constructions that they were able to produce with the verbs as well as their knowledge of inflection of Finnish verbs. In the oral tasks, they were able to use quite a few verbs in Finnish; however, they did not know many frequent verbs of Finnish, they did not know such basic constructions as the possessive construction of Finnish, nor did they use modal constructions either. In the oral tasks, they used only one verb with sentence argument. This was because they did not use many verbs that can take infinitive or sentence arguments; therefore, complex constructions were not yet included in their Finnish. They were able to use only the unmarked morphosyntactic categories of Finnish, meaning that they used the indicative in the present tense the most often. They produced only a very few sentences where other moods and tenses were used. They did not produce negative forms of verbs correctly in Finnish the most often; besides that, they were not able to form a question using a verb. They often repeated the same verbs in constructions, which showed little variation in their choice of verbs. Therefore, their learning of Finnish verbs demonstrated formulaic and item-based learning, which is usual at the beginning of language learning (Tomasello 2003).

The textbooks of Slotte (1987, 1991) presented modified input, which was done to help the learners. Therefore, frequent but complicated verb string constructions were not presented in the first volume of Slotte, for example, verb string constructions with the 3rd infinitive were not presented at all. Because the input was modified, the classroom learners used few infinitive constructions, especially in their oral production, and constructions with the 3rd infinitive did not occur at all. Conversely, there were many examples of modal verbs in the second volume of Slotte, but these constructions were seldom used by the classroom learners, and almost entirely in the essays. Modal constructions are difficult to learn (Tomasello 2003), so whether the classroom learners used so few modal constructions because they were difficult for them to learn or because they were presented only quite late in the input is not possible to answer based on the results of the present study. This is a question that can be answered only by conducting a developmental investigation of learning of verb vocabulary. The second volume of Slotte presented the use of the past and perfect tenses, but the classroom learners seldom used these forms, and only with some frequent verbs. All this demonstrated that the language learning process in a classroom moves forward very slowly. On the other hand, it is important to remember that learning the Finnish language is a demanding task for Norwegians because Finnish and Norwegian are not related languages.

The verbs used in the oral tasks by the classroom learners were used frequently in the first volume of Slotte the most often. However, the textbook frequencies do not explain

everything. There were frequent verbs in the input that the classroom learners did not use in their production at all. For example, 1 of the classroom learners did not know the verb *sanoa*, 'to say,' which is a frequent verb in input. On the other hand, they used verbs that were not used frequently in the textbook, such as *kävellä*, 'to walk,' which was used in the oral tasks and the essays to substitute for *mennä*, 'to go,' explained as a transfer error from Norwegian. A frequent verb in the input was the verb *saada*, but only 2 of the classroom learners used it. A possible explanation was avoidance because the verb *saada* is used both as possession verb and as a modal verb. These examples show that the input frequencies and other processes that affect learning worked together (see Tomasello 2003: 175).

Tomasello described child language learning as a gradual process that starts with formulaic and item-based constructions. When vocabulary increases, the constructions become more complicated. This is not very different from how a language is learned in the classroom: Oral use starts with formulaic and item-based constructions (Ellis, N. 2003). The classroom learners were not able to use Finnish fluently in their oral communication and seemed not to have had enough experiences in the oral use of Finnish. They did not have enough linguistic items stored in their memory yet. The correct forms of grammatical regularities were first used with the frequent verbs, for example, the negative verb form was produced with *olla* and *tietää*, the perfect form was used with the verb *olla*, the possessive construction was correctly produced with pronouns, and so on. All these examples demonstrate that formulaic learning is less important in a classroom context than it is in a natural context.

The amount of input and possibility of producing output, and the use of the goal language in interactions, were identified as the differences between natural and educational learning contexts in the first section of the present study. The classroom situation usually offers only restricted possibilities for oral communication. Natural conversation is not very common in the classroom setting (Ellis, R. 1994: 581). Because the use of language is reduced in the classroom context, the process of language learning is slow. How the language was used in the classroom of the informants in the present study was not investigated, but it is reasonable to suppose that their classroom setting was not very different from those of many other language classrooms.

Even though the classroom learners had problems while participating in the oral tasks, their essays were written using a more advanced Finnish compared to their oral production. This means that the declarative knowledge was used in the writing tasks and that these tasks demonstrated that the classroom learners were able not only to use verbs that they did not use in the oral tasks but also constructions and forms of verbs that did not occur in the oral production. There were many errors in the oral tasks because the production was not yet automatic. Automatisation is a process that is supposed to happen as the result of practice, according to the cognitive approach to language learning; however, how this process works is not known very well. According to Hulstijn, fluency in a second language is the result of implicit learning, which is not under conscious control but the result of language use.

Automatisation is associated only with implicit learning. Declarative knowledge, which Hulstijn described as a kind of metalinguistic knowledge, can be used in situations where

language can be processed without time pressures, for example, in writing and reading. Implicit learning ‘takes place autonomously beyond conscious control, whenever they (= learners) engage in listening, reading, speaking or writing activities’ (Hulstijn 2002: 208). Hence, language learning is the result of experiences gained through language use. An important starting point to more creative language use is formulaic learning and item-based learning, according to the usage-based models of language learning (Tomasello 2003; Segalowitz 2002: 403).

8.1.5. Self-estimation of language proficiency of bilinguals and classroom learners

The informants answered a questionnaire in which they had to evaluate their ability to use Finnish in different kinds of situations (see Appendix 9). Many of these situations may have been unfamiliar, especially for the classroom learners, yet many of them were realistic situations, especially for the bilinguals. The questionnaire included oral language use situations, communication situations and oral presentations, and situations where the informants read in Finnish or listened to the radio or watched TV. Language proficiency was evaluated using the following statements:

E1 = I can tell about myself

E2 = I can tell about my family

E3 = I can say the correct phrases when meeting people and when leaving

E4 = I can tell about my own room

E5 = I express myself when I am shopping in Finland

E6 = If a Finnish-speaking person asked me about the way, I can answer

E7 = I can find out the bus and train routes in Finnish

E8 = I can ask a Finnish person to visit me

E9 = I can tell about my hobbies and my interests

E10 = I can tell about my home district

E11 = If I had become sick in Finland, I would be able to explain my illness to a doctor

E12 = If I were a witness to a raid in Finland, I could be able to explain what happened to the police

E13 = I can tell about Norway to Finnish people

E14 = I can discuss most of the things in Finnish

E15 = I can read easy texts (textbook, easy readers) in Finnish

E16 = I can read comics in Finnish

E17 = I can read newspapers in Finnish

E18 = I understand Finnish radio programs

E19 = I understand Finnish TV programs

In addition, the Common European Framework’s self-evaluation as a part of the methodology, the so-called *I can* sentences, resembles the self-evaluation sentences in my questionnaire. The language use situations described in the questionnaire demanded an ability

to use Finnish on different levels. Some of the language use situations in the questionnaire were easy. For example, self-evaluation statements like *I can tell about myself* or *I can tell about my family* belonged to the A1 level (lowest level) of the Common European Framework. Of course, you can tell about yourself and about your family on different levels, but usually, everybody has already learned to say something about these subjects at the beginner's level. Some of the situations described in the questionnaire demanded a relatively high level of language ability, for example, *If I were a witness to a raid in Finland, I could be able to explain what happened to the police* (look at Common European Framework 2001).

The informants graded their ability to use Finnish in these situations. The results of the questionnaire are presented in this section. The results of the self-evaluation were then compared to the verb proficiency profiles of the informants to find out if the language profiles and the self-evaluation values correlated with those in Section 8.1.6.

Results of the self-evaluation of Finnish language proficiency in the group of the bilinguals and the classroom learners are presented in Figure 8.5. The alternatives *a*, *b*, *c*, and *d* in the questionnaire were given the numerical values of 1 to 4, with the highest value of 4 corresponding to alternative *a* in the questionnaire (look at Appendix 9).

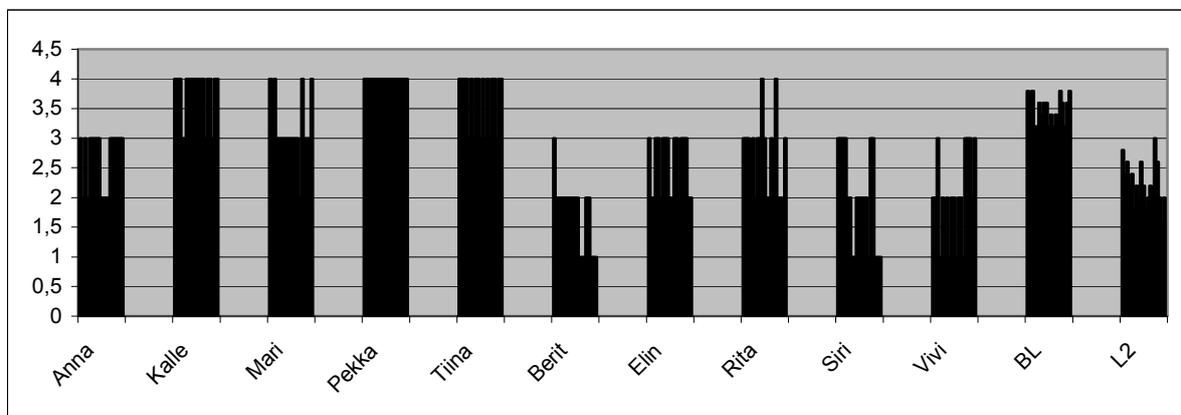


Figure 8.5. Results from questionnaire of evaluating language proficiency in Finnish of bilinguals (BL) and classroom learners (L2).

Anna was the only bilingual who did not choose the best alternative at all. She chose alternative (b) in the questionnaire 13 times, meaning that she estimated her knowledge of Finnish to be quite good. In addition, she chose alternative (b) of the overall estimation of language proficiency E14. She chose alternative (c) of estimations E2, E4, E10, E11, E12 and

E13. There were some incompatible choices in Anna's self-evaluation because she chose a higher evaluation of E14, compared to estimations E2, E4, and E10, which should not have been such difficult tasks. On the other hand, explaining your problems at the doctor's, as in E11, or being a witness and explaining the course of events to the police, as in E12, where she also chose alternative (c), can be regarded as demanding linguistic tasks.

The figure shows that Kalle estimated his proficiency in Finnish by using the highest value in the questionnaire the most often. He chose the next best alternative (b) only in four estimations: E4, E5, E14, and E17. Again, describing his own room caused him some problems, but he also had problems describing shopping in Finland, a situation that one assumed would be familiar to him. Kalle did not use the highest value when evaluating the overall language proficiency estimation E14. Reading Finnish newspapers (E17) was more demanding than reading comic pictures or easy textbooks in Finnish. In the interview, he actually acknowledged that he did not read very often in Finnish.

In the self-evaluation questionnaire, Mari chose alternative (a) 4 times, alternative (b) 14 times, and alternative (c) once. The last one was estimation E14, or the overall estimation, which Mari found to be the most demanding in comparison to the other bilinguals. She evaluated herself with the highest value only in estimations E1, E3, E15, and E19. E1 and E3 ought to have been easy tasks; reading easy textbooks (E15) was evaluated as easier compared to other type of reading by Mari; and watching TV (E19) may actually have been easier compared, for example, to listening to the radio.

Pekka evaluated his proficiency in Finnish with the highest value in all the questions. It showed that he trusted his ability to manage Finnish in all types of situations.

Tiina chose the alternative, indicating the highest level of proficiency in Finnish in the questionnaire in most of the estimations. Still, there were six estimations where she only chose the next best alternation: E5, E7, E10, E12, E14 and E17. So, Tiina also chose alternative E14, or the overall estimation, as more demanding than the other language tasks. Again, a shopping situation (E5), which was a familiar situation for the informant, most likely was evaluated as causing some problems, as was the reading of Finnish newspapers (E17). Finding out bus and train routes (E7) in Finnish was a situation that according to Tiina, could be a demanding situation and one that she eventually experienced. E10 focused on telling about one's home district, and E12 was about being a witness, which Tiina evaluated to be relatively demanding situations to use Finnish.

Berit evaluated her proficiency with the alternatives that indicated the lowest proficiency in Finnish in E12, E13, E14, E17, E18, and E19. E14 was evaluated as difficult by many informants, certainly because it demands a general proficiency in the language, not only a proficiency that is connected to a certain situation or function. In addition, E13 was not connected to a special language function because there are many different things that one can mention about Norway. How proficiency was evaluated in this question perhaps depended on what the informant was planning to say about Norway. E12, on the other hand, was connected

to a special language use situation. To act as a witness, however, was usually evaluated to a situation that demands high language proficiency.

Elin evaluated her language proficiency in Finnish to be above the level of the classroom learners in average. Elin has been more critical than the other classroom learners only in three of the questions: E2, E3, and E10. Her evaluation seemed to be inconsequential because estimations E2 and E3 described language functions that usually are learned early in language classes. Elin may have had more experience with these functions compared to other functions described in the self-evaluation questionnaire, and because of such experience, she was more critical when she evaluated herself in these functions.

Rita chose a higher alternative than the other classroom learners quite often. In E9, when talking about hobbies and interests, and in E15, reading easy texts in Finnish, she evaluated herself using the highest value in the questionnaire. What an 'easy text' is, however, might vary according to who makes the evaluation. Rita chose the lowest alternative, E14, only once to describe her general ability in Finnish.

The self-evaluation figure for Siri shows that she was somewhat less critical than the other classroom learners on average, but there were also questions where she evaluated herself more critically when compared to other classroom learners. She estimated her proficiency to be poor in E7, about the bus route, and E8, about asking a Finn to visit her. In the same way as the other classroom learners, Siri estimated E14, or general language ability, to be demanding. In activities such as reading newspapers (E17), listening to Finnish radio (E18), and watching Finnish TV (E19), Siri was more critical about her proficiency in Finnish than the other classroom learners.

In the majority of the self-estimations, Vivi evaluated her proficiency to be poorer compared to the estimations made by the other classroom learners. She estimated her proficiency to be better compared to the other classroom learners only in E3 and in E16 to E19. It is somewhat surprising that Vivi chose questions E16 to E19 to be easy compared to other estimations in the questionnaire because other classroom learners considered these activities difficult. She seemed to have problems evaluating which kind of activities were easy and which kinds were difficult to master in Finnish. For example, she chose all activities in reading as belonging to those that she was able to carry out easily, even though reading newspapers in Finnish was quite a demanding task according to some of the bilinguals. The explanation for this was perhaps that Vivi compared oral activities to reading activities, not different oral and reading activities to each other.

Figure 8.6 gives a mean value of all estimations made by the informants in the self-evaluation questionnaire.

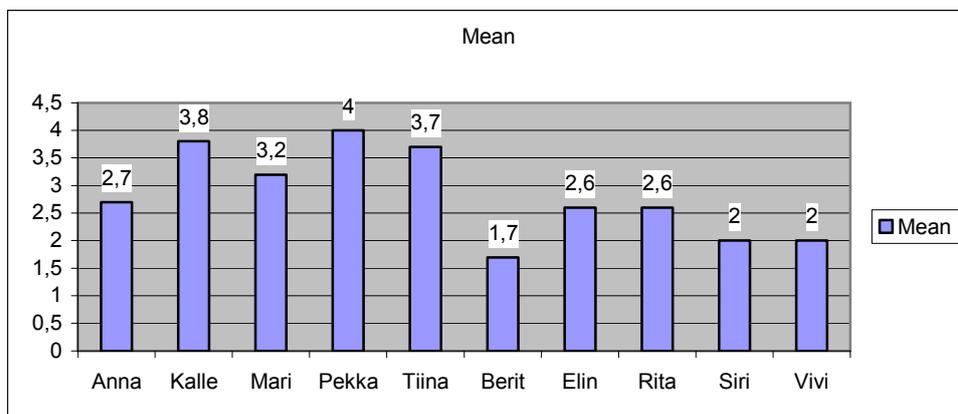


Figure 8.6. Mean values of questionnaire evaluating proficiency in Finnish.

Figure 8.6 shows that all of the bilinguals estimated themselves better compared to the estimations that the classroom learners made of themselves. However, there was only a slight difference in the estimations made by Anna, Elin, and Rita.

The bilinguals seemed to be able to evaluate their language proficiency quite realistically. Anna evaluated her proficiency in Finnish using the lowest values in the group of the bilinguals. Mari evaluated her proficiency using the next lowest values in this questionnaire. If one compares these values to the verb proficiency profiles, a correlation is evident because the verb proficiency profiles of Anna and Mari showed that their knowledge of Finnish verbs was not as good as the knowledge of Tiina, Pekka, and Kalle. On the other hand, when the estimated values of Finnish proficiency and verb proficiency profiles of Tiina, Pekka, and Kalle were compared, one may conclude that Tiina was somewhat more self-critical than the male informants in the self-evaluation.

In the group of classroom learners, there seemed to be no correlation between the self-estimations and the language proficiency profiles of the informants. Berit estimated her language proficiency as the lowest in the group of classroom learners, yet her verb proficiency profiles demonstrated a good knowledge of Finnish verbs. Elin evaluated her language proficiency in Finnish much higher than Berit, even though Berit seemed to master Finnish verbs better than Elin, according to the verb proficiency profiles. It was only in the oral tasks that Berit produced more errors than Elin, but this situation was caused by the fact that Elin produced very little. It seemed, then, that the ability to evaluate one's own language proficiency correlated with the level of language proficiency: Those with a low level of proficiency seemed unable to estimate themselves as well as those with a higher level of language proficiency. The bilinguals seemed to be better able than the classroom learners to evaluate themselves. It was easier to evaluate the language proficiency in an informal context probably because those learning in an informal context actually had used the language in real situations. The bilinguals had more frequent experiences of use, but the classroom learners certainly had few opportunities to use Finnish outside the classroom; therefore, they estimated their language proficiency in an unrealistic way.

8.2. Comparing verb lexicon size and verb conjugation

Because lexicon and grammar form a continuum in the usage-based models, the learning of vocabulary and grammar appear to be connected (Tomasello 2003: 93). Therefore, the correlation between the mastery of verb conjugation and the size of vocabulary in the production of the informants is the focus in this section.

I present the correlation between conjugation and verb vocabulary in the oral tasks in Section 8.2.1 and in the written tasks in Section 8.2.2. The verb vocabulary size is represented as the number of verb lexemes in the orals or in the essays. First, this number is compared to the percentages of unmarked conjugation categories in the production of the informants. I also will compare the number of lexemes to the number of errors in the oral inflection tasks, in the multiple-choice task, and in the oral versus the written production of the informants.

8.2.1. Verb lexicon size and verb conjugation in oral tasks

First, I will compare the verb vocabulary in the oral tasks (the comic strips and the interview) with the conjugation in the same oral tasks. The informants in the figures are ordered according to the number of verb lexemes in the oral tasks. Figure 8.7 presents the correlation between verb vocabulary size and the unmarked conjugational categories in the orals:

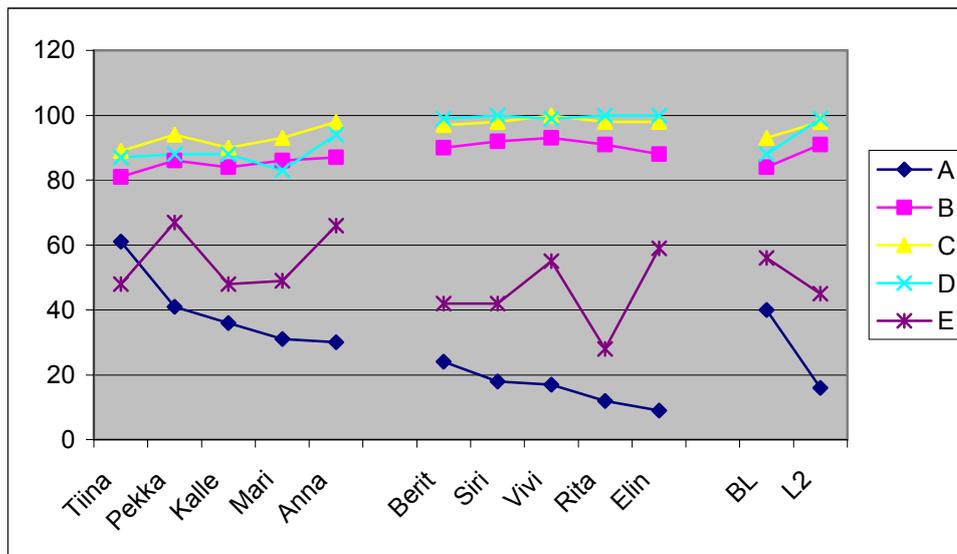


Figure 8.7. Number of verb lexemes compared to percentage of unmarked verb forms in oral tasks of individual informants and bilinguals (BL) and classroom learners (L2).

- A = number of verb lexemes Table 5.1
- B = percentages of affirmative forms Appendix 20
- C = percentages of indicative forms Appendix 22
- D = percentages of present tense Appendix 23
- E = percentages of 3. person singular forms Appendix 27

Figure 8.7 demonstrates that the numbers of lexemes had a negative correlation with three of the grammatical categories: affirmative forms, indicative forms, and present tense forms at the group level. So, the more verb lexemes there were, the lower the percentage of those unmarked categories. This was clearly demonstrated when the two informant groups were compared with each other. In chapter 7, it was concluded that the classroom learners had not learned the most of the morphosyntactic categories tense and mood in Finnish yet; they used verbs the most often in the indicative present tense.

The same tendency between low number of verb lexemes and high percentage of unmarked grammatical categories was evident even for some individual informants, although there were exceptions. If, for example, Tiina and Anna were compared, the same negative correlation was apparent. However, the category of person was different compared to other unmarked categories because the classroom learners used the 3rd-person singular forms less frequently than the bilinguals. The use of 1st and 2nd person was explained to be connected to use of direct speech when the informants quoted the lines of the comic figures in the comic strip task; in the interview the high use of 1st person was explained to be a result of short answers to the questions. The high use of unmarked morphosyntactic categories and the high use of 1st

and 2nd person indicated that the use of the Finnish language was deictic - dependent on the situation and context of use - in the production of the classroom learners.

Figure 8.8 compares the verb vocabulary size and the errors in the elicited tasks and the oral production.

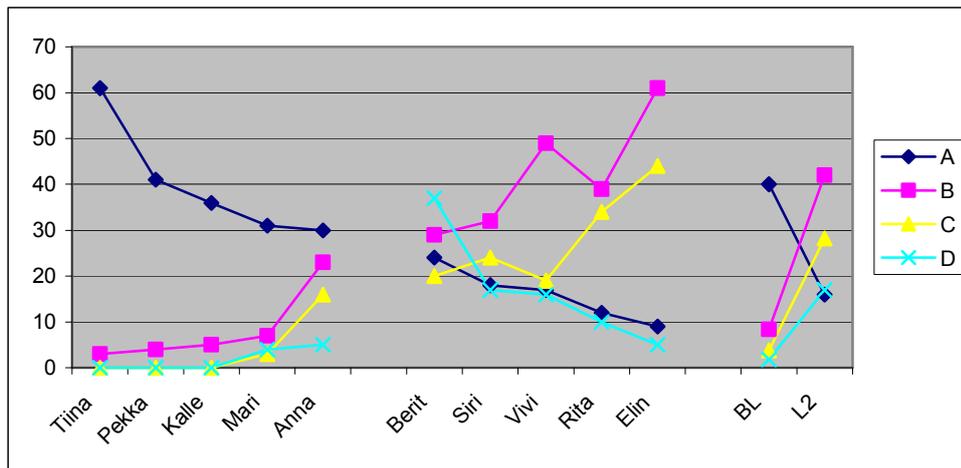


Figure 8.8. Number of verb lexemes compared to errors in elicited tasks and oral production of individual informants and bilinguals (BL) and classroom learners (L2).

- A Number of lexemes in the orals, Table 8.1
- B Number of errors in the oral inflection task, Tables 7.6, 7.10, 7.11 and 7.12
- C Number of errors in the multiple choices task, Tables 7.15 and 7.17
- D Errors in the oral tasks, Table 7.33

Figure 8.8 shows a negative correlation between the size of vocabulary and the errors in the oral inflection and the multiple-choice tasks. The larger the verb lexicon, the fewer errors there were in these tasks. There were only a few informants in the classroom learners who did not follow this model. Vivi made more errors in the oral inflection task than Rita, although Vivi had a larger verb vocabulary than Rita. In the multiple-choice task, Berit and Siri made more errors than Vivi, even though Vivi had a lower number of verb lexemes than these informants.

The morphological errors that the classroom learners made in their oral production demonstrated a positive correlation to vocabulary size, in contrast to the errors made in the elicited tasks: the larger the production, the higher the number of errors. Participating in the oral inflection task was different from producing language in the oral tasks. In the first type of communication, the informant was able to focus only on the verb form. In the second type of communication, the informant was not only focusing on the verb form but also on many other things, so the number of errors increased.

Concerning the bilinguals, the situation was different, however. In this group, only 2 of the informants made some errors in the orals, and 3 of the bilinguals did not have any conjugation errors in their oral production. Therefore, errors in oral production and vocabulary size had a negative correlation in the group of the bilinguals.

8.2.2. Verb lexicon size and verb conjugation in written tasks

In this section, the informants in the figures are ordered after the number of verb lexemes in the essays. First, the number of lexemes and the unmarked categories of grammar are compared in Figure 8.9.

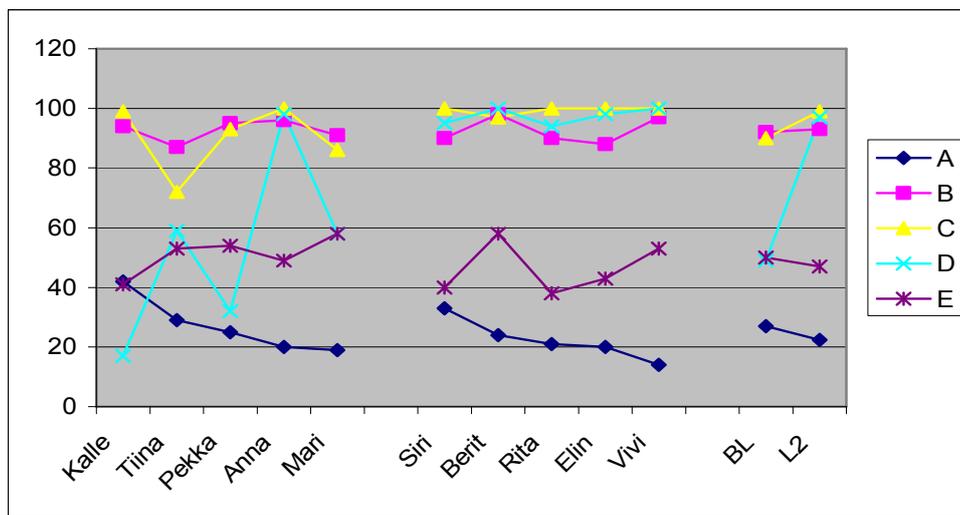


Figure 8.9. Number of verb lexemes compared to percentages of unmarked verb forms in written tasks of individual informants and bilinguals (BL) and classroom learners (L2).

- | | |
|---|-------------|
| A = number of verb lexemes | Table 5.3 |
| B = percentages of affirmative forms | Appendix 21 |
| C = percentages of indicative forms | Appendix 24 |
| D = percentages of present tense | Appendix 25 |
| E = percentages of 3. person singular forms | Appendix 29 |

Figure 8.9 shows that there was more variation in the essays than in the oral tasks in the use of different conjugational forms in the bilinguals. They had variation, especially in the use of tenses and mood in their essays. Only 1 of the bilinguals, Anna, did not have much variation in the use of tenses. The classroom learners varied the personal forms the most often, and they used the 3rd-person singular forms somewhat less often compared to the bilinguals in the same way as they did the oral tasks.

In Figure 8.10, the number of verb lexemes is compared to the oral inflection task, the multiple-choice task, and the conjugation errors that the informants made in the essays.

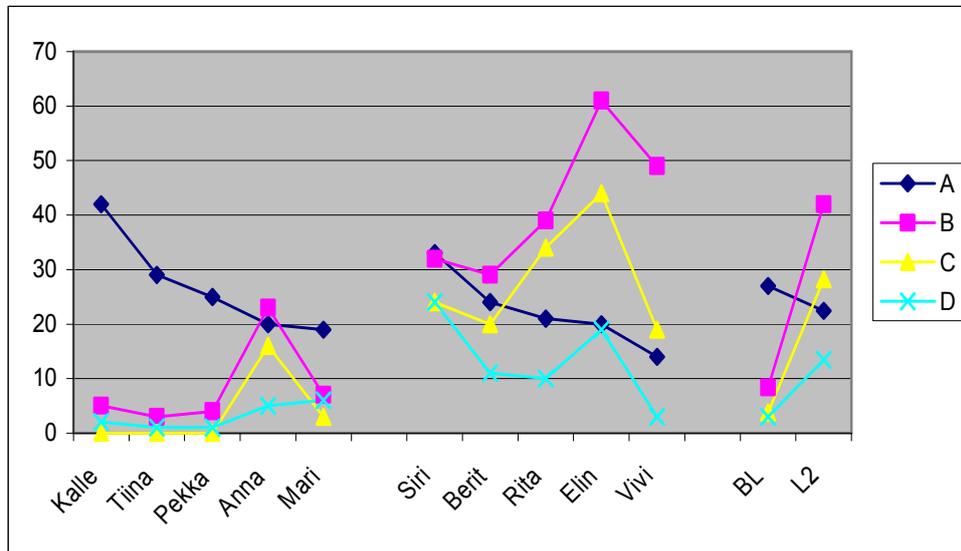


Figure 8.10. Number of lexemes compared to number of errors in elicited tasks and essays in production of individual informants and bilinguals (BL) and classroom learners (L2).

- A Number of lexemes in the essays, Table 5.3
- B Number of errors in the oral inflection task, Tables 7.6, 7.10, 7.11 and 7.12
- C Number of errors in the multiple choices task, Tables 7.15 and 7.17
- D Errors in the essays, Table 7.34

There was a negative correlation between the values of verb lexemes and the errors made in the oral tasks and the multiple-choice task, and the errors made in the essays when the groups were compared to each other. Concerning the individual informants, the correlation between these values was not as apparent. However, the bilingual informants Kalle, Pekka, and Tiina, who had more lexemes than Anna and Mari, made fewer errors in the elicited tasks and the written production. Among the classroom learners, the correlation between vocabulary size and the number of errors was not as clear, probably because the classroom learners used the dictionary when they wrote their essays. There was some tendency that the number of errors in the written production increased when the number of verb lexemes increased, but this tendency was not as clear as in the oral tasks. Still, large production in the essays seemed to cause Siri to make many errors in the essays, even though she had mastered the verb conjugation quite well in the elicited tasks. Elin, who made many errors in the elicited tasks, also made many errors in the essays.

A correlation between verb vocabulary size and knowledge of verb inflection, then, was more clearly demonstrated in the oral tasks. This difference was clear between the informant

groups, as it has been demonstrated in the earlier section: The classroom learners had fewer verbs in their vocabularies, and they did not master the verb conjugation of Finnish as the bilinguals did. Such correlation, however, existed not only between the groups but also between individuals in the groups. Such a correlation seemed to support the assumption made by the usage-based theories of language that the forms of language are always connected to vocabulary (Bybee 2003; Croft & Cruse 2004; Tomasello 2003); therefore, grammar emerged when verb vocabulary grew. A connection between vocabulary size and the emergence of grammar has been demonstrated in child language, language disorders, and real-time language processing by Bates and Goodman (1997; see also Tomasello 2003). Yet, in the free oral production of the classroom learners in particular, but also in the essays to some degree, such a connection was not evident in this study because the inflectional knowledge that the classroom learners demonstrated in the elicited tasks was not automatic, so it disappeared in free production.

9. CONCLUSIONS

9.1. The knowledge of verbs in different learning environments

In this chapter, I compare the knowledge of verbs in different learning contexts, and I pay particular attention to the most characteristic differences between the groups. I summarize the main empirical results from previous chapters, and I discuss the connections between the different dimensions of verbs that were the focus of this study, namely, verb vocabulary size and the organisation of verbs on the basis of frequency, semantics, and conjugation in the informants' verb lexicon. This means that the two factors presented by Meara (1996) as important for lexical knowledge, namely, vocabulary size and organization are discussed in this chapter. In addition, the usage-based model suggests that the vocabulary is represented as a large network in human mind. Even the constructions connected to the verbs are represented as networks in usage-based models (see Taylor 1998). The question is, then, how the verbs that the informants seemed to know were organised in their networks of verb vocabulary. In addition to discussing how these language internal factors were organized in the verb vocabularies of the informants, I also discuss how language external factors are connected to the knowledge of verbs. This question is connected to the assumption in usage-based models that the knowledge of language emerges from language use (Bybee 2003; Croft & Cruse 2004).

Vocabulary size is one indicator of language proficiency. Students with large vocabularies normally have higher language proficiency than those with small vocabularies (Meara 1996). In this study, vocabulary size was expressed as a number of verb lexemes. Especially in the oral tasks, the number of verb lexemes was different between the informant groups because all of the classroom learners produced fewer verb lexemes than did all of the bilinguals, indicating that the bilinguals had larger vocabularies. In the essays, the informants were able to use a dictionary; therefore, some of the classroom learners produced many verbs that they did not use in their oral production, and the vocabulary size in the essays did not make a difference between all individual informants in the two informant groups. In the essays, the classroom learners produced not only more compared to their oral production but also differently than they did in their oral production, and their production was closer to the production of the bilinguals. This was because declarative knowledge can be used in the process of writing (see Hulstijn 2002).

Not only was the verb vocabulary size different between the informant groups, but their vocabularies were organised differently concerning all the investigated dimensions: frequency, semantics, and conjugation. In this study, the bilinguals showed a solid knowledge of the frequent verbs in Finnish. The classroom learners used frequent verbs from their input (textbooks of Slotte 1987, 1991) most often. Especially in the oral tasks, they used verbs that were presented in the first volume of the textbook and repeated in the second one, demonstrating the importance of repetition in word learning (Tomasello 2003).

The classroom learners overused some of the frequent verbs of Finnish in their production, one of these being the most frequent verb in Finnish, *olla*, 'to be.' Earlier studies pointed out

that L2 learners in Finnish overuse this verb (Grönholm 1993; Puro 2002). The complement construction type with the verb *olla* was used frequently especially in the oral tasks; the specific construction types connected to this verb were used more seldom. The possessive construction, which is one example of such specific constructions, was not always formed using the Finnish construction by the classroom learners. In contrast, the bilinguals produced the possessive construction and other specific constructions with the verb *olla* without problems.

The usage-based models of language regard the frequency of use as an important factor in facilitating language learning (Kemmer & Barlow 2000; Bybee 2003: 6). It is possible to conclude on the basis of my material that frequency mattered because frequency affected language learning in both informant groups: The bilinguals used the frequent verbs of Finnish often, and the classroom learners used verbs that occurred frequently in their input. Still, the verb vocabularies of the classroom learners lacked many very frequent verbs of Finnish. For example, they used many of the nuclear verbs, presented by Viberg (1993), less often in the orals than the bilinguals did. In addition, only a small number of the verbs from the textbook were used in the production of the classroom learners. Other factors beside frequency were involved in their vocabulary learning processes (see Tomasello 2003: 175).

The informant groups were not only different in the size of vocabularies and the use of the frequent verbs but also in the semantic organization of their verb lexicons. The analysis of the verbs in the production of the informants in the semantic macro frames was based on the semantic analysis of Finnish verbs in Pajunen (2001). One of the main differences between the two groups was the way they used primary A verbs (concrete verbs), primary B verbs (mental verbs), and secondary verbs (modal verbs and aspectual verbs). Especially in the orals, the classroom learners had only a few verbs in the semantic frames that belonged to the primary B, or mental, verbs and the secondary verbs. The classroom learners used secondary verbs, especially modal verbs and cognitive verbs, quite seldom in the essays, where their production otherwise was more like the production of the bilinguals. So, even if there was not such a big difference between the informant groups concerning vocabulary size in the essays, their vocabularies were still organized differently in the essays as far as which semantic group of verbs was used.

Because modal verbs belong to the most frequent verbs in Finnish, as in other languages, learning them is facilitated by their frequency in an informal context. In the present study, the three most important modal verbs in Finnish, namely, *pitää*, 'must'; *voida*, 'can, be able'; and *saada*, 'to be allowed to,' were used frequently by all the bilinguals. In addition, modal verbs like *pitää* and *voida* are presented as nuclear verbs by Viberg (1993). The classroom learners did not use these verbs except in a few examples, most of which were in the essays, even though the modal verbs *voida* and *saada* were frequent in their textbook (Slotte 1987). Modal verbs are used to form complex constructions because infinitive arguments are connected to these verbs. In addition, complex constructions are formed using mental verbs that can take infinitive and sentence arguments (see Pajunen 2001; Lieko 1992; Tomasello 2003). The verb string constructions of the classroom learners were formed using the verb *haluta*, 'to want,'

the most often; in the oral tasks, the only verb used with a sentence argument was the verb *sanoa*, ‘to say’; actually, both of these verbs are nuclear verbs (see Viberg 1993). Not only the numbers of mental and modal verbs but also the constructions connected to these verbs made a difference between the informant groups. The classroom learners used simple constructions including only the main verb most often. The complex constructions where verbs are used with infinitive or sentence arguments can develop only after mental and modal verbs used with such constructions are learned (see Lieko 1992; Tomasello 2003.)

The nuclear verbs belong to many semantic frames and are, therefore, used in many types of constructions beside the modal constructions or other complex construction (Viberg 1993), like intransitive, transitive and possessive constructions. Viberg (1993) suggested that the learning of nuclear verbs is connected to the development of communicative proficiency in informal language learning. The importance of these verbs to communication is understandable because learning these verbs is connected to learning the basic constructions of language. The bilinguals used the nuclear verbs in these constructions, but the classroom learners seldom used them. These verbs were presented in the input of the classroom learners; however, in the first volume of Slotte, the possession verbs did not occur very frequently. Instead of using the nuclear verb *mennä*, the classroom learners used the verb *kävellä*, ‘to walk,’ frequently, which was a transfer error from Norwegian probably because the Finnish *mennä* has a more general meaning than the Norwegian *gå*. The nuclear verb *tehdä* was used in a question the most often because this verb was used in the similar way in the input (see Slotte 1991). Even though the classroom learners did not use the nuclear verbs *mennä* and *tehdä* frequently, the macro frames where the classroom learners used many verbs were the frames of motion and action; in contrast, they used few verbs of possession and no transitive motion verbs in the oral tasks. This was because the sentences of the classroom learners were simple sentences that included few verb arguments the most often, especially in the orals, and it was possible to use the verbs of motion and action with one argument or two arguments only. In contrast, three arguments often were connected to the verbs of possession and the transitive motion verbs; however, constructions with three arguments seemed to be difficult for the classroom learners to produce correctly. The number of arguments was suggested by Tomasello (2003) as complicating the learning of verbs in child language acquisition.

The informant groups were also different concerning the verb forms they produced and the errors they made in verb conjugation. The classroom learners produced more unmarked verb forms (affirmative forms, present tense forms, and indicative forms) than the bilinguals. The largest difference between the groups was in the use of tenses in the essays, where the bilinguals used past tense forms and also other tenses frequently but the classroom learners used only a few other forms besides the present tense forms, even though these forms were presented in their input (see Slotte 1987). Still, there was one category where the classroom learners used fewer unmarked verb forms than the bilinguals because the bilinguals used the 3rd-person singular forms more often. The low number of 3rd-person singular forms in the production of the classroom learners was connected to the fact that they were not able to expand their answers by adding their comments to the questions of the interviewer, so the 3rd-person singular was used more frequently. In the comic strip tasks, the high percentage of 1st-

and 2nd-person forms in the production of the classroom learners was related to the use of direct speech. The use of indirect speech or mixing of direct and indirect speech demands a complex language use compared to direct speech (see Lieko 1992; Tomasello 2003).

In addition, the errors of conjugation made by the informants indicated differences in their knowledge of Finnish verbs. The most frequent type of errors in the production of the bilinguals was errors in verb stems; the classroom learners made many types of errors besides errors in verb stems. Errors with personal endings were only very few in the production of the bilinguals but still quite usual in the production of the classroom learners. Personal endings in Finnish are semantically transparent because they follow the one meaning-one form principle (see Slobin 1979; Andersen 1990) in most cases. However, the classroom learners mastered the personal forms of verbs better in the elicited tasks and in the essays than in the oral tasks because they were able to focus on form in these tasks. Errors where a verb infinitive form, including the infinitive ending, was used as a verb stem were frequent in the production of the classroom learners. Such errors were even produced by 1 of the bilinguals. However, this error type occurred the most frequently in the oral verb inflection task, so it seemed to be a priming effect caused by the priming form used in this task. Still, it demonstrated that the boundary between stems and suffixes was fuzzy for the language learners, which had been found in other investigations of L2 learning (Kaivapalu 2005).

Stem errors were the most often consonant gradation errors in both informant groups. In all tasks, a consonant gradation increased the number of errors compared to verbs that did not have a consonant gradation. A consonant gradation means a deviation from the principle of one meaning-one form (see Slobin 1979; Andersen 1990), meaning that the conjugation becomes more difficult because the number of stems increases, along with the complexity of the conjugation.

Besides consonant gradation errors, there also were errors related to the verb paradigms in both informant groups. These errors were evidence of different knowledge of verb paradigms in the informant groups. The errors of the bilinguals resembled the mixing paradigm errors in Finnish child language and language contact situation (Laalo 1998; Lindgren 1993). Mixed paradigms are also found in oral Finnish and Finnish dialects (Itkonen, T. 1965; Karlsson 1983). Paradigmatic mixing like the mixing of the bilinguals seemed to demand a larger vocabulary than the classroom learners possessed in the present study. Even the classroom learners seemed to have a schema of the most frequent verb type of Finnish, but their mixing of verb stems did not give evidence that they mixed together the largest verb type (Type I) with the most productive verb type (Type II) as the bilinguals did. As Martin remarked, at the beginning of language acquisition, “the learners have few and imperfect models of analogy” (1995: 32). This was the case with the classroom learners in my project.

The verb vocabulary size correlated with inflectional knowledge. Those with large vocabularies used more marked verb forms and made fewer errors than those with small verb vocabularies. A positive correlation between a large vocabulary size and many marked inflectional forms was not clear among all of the informants, but it was clear when the two groups were compared to each other. A correlation between verb vocabulary size and

knowledge of verb inflection in the present work supported the assumption that the emergence of forms of language is always connected to vocabulary, as the usage-based theories suggests (Bybee 2003; Tomasello 2003).

However, in the oral tasks and in the essays to some degree, the classroom learners who had many verb lexemes also produced many errors. This situation showed the differences between the tasks: In the elicited tasks, it was possible to focus only on form, but the production in the oral tasks in particular demanded focusing on many things simultaneously. The number of errors in oral production showed that the inflectional knowledge of the classroom learners was not yet automatic (look at Segalowitz 2003). The bilinguals, on the other hand, demonstrated a negative correlation between the high number of verb lexemes and the low number of production errors not only in the elicited tasks but also in their oral production.

The size and organization of the verbs in the vocabularies of the informant groups demonstrated important differences with consequences to the more general language proficiency. Frequent verbs of language belong to the basis vocabulary of language. As the analysis of the nuclear verbs demonstrated, the knowledge these verbs is not only knowledge of vocabulary but also is connected to the basic sentence constructions of language (Viberg 1993). The knowledge of verbs in different semantic frames revealed that vocabularies not including modal and mental verbs indicated the use of simple syntax because the infinitive and sentence arguments are used with these verbs (Tomasello 2003). Knowledge of the morphosyntactic categories tense and mood belong to the basic knowledge of language. Tenses are used to refer to situations that are not here and now; mood is used to express the speaker's position in relation to the message in the same way as the modal verbs are used. In addition, errors like those in personal forms or infinitives used as verb stems also demonstrated that the organisation of the verbs in the lexicon of the classroom learners was diffuse; even the paradigmatic errors were indicators of different knowledge of Finnish verbs in the informant groups. Formulaic learning to express some of the marked morphosyntactic categories like perfect or to form questions were used by the classroom learners; in addition, some verbs were repeated frequently with the same arguments, demonstrating item-based learning. Both formulaic learning and item-based learning are found at the beginning of language learning (Ellis, R. 1994; Tomasello 2003). All these differences displayed that the classroom learners' knowledge of the Finnish verbs was very basic compared to the knowledge of the bilinguals. The networks of Finnish verbs in the mental lexicons of the classroom learners were less developed than those of the bilinguals because of their different levels of experience with the Finnish language.

The bilingual informant who used Finnish only now and then with her Finnish-speaking parent was the only informant from this group whose verb proficiency profile had the most similarities with the verb profiles of the classroom learners as the result of reduced input. Still, the verb proficiency profiles of the bilingual informants seemed to indicate that not only input but also the active use of Finnish with the Finnish speaking-parent and with siblings was important. This foundation seemed to mean that interaction, the production of output, not only input, matters. Output is certainly as important in bilingual language learning as it is in

language immersion, according to Swain (1995), because output means that the focus on language forms increases.

The bilingual who had frequent contact with her mother's relatives who lived in Finland near the border with Norway was the most fluent in oral Finnish and did not have any inflectional errors. Feedback is an important factor when the inflectional knowledge of children is developing toward the goal language norm (see Paunonen 1983 [1976]). Frequent interactions with the Finnish-speaking community seemed to explain why this informant had acquired Finnish morphology better than the other bilinguals.

These findings were in accordance with the theoretical assumptions based on usage-based theories. Those with a lot of experience in the language have a better command of the language, meaning that the knowledge of language emerges from language use (Croft & Cruse 2004). Earlier research in multilingual settings had confirmed the same, that is, those with frequent contact with minority language speakers have a better command of the minority language than those who have infrequent contact (Svonnin 1993).

The verb proficiency, based on the informants' knowledge of the verbs in the different tasks in the study, most likely described the language proficiency of the informants even more generally because verbs are such an important part of the structure of language. Still, language proficiency is a much more complicated phenomenon than the knowledge of verbs or even the knowledge of language structure, as shown by Bachman and Palmer (1996). In this study, I made only a very general evaluation of the language proficiency of the informants in the oral tasks and the essays (see Sections 8.1.1-8.1.4).

In the oral tasks, the most important factor was the informants' ability to understand my questions and produce their own expressions. In the essays, the most important task was to produce understandable Finnish text. There often seemed to be a correlation between the informants' knowledge of verbs and the more general proficiency in Finnish; for example, the informant with the fewest verbs in the oral production had problems producing understandable Finnish orally and in the essays. Still, the proficiency of some of the informants was more problematic to analyse because there did not seem to be a clear correlation between their performances in different tasks. When I compared the verb proficiency profiles and the self-evaluations of the informants, the bilinguals evaluated their proficiency in Finnish quite similarly to their verb proficiency profiles, but the situation was different with the classroom learners, who evaluated their proficiency very differently from their verb profiles. This seemed to suggest that those informants with more language proficiency were more capable of making realistic evaluations of their proficiency.

9.2. Evaluation of method in study

The material in the project was gathered using different types of tasks. This meant that triangulation was used to increase the validity of the results. So, the results from the different types of tasks ought to have supported each other so that in case of doubt, a parallel finding from other task(s) would have proven the correctness of the finding. The different tasks in the

project seemed to function in this way, for example, the verb identification tasks seemed to support the assumption that vocabulary size, especially in the oral tasks, also indicated the vocabulary size of the informants more generally. This was because there was a correlation between the oral tasks and the verb identification task: Those with small vocabularies did not identify the real Finnish verbs in the verb identification task as well as those with large vocabularies. Even though the triangulation provided evidence to support the hypothesis, there were problems. For example, this correlation was not as evident in the classroom learners nor in the case of one bilingual who produced many verbs in the essays, even though he did not produce as many in the oral tasks. He also had some problems identifying real Finnish verbs.

I used similar inferences among the different tasks often in the project. A consonant gradation caused many problems for the informants in many of the tasks. Still, the findings based on the different tasks proved that errors made in the verb conjugation by the classroom learners were not caused only by consonant gradation. The fact that the classroom learners also made errors with verb Type III (*saada*), not including a consonant gradation in many tasks, indicated that besides a consonant gradation, other factors caused inflectional errors in the classroom learners. The conclusion that a small and non-canonical verb type was the reason for problems was based on a comparison of the errors and the correct forms in the different tasks.

Even the finding that a large verb vocabulary size and errors made in the elicited tasks had a high negative correlation was based on triangulation. The method proved that knowledge of vocabulary and knowledge of verb inflection were closely connected, a finding that was important theoretically.

However, triangulation did not solve all the methodical problems. One problem was to distinguish between errors of inflection and orthographic errors. This was a particular problem when I analysed the errors in the essays. The same bilingual informants who made errors of consonant gradation in other tasks often seemed to make errors when marking long and short consonants when they wrote Finnish. This suggested that the problem was in mastering the consonant gradation, not making an orthographic error. However, because the consonant gradation errors in the essays and the oral inflection tasks were different, and because the errors in the essays resembled the errors made by Finnish-speaking children, these errors were probably orthographic. Norwegian orthography also seemed to influence how the classroom learners marked long and short consonants and vowels in Finnish. Therefore, the consonant gradation errors in the essays seemed to have many sources, and it was not always possible, even through triangulation, to identify the reason.

The production of the informants in the different tasks was the basic source for the findings. One methodical question was to determine what actually belonged to the production of the classroom learners in the oral tasks. Was a verb that an informant picked up from my line in our discourse one of her verbs? My solution was that if the informant not only repeated the verb but also used the verb in her own production, for example, in a sentence where the verb and its arguments were used, or if she used the same verb later in the discourse, then the verb belonged to her production. In the oral inflection task, it was sometimes difficult to decide

when a classroom learner produced an error, and when she did not. Was the repair of a correct form to an incorrect one an error, or was it not, because the informant actually also produced the correct form? In such cases, I used the principle that all of the positive evidence that I was able to find indicated the inflectional knowledge of the informant.

Using a dictionary when writing the essays was one reason the classroom learners were able to produce more like the bilinguals in this task in comparison to the orals. However, not only verb vocabulary size but also constructions like those with the verb *olla*, 'to be,' produced by the classroom learners in the essays (look at chapter 5) were more like the constructions of the bilinguals; it seemed that the use of the dictionary was not the only reason for a more target-like production in the essays, even though the semantic profiles indicated that there also were differences in the production of the informant groups in the essays. If one of the essays had been written without a dictionary, the impact of dictionary use on production might have been clearer. I assumed that the bilinguals did not use a dictionary when they wrote the essays, even though they were allowed to do so; a methodical problem is that there was not any information about this.

The problem when gathering language material often involves obtaining forms and expressions used in interpersonal communications if it is not possible to record real conversations. In the comic strip tasks, the target for the informants was to produce the lines of the comic strip figures. In these tasks, the informants actually produced many interpersonal verb forms, such as the imperative and the 2nd-person singular, as well as expressions where the deontic modality was used, or such forms and expressions that are normally found in discourse. In the interview, it was not as common to produce interpersonal forms; for example, only one direct question was produced in the interview by the informants. The comic strip tasks were easier than the interview for the classroom learners, during which some of the classroom learners were able to produce only a very little. It was easier for the informants to talk about the pictures in the comic strip tasks than it was for them to find the lines of the figures. In the essays, the narrative genre stimulated past tense forms and the argumentative genre conditional forms; however, this was not the case in the essays produced by the classroom learners. Still, genre seemed to be an important factor that influenced which verb forms the informants produced.

The material also presented inferences about the inflectional processes of the informants in some cases. The errors and self-repairs were an important source for such inferences, particularly because they seemed to uncover the aims of the informants. An analysis of the analogical stem errors of the informants and the representations of verb forms in the mental lexicon were based on inferences about errors and repairs found in the material.

Because the number of informants was low, I did not consider the statistic significance of the results. I made conclusions often on the basis of a small amount of linguistic material from the participants, but I tried to compare my findings with other studies of language learning to evaluate their validity.

9.3. Practical consequences and suggestions for further research

Learning a language in a classroom context without contact with the goal language is a process that takes time. Even if the teaching methods and materials have developed, it is not any easy task to learn a language without contact with the goal language society. Still, this is the situation in many language classrooms.

Textbooks written for new beginners often describe concrete situations, and their syntax is simple in that it includes only main sentences and perhaps avoids both infinitives and sentences as verb arguments. Older textbooks were organized according to a principles based on simplicity, not on the frequency of structures. This was the case with the textbooks of Slotte (1987, 1991), which were often used in Finnish classes in Norway earlier. Today, there are more textbooks available for Finnish L2 learners where frequent structures of Finnish are presented from the beginning.

One practical consequence of the present study is the focus on basic vocabulary learning. Verbs in particular are learned less effectively implicitly, meaning on the basis of teaching materials only. The frequent verbs like the nuclear verbs belong to the basic vocabulary in language, and the basic constructions of language are used with these verbs. This study and earlier research have shown (Viberg 1993) that knowledge of frequent verbs (nuclear verbs) is important knowledge of verbs. The present study suggested that the organisation of verbs in learners' lexicon matters; therefore, a better organisation of verbs would help learners in a formal context to become more competent while communicating in Finnish.

The present study revealed that the bilinguals who learned Finnish in their families had larger and better organized vocabularies of Finnish verbs than the classroom learners did. When the bilinguals were compared with the mother tongue speakers, their language proficiency was often regarded as less valuable because the monolinguals represented the norm. Sundman (1998) pointed out that the proficiency of bilinguals ought to be compared with L2 learners, not just monolinguals, to justify the knowledge of the bilinguals. The language proficiency achieved in a formal classroom seldom develops as a communicative proficiency because there often are too few opportunities to use the target language in real communicative situations, but all of the bilingual informants in this study were able to communicate in Finnish. Therefore, bilingualism is an effective way of learning a language, and it is an important goal for society, not only for bilingual families, to develop the language proficiency of bilinguals.

Another conclusion of the present study is that Finnish as second language cannot have a function as a revitalization program for the Kven minority language. Language revitalization demands more effective language teaching organisation than the organisation in a traditional foreign language classroom. In many minority contexts, the *language nests*, or immersion preschool programs, are used. In this program, the preschool children can participate in 'joint attentional scenes,' where they participate in social activities and the language is learned through natural communication (see Huss & Grima & King 2003;; Tomasello 1999: 96-118:

2003: 19-31). As the present study demonstrated, language learning as cultural learning in the bilingual families was more effective than learning in the classroom setting.

Knowledge of verbs is not only knowledge of vocabulary but also knowledge of the constructions of language. According to the usage-based models, knowledge of language is knowledge of its constructions (Goldberg 1995; Tomasello 2003). In the present study, two groups of learners from different environments were compared, but this study was not a developmental study of language learning. The development of complex constructions of language is connected to the development of verbs, as the investigations of child language development have proven (see Tomasello 2003; Lieko 1992). One factor related to the learning of verbs is input frequency; however, it seems that frequency and other factors connected to the complexity of constructions work together (Tomasello 2003: 175). The complex constructions of language also are connected more generally to language proficiency. A language user who is able to give a personal evaluation of situations has more proficiency than one who describes situations as they are. Modal and mental verbs, besides other linguistic means, are used in such evaluations, but it is not known how these means develop in second language learning and how they are related to the knowledge of verbs. Many questions remain about how verbs are developed in a learner language and how the learning of verbs is connected to the learning of complex constructions and language proficiency more generally.

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APPENDICES

APPENDICES

Datatilsynet

Lena Nüranen
Høgskolen i Finmark
Avd for barnehage og skolefag
Follumsvei 31
9509 ALTA

Deres ref

Vlr ref (bes oppgitt ved svar)
2000/906-2 OFM/-

Date
23.04.2000

KONSESJON TIL Å OPPRETTE PERSONREGISTER IHT RAMMEKONSESJONSORDNINGEN FOR HØGSKOLEN I FINMARK

Datatilsynet har mottatt Deres melding innkommet til oss den 20.03.200 om opprettelse av personregister i forbindelse med prosjektet "Finsk i minoritetskontekst".

Vi har gjennomgått materialet og gir Dem med hjemmel i personregisterloven § 9, herved tillatelse til å føre det ovennevnte register, og å innhente opplysninger som er gitt i meldingen.

Som registeransvarlig oppnevnes prosjektleder Lena Nüranen.

Datatilsynets tillatelse er gitt på følgende vilkår:

- at betingelsene i rammekonsesjonen for Høgskolen i Finmark blir fulgt.
- at første gangs kontakt opprettes gjennom skolen.
- at personidentifiserbare opplysninger ikke registreres ved hjelp av edb. Det elektroniske register kan inneholde et referansenummer som knytter seg til en manuell navnliste. Denne forutsettes oppbevart adskilt fra det elektroniske register og forsvarlig nedlåst i arkivskap.
- at det innhentes aktivt informert samtykke fra den registrerte og dennes foresatte for alle deler av undersøkelsen. Det forutsettes at samtykket fra respondenten er reelt. Samtykket skal også omfatte en eventuell lagring etter prosjektavslutning i personidentifiserbar form.
- at videobånd oppbevares på forsvarlig måte og nedlåst i arkivskap når de ikke er i bruk.

Postadresse:
Postboks 8133 Dep
00241 CSLO

Kontoradresse:
Tollbugt 3

Telefon:
22 39 89 00

Telefax:
22 42 23 90

Appendix 1

- at det i informasjonen til respondenten klart kommer fram at undersøkelsen er frivillig, og at vedkommende kan trekke seg fra undersøkelsen på et hvilket som helst tidspunkt.
- at det innsamlede materialet slettes/anonymiseres ved prosjektavslutning, senest 31.12.2001.

Dersom prosjektleder ønsker å oppbevare opplysningene i personidentifiserbar form etter prosjektslutt, må arkiveringsspørsmålet først legges frem for Rådet for persondataarkivering i god tid før prosjektavslutning, før spørsmålet igjen forelegges Datatilsynet for avgjørelse.

Med hilsen


Knut-Brudd Kaspersen (e)
eksponert


Ole Fredrik Melleby
rådgiver

Saksbehandler: Ole Fredrik Melleby, telefon 22 39 69 00

Vedlegg: Tattestserklæring

Kopi : Statsfaglig sekretariat, Bergen

Om spørreskjema

For å få informasjon om familier til de ungdommer som deltar i undersøkelsen om finsklæring, har jeg utformet et spørreskjema. Jeg håper at en eller begge foreldrene kan ta seg tid å svare på disse spørsmålene siden de utgjør en svært viktig bakgrunnskunnskap om hvordan ungdommene kommer i kontakt med finsk/kvensk. Det tar ca. 15 minutter å fylle ut skjemaet.

Enkelte spørsmål tilbyr alternativer, for eksempel finsk / kvensk. Dere kan stryke over det alternativet som dere mener ikke er riktig eller ikke passer for deres familie.

Spørreskjema kan levers til finsklæreren eller sendes til Leena Niiranen, Høgskolen i Finnmark, Follumsvei 31, 9509 ALTA. Et konvolutt med frimerke følger med.

Hvis det er noe dere ønsker å spørre om, kan dere ringe til 784 50 258 (arbeid) eller 784 35 406 (privat).

Husk å skrive elevens fornavn på spørreskjemaet!

På forhånd takk!

Vennlig hilsen

Leena Niiranen

Spørreskjema for foresatte som har barn i finskundervisning

Elev: _____ (fornavn)

I) Familie

1. Familien består av

	Fødeland	Morsmål
Mor		
Far		
Annen omsorgsperson		

Antall barn i familien

2. Mor

- klarer seg med finsk /kvensk selv om det ikke er morsmålet
- kan litt finsk/kvensk
- kan ikke finsk/kvensk

3. Far

- klarer seg med finsk/kvensk selv om det ikke er morsmålet
- kan litt finsk/kvensk
- kan ikke finsk/kvensk

4. Annen omsorgsperson

- klarer seg med finsk/kvensk selv om det ikke er morsmålet
- kan litt finsk/kvensk
- kan ikke finsk/kvensk

Hvis dere ikke bruker finsk/kvensk i familien, går dere videre til del III:
Kontakter med kvensk-/finskspåklige.

II) Språklforholdene hjemme

1. Mor far annen omsorgsperson snakker seg i mellom hjemme

- 0 norsk
- 3 finsk/kvensk
- 2 norsk og finsk/kvensk

2. I vår familie har mor far annen omsorgsperson snakket finsk med barnet

- 3 helt siden barnet ble født
- 1-2 siden barnet var _____ år
- 0 ingen har snakket finsk med barnet.

Hvis du/dere svarer bekreftende siste spørsmålet, går du/dere direkte til del III:
Kontakter med kvensk-/finskspåklige.

3. Mor far annen omsorgsperson har brukt finsk med barnet

- 3 helt konsekvent
2 ofte men ikke helt konsekvent
1 av og til

4. Når mor far annen omsorgsperson snakker finsk til barnet, svarer barnet

- 3 alltid på finsk
2 oftest på finsk, men av og til på norsk
1 oftest på norsk, men av og til på finsk
0 alltid på norsk

5. Hvordan reagerer du, hvis du/dere har snakket finsk til barnet, og barnet svarer på norsk?

- 3 prøver å få barnet til å snakke finsk
2 jeg hadde ønsket et svar på finsk, men vil ikke presse barnet
1 jeg synes det er naturlig at barnet svarer på norsk.

6. Når barnet var lite, leste den finsktalende forelderen med barnet

- 3 oftest på finsk
2 både på finsk og på norsk
0 bare på norsk.

7. Hvilket språk bruker søsken seg i mellom?

- 0 bare norsk
1 mest norsk, men også finsk
2 mest finsk, men også norsk
3 bare finsk

8. Når barnet har vokst, har jeg/vi lagt merke til at familien

- 1 bruker mer norsk enn vi brukte før
2 bruker like mye finsk og norsk som før
3 bruker bare finsk

9. Hvis du/dere bruker mindre finsk enn før, hva kan være årsaken til dette?
(Flere alternativer kan avkrysses.)

- det er vanskelig å kommunisere på et språk ikke alle i familien kan
 påvirkning fra omgivelser
 barnet uttrykker seg lettere på norsk
 kamerater er blitt viktigere, og de påvirker språkvalg
 annet, hvilket: _____
-
-

III) Kontakter med kvensk-/finskspråklige

1. I hvilken grad er den finsk /kvenske tradisjonen levende i familiens hjembygd?

- 3 i stor grad levende
- 2 tildels levende
- 1 lite levende
- 0 ikke levende i det hele tatt

2. Hvor mye brukes finsk/kvensk i familiens hjembygd?

- 3 daglig
- 2 temmelig ofte
- 1 relativt sjeldent
- 0 ikke i det hele tatt

3. Har familien kontakter med finsk-/kvenskspråklige i bygda

- 3 ofte
- 2 noen ganger
- 1 meget sjeldent
- 0 aldri

4. Deltar familien i finsk/kvensk foreningsarbeid

- 3 meget aktivt
- 2 noen ganger
- 1 meget sjeldent
- 0 ikke i det hele tatt

5. Treffer barnet finskspråklige kamerater i bygda?

- 3 ofte
- 2 noen ganger
- 1 meget sjeldent
- 0 ikke i det hele tatt
- 0 det finnes ikke finskspråklige barn eller ungdommer i bygda

6. Hvilket språk snakker barna når de treffer hverandre?

- 0 bare norsk
- 1 mest norsk, men også finsk
- 2 mest finsk, men også norsk
- 3 bare finsk

7. Kan/kunne en eller flere av besteforeldrene finsk/kvensk?

Mormor

- kan/kunne finsk/kvensk
- kan/kunne ikke finsk/kvensk

Morfar

- kan/kunne finsk/kvensk
- kan/kunne ikke finsk/kvensk

Farmor

- kan/kunne finsk/kvensk
- kan/kunne ikke finsk/kvensk

Farfar

- kan/kunne finsk/kvensk
- kan/kunne ikke finsk/kvensk

8. Når barnet snakker med besteforeldrene i Norge, hvilket språk brukes da?

- bare norsk
- oftest norsk, meget sjeldent finsk/kvensk
- ofte norsk, men av og til finsk/kvensk
- bare finsk/kvensk
- har ikke besteforeldre i Norge

9. Når barnet snakker med besteforeldrene i Finland, hvilket språk brukes da?

- bare finsk
- oftest finsk, meget sjeldent også _____
- av og til finsk, men også _____
- sjeldent finsk, oftest _____
- ikke finsk i det hele tatt, men _____
- har ikke besteforeldre i Finland

10. Reiser familien til Finland

- 3 ofte
- 2 flere ganger om året
- 1 en gang om året
- 0 meget sjeldent
- 0 aldri

11. Hvor lenge varer opphold i Finland som regel?

- 3 en måned eller lenger
- 2 noen uker
- 1 noen dager
- 0 dagsturer

12. Får familien slektninger eller andre gjester fra Finland på besøk

- 3 flere ganger om året
- 2 en gang om året
- 1 meget sjeldent
- 1 aldri

13. Hvor ofte treffer barnet sine søskenbarn i Finland?

- 3 ofte
2 av og til
1 meget sjeldent
0 ingen søskenbarn i Finland

14. Når disse søskenbarna i Finland og Norge treffer hverandre, blir det brukt

- 3 bare finsk
2 oftest finsk, men også _____
1 av og til finsk, men også _____
0 sjeldent finsk, oftest _____
0 ikke finsk i det hele tatt, men _____

15. Hvor ofte snakker familien med den finske slekten på telefonen

- 3 en gang i uka
2 en gang i månaden
1 sjeldnere en en gang i månaden
0 aldri
0 har ikke slekt i Finland

IV) Finsk/kvensk i media

1. Kjenner du/dere til

3 *Pyssyjokilaiset "Hyvän illan" (CD)*
 Kjenner godt 2 Har hørt om 0 Vet ikke

3 *Meän kieli - meän siivet (videofilm)*
 Kjenner godt 2 Har hørt om 0 Vet ikke

3 *Ei hiva tötta (bok)*
 Kjenner godt 2 Har hørt om 0 Vet ikke

2. Leser noen i familien Ruijan Kaiku som kommer ut i Norge?

- 3 abonnerer
2 leser fast
1 noen ganger
0 aldri
0 kjenner ikke til

3. Leser familien Ruijan Sanomat som kommer ut i Norge?

- 3 abonnerer
- 2 leser fast
- 1 noen ganger
- 0 aldri
- 0 kjenner ikke til

4. Hvis det kommer et program om kvener/finskspråklige i Norge i norsk TV eller radio, er du/dere interessert i det?

- 3 meget interessert
- 2 noe interessert
- 1 lite interessert
- 0 ikke interessert i det hele tatt

5. Hvis det kommer et program om Finland i norsk TV eller radio, er du/dere interessert

- 3 meget interessert
- 2 noe interessert
- 1 lite interessert
- 0 ikke interessert i det hele tatt

6. Hører noen i familien på finsksending i NRK?

- 3 ofte
- 2 av og til
- 1 sjeldent
- 0 aldri
- 0 kjenner ikke til

7. Hører noen i familien finskspråklige CD-er eller kassetter.

- 3 ofte
- 2 noen ganger
- 1 meget sjeldent
- 0 aldri

8. Ser noen i familien finskspråklige videoer

- 3 ofte
- 2 av og til
- 1 meget sjeldent
- 0 aldri

9. Ser familien på riksfinsk TV?

- 3 ofte
- 2 av og til

- 1
0
0
- meget sjeldent
 - aldri
 - kan ikke tas inn hos oss

10. Hører noen i familien på riksfinske radioprogrammer?

- 3
2
1
0
0
- ofte
 - av og til
 - meget sjeldent
 - aldri
 - kan ikke tas inn hos oss

11. Leser noen i familien på finske blad eller aviser?

- 3
2
1
1/2
0
- abonnerer
 - leser fast
 - av og til
 - meget sjeldent
 - aldri

12. Leser noen finske bøker i familien?

- 3
2
1
0
- ofte
 - av og til
 - sjeldent
 - aldri

13.. Låner familien finske bøker fra norsk bibliotek?

- 3
2
1
0
0
- ofte
 - av og til
 - sjeldent
 - aldri
 - kjenner ikke til tilbudet

V) Undervisning i finsk

1. Hvis barnet gikk på barnehagen før skolen, ble det brukt finsk /kvensk på avdelingen

- barnet hadde morsmålstrener i finsk
- det var folk som kunne prate finsk /kvensk på barnehagen
- det var folk som kunne enkelte ord på finsk/kvensk
- ingen kunne finsk/kvensk
- gikk ikke på barnehagen

2. Når har barnet begynt i undervisningen i skolen?

Klasse _____ Alder _____

3. Barnet har fått finskundervisning

- som morsmål
- som andrespråk
- noe annet tilbud, hvilket _____

3. Hvor mange timer undervisning har barnet fått i uka?

- mer enn 3 timer i uka
- 3 timer i uka
- 2 timer uka
- 1 time i uka

4. Skolens tilgang til finsklærere

- Skolen har hatt stabile lærekrefter i finsk.
- Skolen har hatt flere lærere i finsk, men dette har ikke skapt problemer.
- Finsklæreren har skiftet alt for ofte, og dette har skapt problemer.

5. Hvilket læremidler er brukt i finskundervisninga

- finlandssvenske lærebøker, f. eks. Tässä tulemme
- lærebøker som er ment for finske barn i Finland
- lærebøker som er ment for innvandrere i Finland
- læreren har laga materialet selv
- kassetter, videoer, CD
- annet, hvilket: _____

6. Barnets motivasjon til å delta i finskundervisninga

- barnet har stort sett vært godt motivert
- barnets motivasjon har vært varierende
- barnet har vært dårlig motivert

Kan du /dere definere nærmere hvilke faktorer etter din mening påvirker barnets motivasjon?

.....
.....
.....
.....
.....
.....

7. Foreldre har hjupet barnet med finsklekser

- ofte
- av og til
- sjeldent
- barnet har arbeidet helt selvstendig med leksene
- barnet har ikke hatt lekser

8. Har finskundervisning i skolen tilsvart de forventningene du/dere har hatt ?

- i stor grad
- ganske godt
- delvis
- ikke i det hele tatt

9. Hvilke ønsker har du/dere i forhold til finskundervisning i skolen?

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

Spørreskjemaet er fylt ut av

- Mor
- Far
- Annen omsorgsperson

Takk for hjelpa!

Appendix 3

Navn: _____ Skole: _____ Klasse: _____

TEST 1: Du får her en liste med ord. Noen av ordene er bøyd. Skriv JA ved siden av de ordene som du mener er finske ord. Skriv JA bare hvis du er helt sikker! Skriv NEI ved siden av ord som du mener ikke er finske ord. Hvis du er i tvil, skriv NEI. Du får + poeng for riktige svar, og – poeng for feile svar!

- | | | |
|------------------|---------------------|------------------|
| 1. voittaa | 32. huomaan | 64. tahtoa |
| 2. pitää | 33. kuulee | 65. vaieta |
| 3. eivät huomaa | 34. matkia | 66. vihaan |
| 4. kuulla | 35. eivät leiki | 67. malvaa |
| 5. eivät ala | 36. syö | 68. pureskelen |
| 6. hypätä | 37. eivät syski | 69. pääsee |
| 7. saada | 38. eivät ota | 70. leikkii |
| 8. eivät sano | 39. ajatella | 71. vastaan |
| 9. haluta | 40. eivät totea | 72. huutaa |
| 10. eivät malvaa | 41. päästä | 73. istua |
| 11. eivät mene | 42. näkee | 74. arvaa |
| 12. antaa | 43. haluan | 75. ajattelen |
| 13. eivät syö | 44. puhua | 76. sanoo |
| 14. eivät näe | 45. moittia | 77. pidän |
| 15. panna | 46. rielen | 78. hyppään |
| 16. eivät tule | 47. eivät arvaa | 79. arvelee |
| 17. eivät arvele | 48. eivät mutise | 80. ottaa |
| 18. eivät viitsi | 49. eivät ihmettele | 81. annan |
| 19. eivät voita | 50. huomata | 82. näen |
| 20. eivät naura | 51. alkaa | 83. tulee |
| 21. huomaa | 52. eivät kuule | 84. saan |
| 22. kuulen | 53. haluaa | 85. syön |
| 23. olla | 54. nauran | 86. rielee |
| 24. vastata | 55. syskii | 87. toteaa |
| 25. riellä | 56. eivät makaa | 88. eivät käännä |
| 26. pakottaa | 57. määrätä | 89. eivät pääse |
| 27. suuttua | 58. pääsen | 90. makaa |
| 28. voitaa | 59. menee | 91. moitin |
| 29. vihata | 60. tavitella | 92. puhun |
| 30. pureskella | 61. viitsii | 93. syskin |
| 31. nauraa | 62. eivät halua | 94. pakotan |
| | 63. eivät naura | 95. suutun |

96. tavittelen	126. puhuu	156. eivät pureskele
97. panen	127. eivät pidä	157. menen
98. vastaa	128. totean	158. panee
99. olen	129. saa	159. eivät moiti
100. tahdon	130. ajattelee	160. ihmettelen
101. tulen	131. eivät anna	161. eivät matki
102. vaikenen	132. eivät ajattele	162. mennä
103. eivät katso	133. viitsiä	163. syskiä
104. leikin	134. ei pakota	164. arvata
105. makaan	135. istun	165. eivät ole
106. vihaa	136. nähdä	166. katson
107. matkin	137. tavoittelee	167. eivät vaikene
108. kääntää	138. syödä	168. eivät pane
109. mutisee	139. eivät vihaa	169. istuu
110. tahtoo	140. suuttuu	170. arvella
111. malvaan	141. eivät hyppää	171. mutista
112. viitsin	142. mutisen	172. eivät suutu
113. huudan	143. arvelen	173. eivät huuda
114. pureskelee	144. on	174. todeta
115. ihmettelee	145. malvata	175. eivät puhu
116. tulla	146. vaikenee	176. eivät määrää
117. arvaan	147. eivät saa	177. eivät istu
118. moittii	148. eivät vastaa	178. ihmetellä
119. sanon	149. leikkiä	179. katsoa
120. määrään	150. katsoo	180. maata
121. eivät riele	151. otan	
122. hyppää	152. määrää	
123. eivät tahdo	153. matkii	
124. käännän	154. sanoa	
125. alan	155. eivät tavoittele	

Appendix 4

Retkellä Rovaniemellä

Seuraavissa dialogeissa kerrotaan norjalaisista oppilaista ja opettajasta. Oppilaat ovat Nina, Berit, Kristian ja Daniel. Opettajan nimi on Liv. He tulevat opintoretelle Rovaniemelle. Rovaniemellä oppilaat tutustuvat suomalaisen kouluun.

Koulussa

SUOMALAINEN OPETTAJA: Tänään meillä on vieraita Norjasta. Tervetuloa meidän kouluun!

LIV: Kiitos! Oli hyvin hauskaa, että me _____ (saada) tulla tänne! Toivottavasti me _____ (oppia) paljon suomea täällä Rovaniemellä.

OPETTAJA: Mutta tehän _____ (osata) suomea jo oikein hyvin! Ehkä te _____ (kertoa) jotain Norjasta.

LIV: Totta kai! Kristian, _____ (tahtoa) sinä kertoa jotain?

KRISTIAN: Jos sinä _____ (auttaa) minua.

LIV: Miksi sinä _____ (epäröidä)?

Kyllä sinä _____ (osata).

MATTI: Mistä päin Norjaa te _____ (olla) kotoisin?

LIV: Kristian, _____ (vastata) sinä?

KRISTIAN: Me _____ (asua) Pohjois-Norjassa, Altassa.

Mutta minä _____ (kysyä) myös jotain. Mikä Altan nimi on suomeksi tai kveeniksi?

SUOMALAINEN OPETTAJA: Mitä kirjaa me juuri _____ (lukea)? Muistatteko te vai _____ te _____ (muistaa, neg.)?

SIRKKA: Minä _____ (tietää). Altan nimi on suomeksi Alattio. Kirja *Ruijan suomalaisia* kertoo Pohjois-Norjasta ja kveeneistä. _____ (tuntea) te tämän kirjan?

LIV: Tietysti me _____ (tuntea). Oppilaat _____ (lukea) tätä kirjaa ruotsiksi meidän koulussa.

SIRKKA: Niinkö? Miksi te _____ (lukea) (neg.) sitä suomeksi?

LIV: Minusta se on vaikea kirja.

Meidän oppilaat _____ (osata) (neg.) vielä niin paljon suomea.

Välitunnilla

DANIEL: Nyt on välitunti. _____ (haluta) te mennä ulos?

NINA: Minä en halua ulos.

Berit, _____ (nähdä) sinä, että Sirkka _____ (istua) tuolla penkillä.

Tule, Berit! Me _____ (jutella) Sirkan kanssa suomeksi.

SIRKKA: Hei Nina ja Berit. Minä olen hirveän nälkäinen.

BERIT: Anteeksi, Sirkka, _____ (sanoa) vielä kerran?

Minä _____ (kuulla, neg.) mitään.

Nuo isot pojat _____ (huutaa) niin kovaa.

SIRKKA: Pojat aina vain _____ (meluta) ja _____ (leikkiä.) Minä _____ (vihata) meteliä.

MATTI: Älä nyt, kaikki pojat _____ (huutaa, neg.).

Ja kai sinäkin joskus _____ (leikkiä.)

Esimerkiksi _____ (hypätä) narua.

SIRKKA: _____ (ruveta) sinä riitelemään?

BERIT: Anteeksi, minä _____ (ymmärtää, neg.)

SIRKKA: Kohta on ruokaa. Me _____ (päästä) syömään.

BERIT: Hyvä. Minulla on nälkä. Nina, mitä *lunsj* on suomeksi?

NINA: Minä _____ (ajatella) *Lunsj* ???

En tiedä, mutta minä _____ (arvata). Onko selounainen???

SIRKKA: Se on lounas.

NINA: Sirkka, miksi sinä _____ (hymyillä)? Suomen kieli ei aina ole helppoa.

SIRKKA: Anteeksi. Toivottavasti sinä _____ (suuttua, neg.). Minusta lounainen vain on niin hauska sana.

NINA: Berit, mitä sinä _____ (tehdä) koulun jälkeen?

_____ (voida) sinä lähteä kauppaan?

BERIT: _____ (voida, neg.). Minä _____ (pakata) tavarat. Huomenna _____ (ehdiä, neg.) enää.

NINA: Sirkka, _____ (tulla) sinä minun kanssa kauppaan?

BERIT: Mitä sinä _____ (tarvita) ?

NINA: Minä _____ (tarvita) uuden takin.

SIRKKA: Miksi sinä _____ (ostaa) takin Rovaniemeltä?

NINA: Täällä Rovaniemellä on niin kylmä,

että minä _____ (palella).

SIRKKA: Minä vain _____ (ihmetellä), sillä vaatteet _____ (maksaa) täällä paljon.

NINA: Sinä _____ (arvata, neg.), miten kallista Norjassa on!

SIRKKA: No, me _____ (tavata) sitten koulun jälkeen.

Minä _____ (odottaa) sinua. Rovaniemellä on paljon kauppoja. Mutta nyt kello _____ (soida) ja me _____ (alkaa) syödä.

NINA: Tulen heti, mutta ensin minä _____ (koota) kaikki tavarat laukkuun.

sanit?"
"Mitä sanoit?" kysyy isä. "Me ei tahdota!"
sanoit?"

vastaavat
vastatavat Mikko ja Liisa.
vastaatte

Sitten isä sanoo :” Mitä peliä tuo on? Totta kai te
tullatte tulevat syömään!
tulette

syödätte
Kun syötte ensin pari lihapullaa, saadatte jälkiruoaksi jäätelöä.”
syödä saatte

tulee
Liisa tulet syömään, mutta Mikko
tullaa

käännää
kääntää selkensä isälle. "Mikko
kääntävät

kulta! Tule syömään! “ sanoo isä kiltisti.
"En syön!" huutaa Mikko.
"En syö! “

Isä yrittää olla hauska. Hän
matkii matkiaa Mikkoa: "En tahdo!
matkit

Vihatan
Vihaavat
Vihaan

lihapullia!” Mutta Mikko
ei nauraa.
ei naura. Sitten isä on muka huolestunut:
en nauran.

“Jos sinä
et syöt ei syö, voit tulla sairaaksi. Olipa kerran poika, joka ei
et syö

syönyt lihapullia, ja lopulta hän
tuli tuli kovin sairaaksi. "Kuuletko? "
tullai

sanoo isä. Mikko
epäröidää.
epäröi. Mutta silti hän sanoo: "En kuulen".
epäröit. "En kuule".
"En kuule".

Silloin isä ^{suuttuu} ja hyppää ylös. Hän huutaa: "Täällä ^{määrätän} minä!
^{suuttuaa} ^{määrään}
^{suutun} ^{määräät}

Ja minä tahdon, että sinä syöt!" Mikko ei sano mitään.

Isä ^{huomaat} huomaa, ^{että} oli tyhmää ^{suuttua}. Hän istuu ja ^{alaa} ^{alat} syödä.
^{huomataa,} ^{alkaa}

Lihapullat ^{ovat} ^{olevat} tosi hyviä, hän ^{mutistee.}
^{olla} ^{mutistaa.}
^{mutisee.}

"Sääli, että kaikki pojat ^{ei pitävät} ^{eivät} pidä lihapullista. Hei Mikko,
^{eivät} ^{pitävät}

etkö näet ^{että} kattila on melkein tyhjä?" "Sepä hyvä",
etkö näe ^{että} ^{että} kattila on melkein tyhjä?" "Sepä hyvä",
etkö näetkö

sanoo Mikko. Isä ^{vaietaa} ^{vainee} ja alkaa syödä ^{mutustaa} lihapullia.
^{vaikenee}

"Jos ^{et} ^{tule} ^{nyt} ^{heti,} ^{ei} ^{pääset} ^{tänään} ^{ulos}", sanoo isä.
^{ei} ^{tulee,} ^{et} ^{pääse}

Nyt sinä ^{istut} ^{istuu} ^{kiltisti} ^{pöytään.} "Okei", Mikko sanoo ja ^{istuu} ^{pöytään.}
^{istuat}

"Mutta ^{ei} ^{ottaa} ^{en} ^{otan} ruokaa." Isä ja lapset ^{ette} ^{puhuu} ^{eivät} ^{puhuvat} ^{mitään.}
^{en} ^{ota} ^{eivät} ^{puhu}

Mikko sen kuin ^{istuu}. Isä ja Liisa ^{pureskelevat} ^{pureskelette} ^{ruokaa.}
^{pureskellavat}

Isää harmittaa. Hän ^{menet} menee ikkunan luo. ^{näettekö te?} “Lapset, näkevätkö te?
^{mennää} ^{nähdättekö te?} ”

Täällä meidän ikkunassa on apina. ^{Ettekö te huomaatte?”} Ettekö te huomaa? “
^{Eivätkö te huomata? ”} ”

Liisa ^{et näet} ei näe mitään. Lintu se tietysti oli, ^{arvelet.} Mikko ^{arvella.}
^{ei näkee} ^{arvelee.}

“Lintu? Ei, minusta se oli selvästi apina”, sanoo isä. Hän menee

ikkunan luo. Mutta mitä kummaa? Apina ^{ei ole} ei on enää täällä, “ sanoo
^{en olen}

isä. Hän ^{katsot} katsoo ulos ikkunasta. Samassa Putti-kissa ^{hyppää} hypätää pöydälle
^{katsoo} ^{hyppäät}

ja ^{syödää} syö lihapullat. Mikko ja Liisa nauravat.
^{syötte}

Isä tulee pöydän luo ja ^{ihmettelee} ihmetellää: “Ei yhtään lihapullaa jäljellä! Hyvä!”
^{ihmettelen}

Eikö isä ^{arvataa} arvaa, että se oli Putti? Mikko ja Liisa eivät sano mitään.
^{arvaat}

“Hyvä, että riita loppui. Ja hyvä, että minä ^{voitin!”} voittain !” Mikko ^{ajatellaa.}
^{voittasin!”} ^{ajattelee.}
^{ajattelet.}

“ Haluatteko
“ Haluavatko jäätelöä?” kysyy isä lapsilta. “Jäätelö kuuluu Putille”,
“ Haluatteko

Liisa. Isää naurattaa. “Me annatte
toteaa Liisa. Isää naurattaa. “Me annatte
toteat antaamme jätelö sille apinalle”,
annetaan

ehdottaa Mikko. Sitten isä ja lapset nauravat yhdessä.

He ei puhuvat mitään. Putti maataa ei viitsii
emme puhu makaa laiskana. Se ei viitsi enää leikkiä.
en viitsi

Liisa viedää Putille jätelöä. Mutta Putti ei halua.
vie
viette

Illalla Mikko panee kissanruokaa Putin lautaselle. Kis, kis Putti.
panee
panet

Tule syömään! Mikko kutsuu. Ei. Putti ei halua.

“Putin ei tarvitse syödä, jos se ei halua. Me ei pakoteta sitä.
ei tarvitse
ei tarvitaa

Eikä me moitimme. “ , sanoo isä. Mikko on ihan samaa mieltä.
moitita. “
moiti.”

Minä en pakota. Ja ei moittii.
en moitin.
en moiti.

Appendix 6

AINE 1 / STIL 1

Eräs hieno päivä (*En fin dag*)

Ehkä muistat päivän, joka jostain syystä oli erityisen hieno. Jos et muista mitään erityistä päivää, voit myös kirjoittaa päivästä, jonka haluat kokea – päivän, jolloin jokin tärkeä unelma toteutuu...

Kuvittele, että lähetät aineesi nuorten lehden järjestämään kirjoituskilpailuun.

Saat käyttää sanakirjaa.

Kanskje husker du en dag som av en eller annen grunn var spesielt fin. Husker du ikke noen spesiell dag, kan du også skrive om en dag som du kunne tenke deg å oppleve - en dag en viktig drøm blir oppfylt...

Tenk at du sender din stil til en konkurranse som en ungdomsavis har arrangert.

Du har lov til å bruke ordbok.

AINE 2 / STIL 2

Tulevaisuuden koulu (*Fremtidens skole*)

Vuosituhat on vaihtunut. Kirjoita miten koulu muuttuu tulevaisuudessa. Mitä hyvää on tämän päivän koulussa? Mitä haluat muuttaa? Millaisen koulun toivot lapsillesi?

Voit kuvitella, että tekstisi on mukana tutkimuksessa, joka haluaa selvittää, mitä nuoret nykyisin ajattelevat koulusta ja sen kehittymisestä tulevaisuudessa.

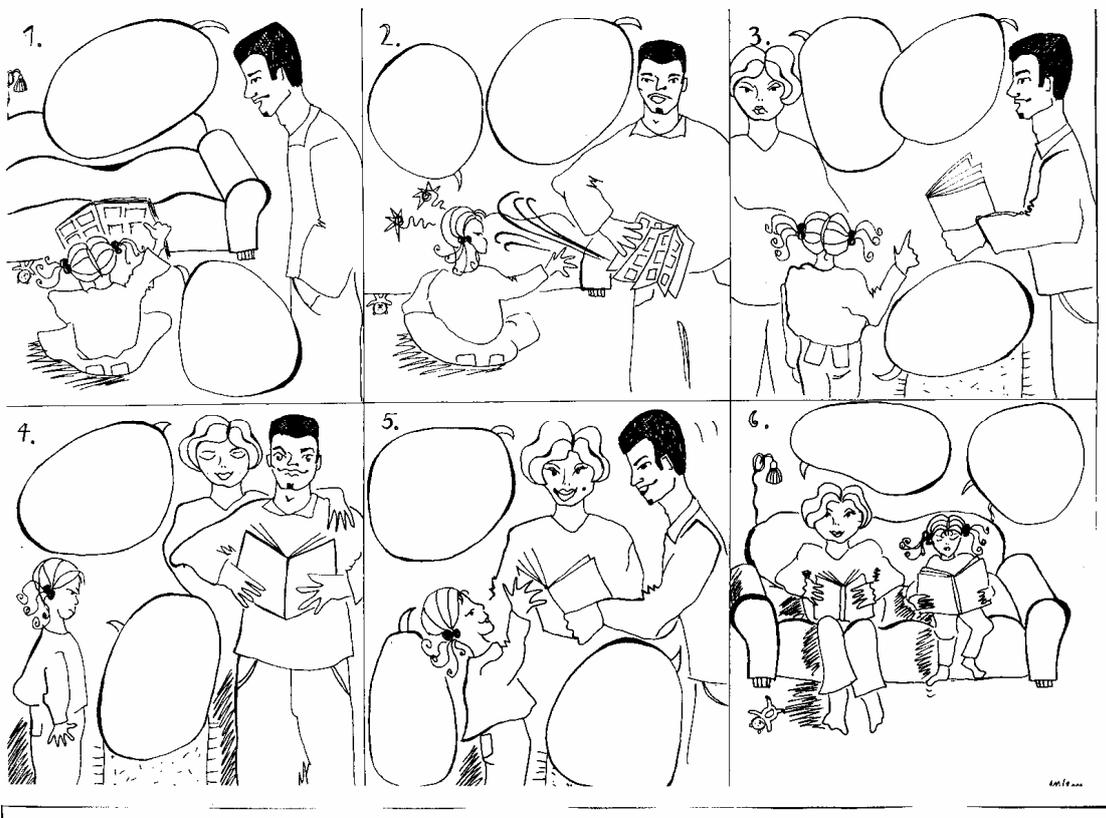
Saat käyttää sanakirjaa.

Vi lever i et nytt årtusen. Skriv hvordan du mener skolen kommer til å forandre seg i framtida. Hva er godt i dagens skole? Hva ønsker du å avskaffe? Hva slags skole ønsker du at dine barn skal få?

Tenk deg at du med din tekst deltar i en undersøkelse som ønsker å kartlegge hvordan dagens ungdommer tenker om skolen og skoleutviklingen.

Du har lov til å bruke ordbok.

Appendix 7



Appendix 8

Kysymyksiä:

Miten vanha sinä olet?

Missä sinä asut?

Mitä koulua sinä käyt?

Millainen tämä koulu on?

Pidätkö sinä koulusta?

Millainen perhe sinulla on?

Milloin sinä heräät aamulla?

Mitä sinä syöt aamulla?

Milloin lähdet kouluun?

Miten kauan koulu kestää?

Milloin tulet kotiin?

Mitä sinä teet koulun jälkeen?

Mitä teit eilen koulun jälkeen?

Mitä teet tänään koulun jälkeen?

Mitä sinä harrastat?

Mitä sinä teet, kun tulet isoksi?

Jos sinä tekisit, jos voittaisit lotossa?

Oletko ollut Suomessa?

Käytkö sinä usein Suomessa?

Missäpäin Suomea olet ollut?

Luetko sinä suomalaisia lehtiä tai kirjoja?

Miten usein?

Katsotko suomalaista TV:tä tai videoita?

Miten usein?

Kuunteletko suomalaista musiikkia?

Montako vuotta sinulla on ollut suomea koulussa?

Appendix 9

Navn: _____ Skole: _____ Klasse: _____

Selvevalueringsskjema

I følgende skjema skal du selv vurdere dine ferdigheter i finsk. Kryss av den vurderingen som passer best når det gjelder deg!

1. Jeg kan fortelle på finsk om meg selv a) alt jeg ønsker
 - b) en god del
 - c) litt
 - d) nesten ingenting
2. Jeg kan fortelle om min familie på finsk a) alt jeg ønsker
 - b) en god del
 - c) litt
 - d) nesten ingenting
3. Når jeg hilser på folk eller går fra folk, kan jeg si på finsk
 - a) alt jeg ønsker
 - b) en god del
 - c) litt
 - d) nesten ingenting
4. Jeg kan fortelle på finsk om mitt eget rom
 - a) alt jeg ønsker
 - b) en god del
 - c) litt
 - d) nesten ingenting
5. Når jeg handler i butikken, kan jeg si på finsk a) alt jeg ønsker
 - b) en god del
 - c) litt
 - d) nesten ingenting
6. Hvis en finlender spør meg om veien, kan jeg forklare på finsk
 - a) alt jeg ønsker
 - b) en god del
 - c) litt
 - d) nesten ingenting
7. Når jeg reiser, klarer jeg å finne ut på finsk når toget eller bussen går
 - a) meget bra
 - b) jeg klarer meg brukbart
 - c) jeg klarer meg så vidt
 - d) nesten ikke i det hele tatt
8. Om jeg ønsker å be en finlender på besøk til meg, kan jeg gjøre det på finsk
 - a) meget bra
 - b) jeg klarer meg brukbart
 - c) jeg klarer meg så vidt
 - d) nesten ikke i det hele tatt
9. Jeg kan fortelle om mine interesser og hobbyer
 - a) alt jeg ønsker
 - b) en god del
 - c) litt
 - e) nesten ingenting

10. Jeg kan fortelle om mitt hjemsted
- a) alt jeg ønsker
 - b) en god del
 - c) litt
 - d) nesten ingenting
11. Hadde jeg blitt syk i Finland, hadde jeg greidd å forklare til legen
- a) alt jeg ønsker
 - b) en god del
 - c) litt
 - d) nesten ingenting
12. Hvis jeg hadde vært vitne til et ran i Finland, hadde jeg klart å varsle politiet og gi en beskrivelse av hendelsesforløpet
- a) meget bra
 - b) jeg hadde klart det brukbart
 - c) jeg hadde klart det så vidt
 - d) jeg hadde nesten ikke klart det
13. Jeg kan fortelle finlendere om Norge
- a) alt jeg ønsker
 - b) en god del
 - c) litt
 - d) nesten ingenting
14. Jeg kan diskutere på finsk om de fleste saker
- a) meget bra
 - b) stort sett om alt
 - c) litt
 - d) nesten ikke i det hele tatt
15. Når jeg leser lette tekster (læreboktekster, letteste bøker) på finsk, forstår jeg
- a) meget bra
 - b) stort sett bra
 - c) veldig lite
 - d) nesten ingenting
16. Når jeg leser finske tegneserier, forstår jeg
- a) meget bra
 - b) stort sett bra
 - c) veldig lite
 - d) nesten ingenting
17. Hvis jeg hører et finskspråklig radioprogram, forstår jeg
- a) meget bra
 - b) stort sett bra
 - c) veldig lite
 - d) nesten ingenting
18. Hvis jeg ser på et finsk TV-program, forstår jeg
- a) meget bra
 - b) stort sett bra
 - c) veldig lite
 - d) nesten ingenting

Appendix 10. Verb tokens in orals of individual informants in relationship to rank intervals presented in *FD*. Not in the d. = not in the dictionary.

Bilinguals											
rank intervals	Anna	%	Kalle	%	Mari	%	Pekka	%	Tiina		
1.	29	18,5	29	22,5	13	13	41	27	76	33,6	
2-100	77	49	54	42	44	44	59	39	60	27	
101-500	38	24	27	21	34	34	34	22	63	27,9	
501-1000	7	4,5	7	5,4	6	6	6	3,9	14	6,2	
1001-3000	5	3,2	7	5,4	2	2	6	3,9	6	2,7	
3001-6000	1	0,6	2	1,6	1	1	2	1,3	1	0,4	
6001-	0	0	2	1,6	0	0	1	0,7	5	2,2	
Not in the d.	0	0	1	0,8	0	0	4	2,6	1	0,4	
Total	157	100	129	100	100	100	153	100	226	100	
Classroom learners											
rank intervals	Berit		Elin		Rita		Siri		Vivi		
1.	39	30,1	15	28,8	11	22,9	24	33,8	30	42,3	
2-100	27	21,3	26	50	6	12,5	10	14	20	28,2	
101-500	41	32,3	8	15,4	17	35,4	23	32,4	11	15,5	
501-1000	5	3,9	0	0	0	0	6	8,5	4	5,6	
1001-3000	12	9,4	3	5,8	13	27,1	8	11,3	4	5,6	
3001-6000	3	2,3	0	0	0	0	0	0	0	0	
6001-	0	0	0	0	0	0	0	0	0	0	
Not in the d.	0	0	0	0	1	2	0	0	2	2,8	
Total	127	100	52	100	48	100	71	100	71	100	

Appendix 11. Verb tokens in essays of individual informants in relationship to rank intervals presented in *FD*. Not in the d. = not in the dictionary.

Bilinguals											
rank intervals	Anna	%	Kalle	%	Mari	%	Pekka	%	Tiina		
1.	22	37,3	15	18,1	19	37,3	12	26,1	23	32,4	
2-100	19	32,2	25	30,1	23	45,1	12	26,1	13	18,3	
101-500	9	15,3	16	19,2	2	3,9	6	13,0	20	28,2	
501-1000	4	6,8	13	15,7	2	3,9	5	10,9	8	11,3	
1001-3000	3	5,1	7	8,4	5	9,8	9	19,6	6	8,4	
3001-6000	1	1,7	1	1,2	0	0	1	2,2	1	1,4	
6001-	0	0	3	3,6	0	0	0	0	0	0	
Not in the d.	1	1,7	3	3,6	0	0	1	2,2	0	0	
Total	59	100	83	100	51	100	46	100	71	100	

Classroom

learners

rank intervals	Berit	Elin	Rita	Siri	Vivi
1.	34 49,3	8 18,2	26 46,4	19 29,7	18 52,9
2-100	8 11,6	15 34,1	9 16,1	5 7,8	3 8,8
101-500	6 8,7	15 34,1	9 16,1	17 26,6	5 14,7
501-1000	7 10,1	4 9,1	3 5,4	4 6,3	2 5,9
1001-3000	9 13,0	1 2,3	9 16,1	16 25,0	4 11,8
3001-6000	2 2,9	1 2,3	0 0	2 3,1	0 0
6001-	3 4,3	0 0	0 0	0 0	1 2,9
Not in the d.	0 0	0 0	0 0	1 1,6	1 2,9
Total	69 100	44 100	56 100	64 100	34 100

Appendix 12:

Slotte , 1st volume (1991) compared to the verb lexemes
of the classroom learners in the oral tasks.

Verbs in text book are counted from p. 36.

	Slotte 1	Lexemes in the oral tasks				
		Berit	Elin	Rita	Siri	Vivi
560	olla	X	X	X	X	X
65	saada		X			X
53	tehdä	X				X
49	tulla	X	X			X
42	nukkua	X		X	X	
39	istua					
36	mennä	X			X	X
26	leikkiä			X		
25	asua	X	X		X	X
23	sanoa	X	X	X		X
20	tarvita	X				
19	ostaa	X			X	
18	piirtää					
16	käydä					X
16	viedä					
15	haluta	X	X	X	X	
13	hypätä					
13	juosta					
13	kirjoittaa					
13	syödä	X			X	X
12	maksaa	X		X		X
11	tietää	X		X		
10	laskea					
10	laulaa	X				

9 herätä					X	
8 leipoa						
8 odottaa						
8 seisoa						
7 ajaa	X					
7 heittää						
7 katsoa	X	X	X	X	X	X
7 kysyä						
7 lukea	X		X	X	X	
7 paistaa						
7 vastata						
6 juoda	X	X		X	X	
6 lähteä						
6 nauraa				X		
6 oppia						
6 pelata			X			
5 auttaa						
5 ehtiä						
5 kulkea						
5 sataa						
4 antaa	X	X		X		
4 hiihtää				X		
4 muistaa						
4 nähdä				X	X	
4 puhua						
3 alkaa						
3 jutella	X					
3 kertoa						
3 kuulla						
3 kävellä	X		X	X		
3 luistella						
3 onkia						
3 ottaa				X		
3 pestä						
3 soida						
3 sulaa						
3 tanssia						
3 voittaa						
2 avata						
2 itkeä						
2 kammata						
2 kasvaa						
2 laittaa						
2 lakaista						
2 maistuu hyvältä						
2 matkustaa						
2 mitä kuuluu?						
2 onnitella						
2 opetella						
2 osata						
2 pakata						
2 poimia						
2 päästä						

2 ratsastaa	X		
2 riisua			
2 siivota			
2 soittaa			
2 tervehtiä			
2 uida			
1 hakea			
1 hyppiä			
1 jakaa			
1 kiittää			
1 loppua	X		X
1 löytää			
1 muuttaa			
1 myydä			
1 maalata			
1 toivottaa			
1 tuntea			
1 täyttää			
1 vaihtaa			
1 vaivata			
1 valita			
0 huutaa			
0 kasvattaa			
0 loistaa			
0 nousta			
0 näyttää			
0 päättyä			

Appendix 13. Shared and individual lexemes in oral tasks of informant groups and individuals in relationship to rank intervals presented in *FD*. Not in the d = not in the dictionary.

Bilinguals	Shared lexemes	Lexemes of individual informants					All lexemes in the group	Percentages of all lexemes in different rank intervals		
		Anna	Kalle	Mari	Pekka	Tiina			sum%	
r.										
1-100	16	0		0	0	0	3	19	21,1	sum%
101-500	21	0		2	1	0	6	30	32,2	53,3
501-1000	5	0		1	1	2	5	14	15,6	68,9
1001-3000	1	3		3	0	5	5	17	18,9	87,8
3001-6000	1	0		1	0	1	1	4	4,4	92,2
6001-11536	1	0		0	0	0	1	2	2,2	94,4
Not in the d.	1	0		0	0	4	0	5	5,6	100
Total	46	3		7	2	12	21	91	100	
Classroom learners										
r.		Berit	Elin		Rita	Siri	Vivi			
1-100	10	0		0	0	1	1	12	34,3	sum%
101-500	5	2		0	0	1	0	8	22,9	57,2
501-1000	2	1		0	0	0	0	3	8,6	65,8
1001-3000	5	0		0	1	2	0	8	22,9	88,9
3001-6000	0	2		0	0	0	0	2	5,7	94,4
6001-11536	0	0		0	0	0	0	0	0	
Not in the d.	0	0		0	1	0	1	2	5,7	100
Total	22	5		0	2	4	2	35	100,1	

Appendix 14. Shared and individual lexemes in essays of informant groups and individuals in relationship to rank intervals presented in *FD*. Not in the d. = not in the dictionary.

Bilinguals	Shared lexemes	Lexemes of individual informants					All lexemes in the group	Percentages of all lexemes in different rank intervals		
		Anna	Kalle	Mari	Pekka	Tiina			sum%	
r.										
1-100	15	0		0	0	0	1	16	18,4	sum%
101-500	7	2		6	0	0	8	23	27,4	44,8
501-1000	3	0		8	1	2	3	17	19,5	64,3
1001-3000	4	2		4	3	2	5	20	23	87

3001-6000	0	1	1	0	1	1	4	4,6	91,9
6001-11536	0	0	2	0	0	0	2	2,3	94,2
Not in the d.	0	1	3	0	1	0	5	5,7	100
Total	29	6	24	4	6	18	87	100,9	

Classroom
learners

r.	Berit	Elin	Rita	Siri	Vivi				Sum %
1-100	7	1	1	2	1	0	12	17,6	
101-500	7	1	3	1	7	1	20	29,4	47
501-1000	4	1	2	2	2	0	11	16,2	63,2
1001-3000	6	1	0	1	7	2	17	25	88,2
3001-6000	1	0	0	0	2	0	3	4,4	92,6
6001-11536	0	2	0	0	0	1	3	4,4	97
Not in the d.	0	0	0	0	1	1	2	2,9	100
Total	25	6	6	6	20	5	68	99,9	

Appendix 15. Shared (BL+L2) and unshared (BL and L2) verbal lexemes between informant groups in oral tasks, individual verbs. Lexemes are presented in relationship to rank intervals in *FD*. Lexemes used by only one informant are marked with the initial letter of the informant using this verb lexeme.

Rank intervals	BL+L2		BL		L2		Total
0-100	Antaa	give	alkaa	Begin			
	Katsoa	look	kuulua T	be heard			
	Käydä	visit	käyttää T	Use			
	Mennä	og	pitää	must, like			
	Nähdä	see	saattaa T	May			
	Olla	be	tapahtua	Happen			
	Otaa	take	voida	Can			
	Sanoa	say					
	Saada	get					
	Tehdä	make					
	Tietää	know					
	Tulla	come					
	12		7				19
101-500	Ajaa	drive	huomata T	Notice			
	Asua	live	istua	Sit			
	Haluta	want	kertoa	Tell			
	Lukea	read	kestää	last, take time			
	Lähteä	leave	kirjoittaa	Write			
	maksaa	cost, pay	kysyä	Ask			
	Ostaa	buy	muistaa	Remember			
	Tarvita	need	muuttaa	Move			
			nousta T	get up			
			näkyä	be seen			
			näyttää M	Look like			
			oppia	Learn			
			osata	can, be able to			
			panna	Put			
			puhua	talk, speak			
			syntyä	be born			
			tuntea T	Know			
			täyttää T	Fill			
			uskoa T	Belive			
			voittaa	Win			
			ymmärtää T	understand			
			yrittää K	Try			
	8		22				30

501-1000	Syödä	eat	aikoa	intend	laulaa B	sing	
			ehtiä T	have time	rakastaa	love	
			hakea	Pick up			
			herättää	Wake up			
			huutaa	Shout			
			juosta P	Run			
			keskustella T	discuss			
			kuunnella T	Listen			
			luulla P	suppose			
			selittää T	explain			
			soittaa M	Play			
			taistaa T	May			
			vaihtaa K	Vary (vaihdella)			
	1		13		2		16
1001-3000	Herätä	wake up (intr.)	ampua K	Shoot	loppua	end	
	Hiihtää	og on ski	harjoitella P	Train			
	Juoda	drink	hymyillä T	Smile			
	kävellä	walk	innostua T	become enthusiastic			
	Leikkiä	play	jaksaa K	be able to, manage			
	nukkua	sleep	kiinnostaa T	interest			
	Pelata	play	kokeilla T	Try			
			lentää K	Fly			
			matkustaa T	Travel			
			säästää P	Save			
	7		10		1		18
3001 – 6000			koittaa K	Try	jutella B	chat	
			lainata T	borrow	ratsastaa B	ride	
			suuttua	become angry			
			tapella P	Fight			
				4	2		6
6001-11536			hyvästellä T	Say good buy			
			tykätä	Like			
				2			2
Not in the Dictionary	pyöräillä	cycle	hölkätä P	Jog	treenata R	train	
			ilahtua P	be delighted			
			ruukata	have a habit			
			tupista P	mumble			
	1		4		1		6
							97

Appendix 16. Shared (BL+L2) and unshared (BL and L2) verbal lexemes between informant groups in essays, individual verbs. Lexemes are presented in relationship to rank intervals in *FD*. Lexemes used by only one informant are marked with the initial letter of the informant using this verb lexeme.

Rank intervals	BL + L2		BL		L2		Total
1-100	Katsoa	look at	alkaa	Start	tapahtua R		
	Käyttää	use	antaa	Give			
	Mennä	og	joutua T	be compelled to			
	Olla	be	nähdä	See			
	Otaa	take	voida	Can			
	Pitää	must, like					
	Sanoa	say					
	Saada	get					
	Tehdä	make					
	Tietää	know					
	Tulla	come					
	11		5		1		17
101-500	Ajaa	drive	ajatella K	Think	autaa B	help	
	haluta	want	elää T	Live	lukea S	read	
	istua	sit	kysyä	Ask	Maksaa E	pay, cost	
	kirjoittaa	write	lähettää K	Send	Näyttää S	show	
	kuulla	hear	odottaa T	Wait	Puhua	talk	
	lähteä	leave	päästä T	manage to get	tarkoittaa E	mean	
	muuttaa	moe	päättää K	Decide	Täytyä R	must	
	oppia	learn	tahtoa T	Want			
	ostaa	buy	viedä T	Take away			
	tarvita	need	voittaa	Win			
	toivoa	hope					
	uskoa	belive					
	vastata	answer					
	13		10		7		30
501-1000	huutaa	shout	ehdottaa K	Suggest	esitellä R	present	
	juosta	run	hakea K	Pick up	myydä E	sell	
	laulaa	sing	heittää K	Cast	rakastaa B	love	
	seisoa	stand	kokea T	Experience	Sulkea S	close	
	soittaa	ring, play	korjata P	Repare	Tutustua R	get to know	
	syödä	eat	kuunnella T	Listen			

			luulla	Suppose			
			opettaa	Teach			
			unohtaa K	Forget			
			vaihtaa P	Change			
			valittaa K	Complain			
	6		11		5		22
1001 - 3000	herätä	wake up	harjoitella T	Train	hymyillä S	smile	
	kävellä	walk	hiihtää P	og on ski	Juoda	drink	
	nukkua	sleep	hypätä	Jump	Laittaa	make	
	paistaa	shine	haastatella T	Interview	loppua S	end	
	pelata	play	kukkia M	Blossom	nauraa	laugh	
			kuvailla T	Describe	noutaa S	pick up	
			lentää T	Fly	Poimia V	pick up	
			miettiä M	Think	pysähtyä S	stop	
			maalata K	Purr	soida B	ring	
			maata M	Lay	uida R	swim	
			pakata A	Pack	vaihtua S	change	
			pestä P	Wash	Viihtyä R	feel comfortable	
			pistaa K	Put			
			pukeutua K	dress oneself			
			suostua T	Agree			
	5		15		12		32
3001-6000			kalastaa P	Fish	Leipoa S	bake	
			syöttää A	Feed	ratsastaa	Ride	
			valloittaa T	Conquer	rentoutua S	Relax	
			vääntää K	Turn on			
			4		3		7
6001-11536			piilottaa K	Hide	Haista V	Smell	
			testata K	Test	kuiskata B	Wisper	
					uneksia B	Dream	
			2		3		5
Not in the dictionary			kehdata K	Care to, bother to	laantua S	lay?	
			kiehuttaa K	Cook	saartaa V	surround	
			purskata P	Rinse			
			pyöräillä A	Cycle			
			startata K	Start			
			5		2		7
	35		52		33		120

Appendix 17. List of verbs not identified in verb identification task. Number after verb is number of verb forms not identified by informants. Verbs in text books Slotte 1 and Slotte 2 are marked S1 and S2.

	Bilinguals	Not identified	Slotte	Classroom learners	Not identified
1	moittia	11		epäröidä	19
2	vaieta	11		vaieta	19
3	todeta	5	S2	maata	17
4	matkia	4		moittia	16
5	maata	4		mutista	16
6	voida	3		todeta	15
7	mutista	3		pureskella	15
8	leikkiä	2	S2	suuttua	14
9	vihata	2	S2	arvata	14
10	hypätä	2		kääntää	13
11	panna	2		ihmetellä	13
12	viitsiä	1		määrätä	12
13	antaa	1	S2	viitsiä	11
14	ottaa	1		arvella	11
15	alkaa	1		matkia	10
16	haluta	1	S2	panna	10
17	määrätä	1	S2	tahtoa	9
18	saada	1	S1	viedä	8
19	viedä	1	S1	alkaa	7
20	epäröidä	1	S2	vihata	7
21	päästä	1	S1	päästä	7
22	kuulla	1	S1	antaa	6
23	ajatella	1	S2	huutaa	6
24	tarvita	1	S1	ottaa	5
25	sanoa	0	S2	huomata	5
26	katsoa	0	S1	kuulla	4
27	puhua	0	S2	voida	3
28	istua	0	S1	saada	3
29	nauraa	0	S1	voittaa	2
30	pitää	0	S2	pitää	1
31	tahtoa	0	S1	leikkiä	1
32	voittaa	0	S1	tarvita	1
33	huutaa	0	S1	sanoa	0
34	kääntää	0	S1	katsoa	0
35	suuttua	0	S1	puhua	0
36	vastata	0	S1	istua	0

37	huomata	0	S1 nauraa	0
38	arvata	0	S1 haluta	0
39	syödä	0	S1 vastata	0
40	olla	0	S1 hypätä	0
41	tulla	0	S1 syödä	0
42	mennä	0	S1 olla	0
43	arvella	0	S1 tulla	0
44	pureskella	0	S1 mennä	0
45	nähdä	0	S1 nähdä	0
46	ihmetellä	0	S2 ajatella	0
			62	300

Appendix 18. Number of verbs and percentages of real Finnish verb forms that informants chose correctly in verb identification task with regard to inflectional type (I-VI) in groups of bilinguals (BL) and classroom learners (L2).

		Bilinguals			Classroom learners		
		Correct cases	All cases	%	Correct cases	All cases	%
Type I:	ALKAA						
no CG		130	135	96	114	135	84
CG		169	185	91	105	185	56
Total		299	320	93	219	320	68
Type II:	HALUTA						
no CG		116	120	97	82	120	68
CG		49	60	82	28	60	47
Total		165	180	92	110	180	61
Type III:	VOIDA						
Total		94	100	94	67	100	67
Type IV:	MENNÄ						
no CG		173	180	96	117	180	65
CG		59	60	98	47	60	78
Total		232	240	97	164	240	68
Type V:	TARVITA						
Total		19	20	95	19	20	95

Type VI:	VAIETA						
Total		9	20	45	1	20	5
All forms							
no CG		532	555	96	399	555	72
CG		286	325	88	181	325	56
Total		818	880	93	580	880	65

Appendix 19. Correct stem alternatives in number and percentage of individual verbs in oral inflection tasks.

A		No consonant gradation				
Aa		Priming stem (=infinitive) is the same as result stem (inflected stem)				
		Correct possibilities	Correct answers	Correct answers	Correct answers	Correct answers
TYPE I			Bilinguals	%	Classroom	%
					learners	
Infinitive	Inflected form					
asua	asumme / asutaan		4		5	
istua	istuu		5		3	
kysyä	kysyn		5		4	
maksaa	maksaa		5		5	
ostaa	ostat		5		5	
sanoa	sanotko		5		4	
Total		30	29	97	26	87
TYPE III						
epäroidä	epäroit		4		1	
saada	saamme / saadaan		4		4	
soida	soi		5		2	
voida	voitko		5		2	
Total		20	18	90	9	45
Ab						
Priming stem is not the same as result stem						
TYPE II						
arvata	arvaan		5		3	

haluta	haluatteko		5		4	
meluta	meluavat		3		0	
osata	osaat		5		3	
osata	osaatte		5		4	
vastata	vastaatko		5		4	
vihata	vihaan		5		3	
Total		35	33	94	21	60

TYPE IV

hymyillä	hymyilet		5		3	
olla	olette		5		5	
palella	palelen		4		2	
päästä	pääsemme / päästään not counted!					
tulla	tuletko		5		4	
Total		20	19	95	14	70

TYPE V

tarvita	tarvitset	not counted!				
tarvita	tarvitsen					

Total TYPE A		105	99	94	70	67
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B Consonant gradation

Ba Priming stem has the same grade as result stem

TYPE I

Huutaa	huutavat		4		5	
Leikkiä	leikkivät		5		3	
Lukea	lukevat		4		4	
Total		15	13	87	12	80

Bb Priming stem has not the same grade as result stem

TYPE I

Alkaa	alamme		2		1	
Auttaa	autat		5		4	
Kertoa	kerrotte		4		3	
Leikkiä	leikit		5		3	
Lukea	luemme		4		0	
Odottaa	odotan		4		4	
Oppia	opimme		3		1	
Tietää	tiedän		5		2	

Tahtoa	tahdotko	4		2	
Tuntea	tunemme / tunnetaan	3		1	
Tuntea	tunnetteko	5		0	
Total		55	44	80	21 38
TYPE II					
Hypätä	hyppäät	5		2	
Koota	kokoan	0		0	
Pakata	pakkaan	4		3	
Ruveta	rupeatko	3		0	
Tavata	tapaamme / tavataan	Not counted!			
Total		20	12	62	5 25
TYPE IV					
Ajatella	ajattelen	4		4	
Ihmetellä	ihmettelen	5		3	
Jutella	juttelemme	3		4	
Nähdä	näetkö	4		1	
Tehdä	teet	5		2	
Total		25	21	84	14 56
Total TYPE B		115	90	78	52 45

Appendix 20. Choices of correct verbs stems in number and percentages in multiple-choice task. Percentages include the affirmative verb forms and the yes/no questions of different verbs types I-VI; the verbs with a consonant gradation (CG) are separated from the verbs without a consonant gradation (no CG).

	Bilinguals			Classroom learners		
	All cases	Correct cases	%	Correct cases	%	
Type I						
ALKAA						
no CG	20	20	100	16	80	
CG	40	38	95	26	65	
Total	60	58	97	42	70	
Type II						
HALUTA						
no CG	30	29	97	23	77	
CG	15	15	100	6	40	
Total	45	44	98	29	64	
Type III						
SAADA	30	29	97	13	43	
Type III						
MENNÄ						
no CG	50	50	100	34	68	
CG	15	15	100	13	87	
Total	65	65	100	47	72	
Type VI						
LÄMMETÄ						
CG	5	4	80	1	20	
no CG	130	128	98	86	66	
CG	75	75	96	46	61	

Appendix 21. Number and percentages of affirmative verb forms, negative verb forms, and question forms of verbs in oral tasks in bilinguals and classroom learners (individuals).

	Affirmative		Negative		Yes/no questions		Total
		%		%		%	
Bilinguals							
Anna	110		15		2		127
Kalle	86		13		3		102
Mari	75		10		2		87
Pekka	119		15		5		139
Tiina	151		26		9		186
Total	541	84	79		12	21	3 641
L2-learners							
Berit	106		11		1		118
Elin	45		4		2		51
Rita	39		3		1		43
Siri	57		2		3		62
Vivi	66		2		3		71
Total	313	91	22		6	10	3 345

Appendix 22. Number and percentages of affirmative verb forms, negative verb forms, and question forms of verbs in essays in bilinguals and classroom learners (individuals).

BL	Affirmative forms	%	Negative forms	%	Question forms	%	Total
Anna	46	96	2		0		48
Kalle	72	94	4		1		77
Mari	39	91	3		1		43
Pekka	39	95	2		0		41
Tiina	47	87	5		2		54
Total	243	92	16	6	4	1.5	263
L2							
Berit	64	98	0		1		65
Elin	37	88	5		0		42
Rita	43	90	1		4		48
Siri	54	90	6		0		60
Vivi	33	97	1		0		34
Total	231	93	13	5	5	2	249

Appendix 23. Mood in oral tasks. Number and percentages of verb forms in indicative, conditional, and imperative in bilinguals and classroom learners (individuals).

	Indicative		Conditional		Imperative		Total
BL		%		%		%	
Anna	125		2		0		127
Kalle	92		0		10		102
Mari	81		1		5		87
Pekka	130		7		2		139
Tiina	166		19		1		186
Total	594		29		18		641
L2							
Berit	114		0		4		118
Elin	50		0		1		51
Rita	42		0		1		43
Siri	61		0		1		62
Vivi	71		0		0		71
Total	338		0		7		345

Appendix 24. Tenses in oral tasks. Numbers of verb forms in present tense, past tense, and perfect of bilinguals and classroom learners (individuals).

	Present	%	Past	%	Perfect		
Bilinguals							
Anna	119		6		2		127
Kalle	90		6		6		102
Mari	72		14		1		87
Pekka	122		15		2		139
Tiina	161		11		14		186
Total	564	88	52	8	25	4	641
Classroom learners							
Berit	117				1		118
Elin	51						51
Rita	43						43
Siri	62						62
Vivi	70		1				71
Total	343	99	1	0.5	1	0.5	345

Appendix 25. Mood in essays. Number and percentages of verb forms in indicative, conditional, and imperative of bilinguals and classroom learners (individuals).

Bilinguals	Indicative	%	Conditional	%	Imperative	%	Total
Anna	48	100	0		0		48
Kalle	76	99	0		1		77
Mari	37	86	5		1		43
Pekka	38	93	3		0		41
Tiina	39	72	15		0		54
Total	238	90	23	9	2	1	263
Classroom learners							
Berit	63	97	1		1		65
Elin	42	100	0		0		42
Rita	48	100	0		0		48
Siri	60	100	0		0		60
Vivi	34	100	0		0		34
Total	247	99	1	0.5	1	0.5	249

Appendix 26. Tenses in essays. Numbers of verb forms in present tense, past tense, perfect and pluperfect of bilinguals and classroom learners (individuals).

Appendix 11: Tenses in the essays									
BL	Present tense	%	Past tense	%	Perfect	%	Pperf.	%	Total
Anna	47	98	0		1		0		48
Kalle	13	17	62		1		1		77
Mari	25	58	15		1		2		43
Pekka	13	32	28		0		0		41
Tiina	32	59	18		1		3		54
Total	130	49	123		4		6		263
L2									
Berit	65	100	0		0		0		65
Elin	41	98	1		0		0		42
Rita	45	94	0		3		0		48
Siri	57	95	1		1		1		60
Vivi	34	100	0		0		0		34
Total	242	97	2		4		1		249

Appendix 27. Tenses in essay 1 and 2. Bilinguals.

Essay 1	Present tense	%	Past tense	%	Perfect	%	Pluperfect	%	Total	
Anna		25	0		1		0		26	
Kalle		5	42		1		1		49	
Mari		9	15		0		2		26	
Pekka		1	28		0		0		29	
Tiina		9	18		0		3		30	
Total		49	31	103	64	2	1	6	4	256
Essay 2										
Anna		22	0		0		0		22	
Kalle		8	20		0		0		28	
Mari		16	0		1		0		17	
Pekka		12	0		0		0		12	
Tiina		23	0		1		0		24	
Total		81	79	20	19	2	2	0	0	103

Appendix 28. Personal forms in oral tasks. Number of bilinguals and classroom learners (individuals).

Appendix 13:

	Singular			Total singular	Plural			Total plural	Total
	Person 1.	2.	3.		Person 1.	2.	3.		
Bilinguals									
Anna	22	5	84		1		15	16	
Kalle	29	13	49		5		6	11	
Mari	21	13	43		2		8	10	
Pekka	16	3	93		15		12	27	
Tiina	64	4	89		12		17	29	
Total	152	38	358	548	35	0	58	93	641
%	24	6	56	86	5	0	9	15	
Classroom learners									
Berit	39	12	49		8	1	9		
Elin	7	4	30		0	0	10		
Rita	22	5	12		3	0	1		
Siri	20	7	26		3	0	6		
Vivi	19	5	39		0	1	7		
Total	107	33	156	296	14	2	33	49	345
%	31	10	45	86	4	1	10	15	

Appendix 29. Active and passive voice in essays. Bilingual informants.

	Active			Passive				Total		
	Indicative	Conditional	Imperative	Total	%	Indicative	Conditional		Total	%
Bilinguals										
Anna	47	0	0			1	0			48
Kalle	75	0	1			1	0			77
Mari	37	5	1			0	0			43
Pekka	34	3	0			4	0			41
Tiina	34	13	0			5	2			54
Total	227	21	2	250	95	11	2	13	5	263

Appendix 30. Personal forms in essays. Number of bilinguals and classroom learners (individuals).

	Singular			Total singular	Plural			Total plural	Total
	Person 1.	2.	3.		Person 1.	2.	3.		
Bilinguals									
Anna	16	1	23		5		2		47
Kalle	32	6	31		6		1		76
Mari	3	1	25		10		4		43
Pekka	6	0	20		10		1		37
Tiina	18	0	25		0		4		47
Total	75	8	124	207	31	0	12	43	250
%	30	3	49	82	12	0	5	17	
Classroom learners									
Berit	13	1	38		7		6		65
Elin	18	1	18		2		3		42
Rita	12	4	18		10		4		48
Siri	19	1	24		5		11		60
Vivi	10	0	18		0		6		34
Total	72	7	116	195	24	0	30		249
%	29	3	47	78	10	0	12		

Appendix 31. Verb string constructions in oral tasks of bilinguals and classroom learners (individuals). Verb string constructions were constructions with finite verb + 1st infinitive (= type 1), finite verb + 3rd infinitive (= type 2), finite verb + 1st infinitive + 3rd infinitive (= type 3), and finite verb + 1st infinitive + 1st infinitive (= type 4).

	Type 1	Type 2	Type 3	Type 4	Total structures	Total infinitives
Bilinguals						
Anna	20	0	0	4	0	24
Kalle	17	4	0	0	0	21
Mari	7	5	0	0	0	12
Pekka	7	3	0	0	1	11
Tiina	18	6	0	0	1	25
Total	69	18	0	4	2	93
Classroom learners						
Berit	5	0	0	0	0	5
Elin	1	0	0	0	0	1
Rita	4	0	0	0	0	4
Siri	6	0	0	0	0	6
Vivi	0	0	0	0	0	0
Total	16	0	0	0	0	16

Appendix 32. Verb string constructions in essays of bilinguals and classroom learners (individuals). Verb string constructions were constructions with finite verb + 1st infinitive (= type 1), finite verb + 3rd infinitive (= type 2), finite verb + 1st infinitive + 3rd infinitive (= type 3), and finite verb + 1st infinitive + 1st infinitive (= type 4)

BL:	Type 1	Type 2	Type 3	Type 4	Total Structure	Infinitive (not in verb string)	Total Infinitives
Anna	9	1	0	0	10		10
Kalle	1	3			4		4
Mari	4	1			5		5
Pekka	2	1	1		4		5
Tiina	7	4	1		12		13
Total	23	10	2		35		37
L2:							
Berit	1			1	2		3
Elin	2				2		2
Rita	3				3	2	5
Siri	3				3		3
Vivi	0				0		0
Total	9			1	10		13

Appendix 33:

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LIST OF ERRORS

Page		ERROR	CORRECT
48	5 th line from bottom 2 nd line from bottom	chapter 5 sections 7.5.8 and 7.5.9	chapter 6 sections 7.5.7 and 7.5.8
80	8 th line from bottom	chapter 5	chapter 6
100	5 th line from top	Figure 4.11	Figure 5.11
104	6 th line from top	Appendices 8 and 9	Appendices 10 and 11
106	5 th line from bottom	Figures 5.4 and 5.7	Figures 5.4 to 5.7.
118	chapter 6.1.4., 2 nd line chapter 6.1.4., 4 th line	chapter 4 Section 4.1.	chapter 5 Section 5.1.
123	2 nd line from bottom	Table 5.2	Table 6.2.
126	3 rd paragraph, 1 st line Same paragraph, 2 nd line	Example 15 Example 16	Example 11 Example 12
149	Footnote 31	Example 46	Example 45
154	2 nd paragraph, 4 th line	Table 5.10	Table 5.11
165	chapter 6.3.4.1. last paragraph	Footnote 14	Footnote 26
167	2 nd paragraph, 3 rd line	example 136	example 98
180	1 st paragraph, 3 rd line	Section 4.3.3.	Section 5.3.3.
188	7 th line from bottom	example 46	example 45
189	2 nd paragraph, 7 th line 3 rd paragraph, 2 nd line	example 189 example 190	example 190 example 191
195	5 th paragraph, 2 nd line 5 th paragraph, 3 rd line	example 209 example 126	example 205 example 94
200	2 nd paragraph, 5 th line 2 nd paragraph, 2 nd line from bottom 5 th line from bottom	sentence 209 example 197 example 272	example 213 example 196 example 211
205	2 nd line from top	example 264	example deleted
207	last paragraph, 3 rd line	example 194	example 145
225	3 rd line from top	Section 6.1.6.	Section 7.1.6.
241	Chapter 7.3.2, 3 rd paragraph, 2 nd line	Section 6.2.	Section 7.1.5.
253	3 rd line from top 2 nd paragraph, 2 nd line	examples 238 & 239 Section 6.5	example 238 Section 7.5.

264	4 th line from bottom	Tables 7.10 and 7.11	Tables 7.11 and 7.12
269	2 nd paragraph, 6 th line	example 257	example 254
273	7 th line from bottom	example 227	example 177
274	2 nd line under table	section 7.6.5.	section 7.5.5.
275	1 st paragraph, 6 th line	example 345	example 283
279	examples	examples 305 to 308	examples 304 to 307
283	2 nd paragraph, 3 rd & 4 th lines	example 160	example 118
286	7 th from bottom 6 th line from bottom	Section 7.6.1. Section 7.6.9	Section 7.5.1. Section 7.5.9
292	7 th line from top	examples 291 & 292	examples 227 & 228
295	1 st line from top	examples 351 to 356	examples 351 to 355
297	1 st paragraph under the examples	Section 6.5.5.	Section 6.5.1.
302	Last paragraph in 7.5.8, 4 th line	Section 6.3.3	Section 6.2.
307	1 st paragraph, 3 rd line from bottom	examples 375 and 382	examples 313 and 320
	2 nd paragraph, 1 nd line	examples 446 to 450	examples 383 to 387
	2 nd paragraph, 2 nd line	examples 383 to 394	examples 388 to 393
308	1 st paragraph, 6 th line from bottom	example 446	example 383
310	2 nd paragraph, 1 st and 2 nd lines	examples 394 to 464 464 and 468	examples 394 to 398 399 to 401
310	4 th paragraph, 1 st line	examples 396 and 378	example 396 and 397
316	6 th line from bottom	Figure 6.3.	Figure 7.3.
319	3 rd paragraph, last line	example 445	example 382
322	2 nd paragraph, 3 rd line 2 nd paragraph, 4 th line	examples 396 and 443 example 441	examples 334 and 380 example 378
331	3 rd paragraph, 4 th line	chapter 2.4	chapter 3.2
359	2 nd paragraph, 4 th line	chapter 5	chapter 6

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Deleted references:

Fillmore, C., Johnson, C. R. & Petruck, M.R.L (2003). Background to Framenet. Fillmore, C., Johnson, C. R. & Petruck, M.R.L (2003). Background to Framenet. *International Journal of Lexicography* 16, 235 – 250.

Appendix 5, page 395: (Multiple choice -task)

The task is based on the following text: Gunilla Bergström (1998): *Enkä! Mikko Mallikas sanoo*. Translated from Swedish by Kaija Pakkanen. Helsinki: Tammi. (First published in Swedish: "Näpp! sa Alfons Åberg." Rabén & Sjögren: Stockholm 1994.

