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The effects of grammar instruction when learning L2 English subject-verb agreement

An investigation of L1 Norwegian learners' acquisition of L2 English

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1 Introduction

In this thesis, I investigate L1 Norwegian learners of L2 English and their difficulties with subject-verb agreement. Subject-verb agreement is a developmental error, and this study will explore why this grammatical construction is problematic in L2 English and whether grammar instruction will affect the learners' knowledge of subject-verb agreement.

The Norwegian language does not have overt agreement morphology, whereas English does. This contrast between languages may be one reason why Norwegian learners of L2 English find subject-verb agreement problematic. A part of the investigation in this thesis will consider the influence of L1 Norwegian when learning L2 English grammar.

The Bottleneck Hypothesis proposes that functional morphology is the bottleneck of L2 English acquisition, and in recent years there have been several studies investigating Norwegian learners of L2 English and their problems with subject-verb agreement. Three of these (Jensen 2016, Jensen 2017, and Jensen et al. 2019) tested the Bottleneck Hypothesis. All three studies used acceptability judgment tasks and found subject-verb agreement to be problematic for Norwegians learning L2 English.

Garshol (2019) did not use an acceptability judgment task but investigated subject-verb agreement in written production by Norwegian learners of L2 English in upper secondary schools in two ways in her doctoral dissertation. First, she collected a data corpus which she analysed and compared to other corpora of learners with different L1s. The second part of her dissertation was implementing a pedagogical intervention designed to decrease the number of subject-verb agreement errors in written production. Due to the lack of usage of the teaching material in the intervention, her results were inconclusive.

Because of little research on the field, the present study is one of the first to investigate the role of instruction in acquisition of subject-verb agreement among Norwegian learners of L2 English. The study combines insights and methods from linguistics and language acquisition as well as from language pedagogy and didactics. This thesis will look at the acquisition of subject-verb agreement, but also examine the role of grammar instruction, and emphasis will be given to the pedagogical domain and language instruction in the English classroom in Norwegian upper secondary school. In this study, a pedagogical intervention was executed, providing the pupils with explicit grammar instruction and tasks. The novelty of this study is the methodology, which combines acceptability judgment tasks and a teaching intervention. This methodology has not been tested together before. It will provide new insight to both linguistics and pedagogics and build a bridge between the two fields

Investigation of acquisition of subject-verb agreement is relevant for language teachers and their classroom instruction. Even though grammar is not explicitly mentioned in the competence aims in the *Knowledge Promotion (Kunnskapsløftet)*, the Norwegian curriculum, grammar is the language itself, and without grammar one cannot learn a language. English teachers in the Norwegian educational system may benefit from the insights this study can provide to our understanding of grammar instruction in L2 English.

This thesis will examine three research questions:

RQ1: Is subject-verb agreement in L2 English teachable for L1 Norwegian learners?

RQ2: Does grammar instruction have an effect on learning subject-verb agreement in L2 English for L1 Norwegian learners?

RQ3: Which of the subject-verb agreement constructions are more difficult to learn for L1 Norwegian learners of L2 English?

To examine these three questions, I collected data using an acceptability judgment task (AJT) conducted twice, before the teaching intervention (pre-test) and immediately after it (post-test). The teaching intervention consists of two sessions, 90 minutes each. The intervention included explicit grammar instruction and different tasks. The AJT tested six different sentence structures, four different structures on subject-verb agreement and two filler constructions:

1. Local agreement with singular subjects
2. Local agreement with plural subjects
3. Long-distance agreement with singular subject
4. Long-distance agreement with plural subjects
5. Non-subject-initial declarative main clauses (filler)
6. Subject-initial declarative main clauses (filler)

The thesis is divided into the following sections: chapter 2 describes the theoretical background, chapter 3 presents the research questions and the predictions, chapter 4 discusses the methodology, chapter 5 presents the results from the experiment, chapter 6 discusses these results linked to the research questions and predictions, chapter 7 presents some pedagogical implications of this study, chapter 8 describes possible study limitations, and finally, chapter 9 will provide a conclusion.

2 Theoretical background¹

The following sections present the theoretical background of this thesis. First, I present subject-verb agreement and the features of the third person singular *-s*. I will address why subject-verb agreement may be problematic for L2 learners in general but also specify why L1 Norwegian learners of English struggle with learning agreement. Section 2.2. will address grammar instruction, both general grammar instruction and specified to the third person singular *-s* suffix. I have also included a subchapter on grammar teaching in the Norwegian educational system. Section 2.3 presents previous studies that relate to this thesis. Three of them have investigated knowledge of subject-verb agreement with acceptability judgment tasks, and two of them are intervention studies.

2.1 Agreement

In the English language, the subject must agree in three features: tense, person and number (Dypedahl, Hasselgård and Løken 2015).

This thesis focuses on subject-verb agreement, and this rule is simple: a singular subject requires a singular verb, and a plural subject requires a plural verb. English marks subject-verb agreement in the third person present, by adding the third person singular suffix *-s* (I will refer to this as 3SG *-s*) (Bock and Miller 1991, Dypedahl et al. 2015). 3SG *-s* only applies for the third person singular, illustrated in (1a). For other persons, the verb is bare, as seen in (1b and 1c).

- | | | | |
|-----|-----------------|--------|---------|
| (1) | a. Kari | speaks | English |
| | b. I | speak | English |
| | c. Kari and Per | speak | English |

However, there are some exceptions to this rule. The verb *be* has three forms in the present tense and two in the past tense, see table 1, and modal auxiliaries do not require 3SG *-s* (Dypedahl et al. 2015).

¹ This chapter is adapted on Nygaard (2018), an unpublished exam I wrote in ENG-3050 Second Language Acquisition the autumn term 2018

Table 1: "To be" conjugated in the present and the past tense

	Present singular	Present plural	Past singular	Past plural
1st person	I am	we are	I was	we were
2nd person	you are	you are	you were	you were
3rd person	he/she/it is	they are	he/she/it was	they were

There are also other cases where subject-verb agreement can be problematic, for instance with uncountable nouns, collective nouns, nouns with plural form and singular meaning, and nouns with singular form and plural meaning.

The 3SG *-s* suffix is the subject-verb agreement marker in English, and this little morpheme contains much information. An example of this information and features are presented in "syntax-before-morphology" in section 2.1.3.

2.1.1 Linguistic characteristics of the 3SG *-s* morpheme

"Morphemes are the smallest individually meaningful elements in the utterances of a language" (Hockett 1958:123). 3SG *-s* is a bound morpheme. A morpheme requires a root as it cannot stand alone. It always appears at the end of the root and is therefore a suffix. The characteristics of the 3SG *-s* morpheme can be investigated by looking into research on morpheme acquisition.

A pioneer in the research of morpheme acquisition in English was Brown. His study from 1973, where he investigated three English-speaking children and their acquisition of morphemes, is still being referred to today. In this study, he found that third person regular and third person irregular are amongst the last morphemes to be acquired, respectively on 10th and 11th place of the 14 morphemes he investigated (Brown 1973). Third person regular is sentences where the verbs get the 3SG *-s* suffix: *He walks to town*. Third person irregular is the cases where the verb is irregular, and the 3SG *-s* suffix does not appear in the usual form, for example with "to be": *He is tall*. The order of morpheme acquisition has been thoroughly researched since then, and today we know that certain factors facilitate or impede language acquisition.

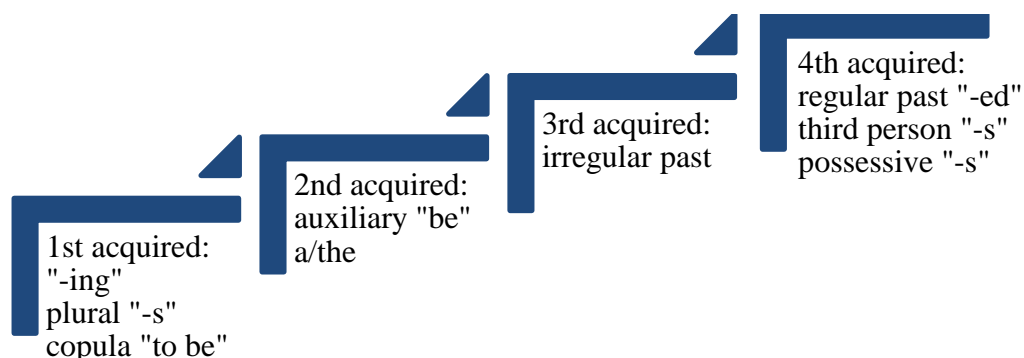
O'Grady (2005:96) suggests the most critical factors affecting morpheme acquisition to be regularity, frequency, phonetic visibility, and semantic transparency. He also contrasts

the -s suffix that marks plurality in nouns and the 3SG -s and suggests that the plural -s is learnt earlier than 3SG -s because it is placed in a more salient position (O'Grady 2005:96). Furthermore, the plural -s is more frequent.

Perceptual salience is also proposed by Goldschneider and DeKeyser (2001) as a possible factor that causes 3SG -s problematic to learn. Perceptual salience is defined as “[...] how easy it is to hear or perceive a given structure” (Goldschneider and DeKeyser 2001:22). Further, Goldschneider and DeKeyser (2001) state that three variables compose salience: how many phones (sounds) it has, whether it is syllabic or not (contains vowels), and how sonorous it is. The suffix -ing is considered more salient than 3SG -s (Jensen et al. 2019).

In the field of second language acquisition, Brown's research has been expanded, and L2 morpheme acquisition patterns have been researched. These show that acquisition of morphemes in L2 English differs from the order in L1 English, but that different L1s learning English as their L2, acquire the morphemes in a similar order. The 3SG -s is in the group of the morphemes acquired at the last stage:

Figure 1: Order of morpheme acquisition of L2 English, based on Hummel (2014:150)



Ellis, N.C. (2002) emphasises input frequency when learning a language. Jensen et al. (2019) investigated the frequency of 3SG -s in the Corpus of Contemporary American English and found that 3SG -s occurs very often. If limited to spoken sources, the 3SG -s occurs 944,638 times (Jensen et al. 2019:7). Further, they argue that 3SG -s occurs with high frequency and that the problems with the acquisition of this morpheme cannot be due to lack of input.

2.1.2 Agreement attraction

Bock and Miller (1991) conducted a series of experiments where they investigated native speakers and their use of agreement in various structures. In their research, they propose the 'broken agreement effect'. Bock (1995) later defines this as agreement attraction, a situation when learners agree the verb to the local noun instead of the head noun. As this is a problem

among native speakers, one can predict that this also will be a problem among L2 speakers. This agreement attraction happens in sentences with long-distance agreement, i.e., where a prepositional phrase is placed between the agreeing elements. In (2b) the verb agrees with the local noun, and the sentence is thus ungrammatical.

- (2) a. The girl with the red shoes likes to jump.
b. *The girl with the red shoes like to jump.

Because of the agreement attraction, one can argue that the learner has acquired subject-verb agreement, but that he or she makes errors due to a processing problem.

2.1.3 Why is subject-verb agreement problematic for L2 learners?

As figure 1 shows, 3SG *-s* is one of the latest morphemes to be acquired. This section will discuss some ideas of why this is. First, I present two hypotheses related to this issue, the Bottleneck Hypothesis (Slabakova 2013) and syntax-before-morphology (White 2003). I continue by discussing teachability and learnability, before moving to the contrastive grammar of subject-verb agreement structures between Norwegian and English.

The Bottleneck Hypothesis

The Bottleneck Hypothesis argues that the bottleneck of L2 acquisition is functional morphemes and their features (Slabakova 2013). Functional morphology is both hard to produce and to comprehend. For instance, the 3SG *-s* suffix contains more grammatical information expressed by several features and syntactic effects, than the plural *-s* suffix. This grammatical information affects the learner's analysis of the whole sentence. Processing studies confirm that both L2 learners and native speakers find functional morphology problematic. As 3SG *-s* carries higher syntactic information it requires a higher cognitive load (Slabakova 2013).

Syntax-before-morphology

White (2003) suggests that there are two ways syntax and morphology are linked together in language acquisition: morphology-before-syntax and syntax-before-morphology. The first suggests that knowledge of morphology drives the acquisition of syntax, and the latter suggests the opposite, knowledge of syntax drives the acquisition of morphology. Syntax-before-morphology is the adopted view in this thesis.

To present how problematic the 3SG *-s* can be, I will use an example from Slabakova (2016) to show how much information a functional category like 3SG *-s* contains. To acquire

the 3SG *-s* one needs to consider surface morphology and grammatical meaning, together with syntactic information that is related to the functional category.

(3) He often takess the bus.

In the tense phrase in example (3), the *-s* suffix provides information on features like [person], [tense] and [aspect]. It is a third person singular in the present tense doing a habitual activity. Besides, it provides syntactic information: it required an obligatory subject, a nominative subject and a verb in a verb phrase. (Slabakova 2016:182-183). The 3SG *-s* suffix carries much information on morphology, semantics, and syntax that must be acquired for the learner to understand and acquire the suffix itself. The underlying information is not learned at the same time, which leads us to the syntax-before-morphology approach by White (2003).

White (2003) argues that learners of L2 English vary in development of inflectional morphology even when they show abstract syntactic knowledge – the syntax is acquired before the morphology. Syntax-before-morphology is supported by the findings in Jensen et al. (2019), where subject-verb agreement is shown to be more problematic than word order (narrow syntax) for L1 Norwegian L2 English learners.

2.1.4 Teachability and learnability

Pienemann (1989) proposed the teachability hypothesis. It predicts that instruction only will be effective in language acquisition if the learner's interlanguage is near the point of acquisition of the language structure in a natural setting. Thus, the instruction is only effective when learning items the learner is ready for. Learners at stage X must first reach stage X+1 before reaching stage X+2. The instruction should be at the next stage for the learner, i.e., if the learner is at stage X, the instruction should be at stage X+1. If the instruction is at X+2, the learner will not be able to process the input. Pienemann (1989) argues that instruction should follow the learners' natural acquisition and that formal classroom instruction cannot alter the natural acquisition order.

Language learnability is a discipline concerned with how languages are learnt (Archibald 2012). Studying the developmental paths, i.e. acquisition order of morphemes (Brown 1973) was the beginning of the learnability field. Learnability tries to explain the progress of a language learner based on the language input (Yip 1995). Learnability may thus be linked to language instruction, which will be discussed in section 2.2.

In this thesis, the term learnability is used to refer to the participants' ability to learn different subject-verb agreement structures after an intervention.

2.1.5 Contrastive grammar: Norwegian and English

A potential contributor to difficulties with learning subject-verb agreement in L2 English for native Norwegian speakers is the mismatch between subject-verb agreement in Norwegian and English. In Norwegian, there is no overt subject-verb agreement morphology.

Norwegian marks the present tense with the suffix *-r* on the verb (Enger and Kristoffersen 2000:83), see (4) where the suffix is underlined.

- (4) Kari snakkerr engelsk
Kari speaks English

As Norwegian has no overt morphology agreement, the verb *snakke* ‘speak’ in (5) will not change its form if we change the subject’s number and person.

- (5) a. Kari og Lise snakkerr engelsk
Kari and Lise speak English
b. Jeg snakkerr engelsk
I speak English

This difference between Norwegian and English may cause learners to experience interference, a negative influence of L1 leading to errors in L2 (Hummel 2014).

In addition to the differences between the grammar of the two languages, factors related to learners’ comprehension of input in English, may be of importance when investigating why subject-verb agreement is problematic for L2 English learners. Learners do not only consider the grammatical number of the subject noun phrase when they work out agreement in a sentence. Other factors include:

[...] semantic information (i.e. conceptual number), morphophonological ambiguity, and the distribution of singular versus plural agreement for an NP (e.g. collective vs. noncollective nouns) in a language” (Jackson, Mormer, and Brehm 2018:908).

Jackson et al. (2018) thus suggest that learners need to gather much information at the same time to process the agreement structure, which connects agreement processing to cognitive mechanisms. Processing agreement is thus a task that requires much attention from the learner, and this gives room for making agreement errors.

2.2 Grammar instruction

The importance of grammar instruction can best be illustrated by Munden and Sandhaug (2017:182). They assert that “How to teach grammar, indeed whether or not to teach it at all, is probably the most basic question of all English teachers”.

Jensen et al. (2019) argue that there are two reasons why instruction is an essential factor in the learning situation. Explicit instruction will likely get the learners attention to the linguistic feature that is taught, and that instruction provides evidence (both positive and negative) for the feature.

The term ‘grammar’ is mentioned in the ‘Purpose’ section of the *Knowledge Promotion (Kunnskapsløftet)*, the Norwegian curriculum for English, but not explicitly mentioned in the competence aims.

In the curriculum for VG1 (programme for general studies) and VG2 (vocational education programme), there is only one competence aim that links specific to grammar: the pupils should “use patterns for [...] word inflexion and various types of sentences” in both oral and written communication (Utdanningsdirektoratet 2013a). Although, as Munden and Sandhaug (2017) explains, grammar is all about the “forms and the use of language [...] and about patterns of use” (182). Even though the curriculum avoids using the term ‘grammar’, the pupils must learn it in order to learn the target language itself.

Garshol (2019) argues that currently there are no systematic research studies investigating grammar teaching in English classes in Norway, and therefore, it is difficult to say how much grammar is taught and what methods teachers use. However, I have used studies on grammar in textbooks for English courses in Norway as a tool to suggest how grammar instruction in the Norwegian educational system may be performed.

2.2.1 Historical view on grammar instruction

The debate on how to teach grammar mirrors the historical approaches that have been used. As Thornbury (1999:14) states: “[...] the history of language teaching is essentially the history of the claims and counterclaims for and against the teaching of grammar”.

Today, grammar instruction is focused around the postmethod perspective, which emphasises that any single method is misleading: the teacher must adapt the various methods to each context and be active when teaching language (Hummel 2014). The road to today’s grammar instruction has been long, and many methods have been used throughout the years. The following paragraphs will present the most common grammar instruction methods used in the Norwegian educational system from the 19th century to today.

One can separate between two forms of grammar instruction; focus on forms and focus on form. The first being a deliberate discussion of grammar without referring to meaning and the latter being discussion of grammar and vocabulary that arises from meaningful discussions in the classroom (Cook 2008). These two concepts can be linked to the various teaching methods throughout history.

For an extended period, the Grammar-Translation Method dominated language teaching. The primary objective was to learn to read and write through translating to and from the target language, while speaking and pronunciation were given little attention (Fenner 2018). The Grammar-Translation Method is an example of focus on forms. At the end of the 19th century, the Direct Method developed as a reaction to the analytic Grammar-Translation Method.

The Direct Method focused on using the language rather than analysing it, and it prioritised oral expression. Learners should avoid their L1 and be taught by a native – or native-like – speaker (Hummel 2014). The Direct Method was influential in Norway in the first decades of the 20th century (Fenner 2018). Both focus on form and focus on forms could apply for this method, as it depends on the teacher. If the teacher uses mechanical drills that needs minimal attention to meaning it is focus on forms. However, if the teacher uses dialogue that requires attention to meaning the focus on form could apply (Doughty and Williams 1998).

The Audiolingual Approach was a common approach leading up to World War II when a need for understanding foreign languages in conflict zones appeared. This approach consisted of repetition and language drills and focused on pronunciation. The method failed to teach real conversation skills, but some parts are still in use today (i.e. in language lab exercises) (Hummel 2014). The use of mechanical drills requires minimal attention of meaning, and thus this approach belongs to focus on forms (Doughty and Williams 1998).

In the Affective-Humanist Approach, one emphasises the emotions of the learner. Language learning happens in a comfortable environment and communication that is meaningful to the learner is highlighted. The support from the peer is considered very important. This method never reached great popularity due to a lack of evidence of success (Hummel 2014).

Total Physical Response was developed in the 1960s, and this method is said to help relieve stress in the learning situation. The teacher gives commands, and the learners are not forced to speak, but to understand the command and respond to it (Asher 1969). The method has been applied in classrooms and is most often used to supplement other approaches.

In the Communicative Approach, communication is the means and the goal of language learning. Classroom teaching is adapted to simulate real-life situations. The method is better for fluency, but less successful for learning grammar (Fenner 2018). Task-based language teaching is learning through outcomes of tasks – how learners can use the language to solve the tasks. The task-based learning style follows a focus on forms approach (Cook 2008).

Today, the postmethod perspective is the ideal method to use in the language classroom. This method is a result of the increased globalisation and cross-cultural changes and forces the instructor to vary their methods and adapt the instruction to the current topic of instruction. The postmethod perspective requires reflection on the instruction and context (Hummel 2014).

2.2.2 Grammar instruction today

The *Knowledge Promotion (LK06)* was published in 2006 and revised in 2013. It is one curriculum for the entire education, from primary school to upper secondary school. The main English subject curriculum (ENG1-03) is based on communicative approaches and is in line with the *Common European Framework of Reference for Languages: Learning, Teaching and Assessment* (2001) (Fenner 2018). The English curriculum emphasises the role of English as a *lingua franca* and the importance of cultural competence. *LK06* does not specify methods and materials for teaching English – thus leading to many variations as the teachers may interpret the competence aims differently (Fenner 2018). The use of numerous variations of instructions conforms with the postmethod perspective on learning, which supports various teaching methods.

The Council of Europe (2001:9-10) emphasises that language, including grammar, is a dynamic *action-oriented* means of communication. Language is used to communicate, and knowledge of grammar is therefore not only knowledge but the ability to use the language for communication.

Munden and Sandhaug (2017) argue that the dominating view among English teachers in Norwegian secondary schools is that systematic presentation and practice of rules is the best way to teach grammar. Often this is because the teachers have learned grammar themselves in this way. However, there is an ongoing debate in the educational system on how best to teach grammar, Munden and Sandhaug (2017) name three of them: explicit grammar teaching, teaching grammar communicatively and teaching grammar by noticing. Newby (2018) suggests that much grammar will be learnt through language usage and

communication and that explicit instruction may complement the natural acquisition process. Cook (2008:38) emphasises that the teacher’s role is to “find the appropriate teaching for *those* students in *that* situation.”

Grammar in English course textbooks in secondary schools

Munden and Sandhaug (2017) have investigated textbooks and made some generalisations about their grammar contents. They found that from Year 8, grammar is seldom mentioned. Instead, the books have sections called ‘Focus on your language’, ‘Improve your language’ and ‘Language lab’. These sections include tasks and activities on grammar and vocabulary and are often connected with a language structure or feature of the text on the previous pages.

Even though many textbooks use a communicative approach and focus on using the language, as *LK06* states, many teachers still favour the tasks with ‘fill the gap’ and ‘choose the right alternative’. In her master’s thesis, Askeland (2013) conducted a study on grammar tasks in three English textbooks used in Norwegian schools. She found that “[t]here is a considerable number of gap-filling tasks in the textbooks” (Askeland 2013:76). Munden and Sandhaug (2017) argue that the usage of tasks like ‘fill the gap’ and ‘choose the right alternative’ is a result of teachers’ wish to stay inside of their comfort zone, where they present the rules and the pupils are required to practise them. Besides, these tasks require little work when assessing. Most teachers have a busy schedule, and time and workload in assessing tasks can be considered as a critical component when choosing tasks for the pupils to do.

In their study, Jensen et al. (2019) investigated subject-verb agreement in textbooks in Norwegian schools. They found that subject-verb agreement is mentioned at a various degree in the textbooks and conclude that subject-verb agreement is subject to instruction in the Norwegian school system, see table 2.

Table 2: Representation of subject-verb agreement in English textbooks, from Jensen et al. (2019:26)

Material	Grade	Exercises	Sections/Articles
Røkaas et al.	12 th	17	3
Rugset and Ulven	11 th	0	1
NDLA	11-13 th	10	10
Solberg and Unnerud	7 th	2	1

Teaching 3SG -s

Scrivener (2003:2) lists four tasks that learners need to do when learning a new grammar item: notice the item when it is being used, understand the form of the item, try to practise it in a safe environment and use the new language in speaking and writing. These conform with the learning stages Newby (2018) describes as necessary to acquire a grammatical item: awareness, internalisation, proceduralisation, and performance.

Sections 2.2.1 and 2.2.2 explain that there have been several views on grammar instruction. Newby (2018) argues that today, many think that the acquisition process can be enhanced by the appropriate pedagogy – or pedagogical grammar as he calls it. Further, Newby (2018) argues that pedagogical grammar is a set of tools: it is descriptions and explanations of grammar, but also teaching materials and exercises. The theoretical perspectives that support pedagogical grammar is a communicative + cognitive approach (Newby 2018). Meaning, the learner's cognitive resources should be activated, and that the grammar taught should be applicable in real life situation (communicative).

Newby (2018) also presents five pedagogical principles that are central for pedagogical grammar:

1. repetition (the learner needs contact with the target language),
2. depth of processing (i.e. how well is the grammar stored in the learner's memory),
3. commitment filter (i.e. the learner must be committed to the learning),
4. peer/social learning (the learners must be allowed to learn together), and
5. summative vs formative exercises (i.e. tasks should vary between testing for testing's sake and testing for learning's sake).

Thornbury (1999) specifies that learners have a limited capacity for attention and that focusing on form and meaning at the same time is challenging. Therefore, practice activities should focus on a familiar topic to ensure accuracy of the target grammatical form. In addition to attention to form and familiarity, Thornbury (1999) also includes thinking time and feedback as crucial elements of an accuracy task.

As stated in section 2.1.5, 3SG -s is not a feature in the Norwegian language. The analysis of grammatical differences between two languages is called contrastive grammar. In the cases of contrastive grammar, one might expect where learners will have difficulty acquiring the target language. Thus, the feature of 3SG -s might require special attention for L1 Norwegian learners of English. When teaching L2 grammar, negative evidence might be a useful tool to point out the contrastive grammar. In the present study, negative evidence was used in the intervention.

Negative evidence is examples and information on ungrammaticality in a language (White 1991). White et al. (1991) proposes that negative evidence may be more critical in L2 acquisition as L2 learners may make incorrect generalisations based on input from their L1 and that these errors may not be corrected by positive evidence alone. Further, they suggest that instruction that includes focus on form and error correction will provide learners with an emphasis on the possibilities in the L2 together with explicit instructions of what is not possible. L2 learners may benefit from negative evidence, as these will point out the differences from their interlanguage and the target language (Garshol 2019).

In her study, White (1991) investigated the role of positive and negative evidence with L1 French learners of L2 English. She found that negative evidence was more effective than positive evidence when learning word order in L2 English; positive evidence alone was insufficient.

As shown in sections 2.2.1 and 2.2.2, there are many methods and various types of instructions one can use to teach language and grammar. I want to define and present some of the approaches that are used in the present study: explicit and implicit knowledge, deductive and inductive approaches, and explicit and implicit instruction

Explicit knowledge “[...] is conscious knowledge of grammatical rules learned through formal classroom instruction” (Widodo 2006:125). Explicit knowledge is a state where the learner knows a rule for a grammatical phenomenon and can easily apply the rule when (s)he has time to think about it and how to use it correctly. Implicit knowledge is the knowledge that the learner has internalised and can easily access it in spontaneous situations (Brown 2000).

The deductive approach is also called rule-driven learning. The deductive approach is used when one first presents the rule for the learner, and then move on to applying the rule in language production (Widodo 2006). The deductive approach is often presented as the PPP (Presentation-Practice-Production) approach (Jean and Simard 2013). Jean and Simard (2013:1024) present three variations of the deductive approach: First, a presentation of a language rule followed by practice through drill-type exercises. Second, a written or spoken text where the target feature is presented through frequency (input flood) or highlighted (enhancement). Then follows a presentation of the rule, which is practices through various exercises that focus on meaning and communicative skills. The third variation is in the middle of the two. The rule is presented and followed by working with authentic texts where the target feature is featured. The deductive approach is a teacher-centred approach as the teacher presents and explains the rule. With this approach, learners are in control and may have less

fear of making errors when producing the targeted feature (Widodo 2006).

The opposite is the inductive approach, called rule-discovery learning, where learners discover the rule from data or an activity (Newby 2018). The inductive method is used when learners are introduced to examples and encouraged to analyse these in order to formulate their own rules. (Thornbury 1999:49). The teacher presents written or spoken examples including the target feature. There is a broad spectrum of variations of the inductive approach as well. For instance, the teacher may ask guided questions that lead the learners to discover the rule, followed by a discussion of the rule. Alternatively, the teacher can present a text where the learners work to discover the rule, but the rule is never stated in the setting (Jean and Simard 2013). With the inductive approach, the learners must actively participate in their language learning. This way, the learners are encouraged to develop autonomy in the classroom. The approach gives a room for collaboration between the learners, and thus it encourages cooperation and teamwork. However, it can be a time-consuming activity, and one can risk that the learners get the wrong concepts of the target feature (Widodo 2006).

Explicit instruction falls under the deductive approach, as it teaches grammar explicitly to the learners. Macaro and Masterman (2006:298) define it as:

Establishing as the prime objective of a lesson (or part of a lesson) the explanation of how a morphosyntactic rule or pattern works, with some reference to metalinguistic terminology, and providing examples of this rule in a linguistic, though not necessarily a functional, context.

Thus, explicit instruction is a teaching method where the teacher explains a grammatical phenomenon, its rules, and gives examples of this structure. Two varieties of explicit instruction are consciousness-raising (Ellis, R. 2002) and input enhancement (Sharwood Smith and Truscott 2014). Both these approaches focus on giving explicit information about the targeted feature to the learner, by providing data and examples and tailor the input to the learners, i.e. isolate the feature and make it more salient for the learner.

Consciousness-raising is an attempt to give the learner an understanding of a target feature. Ellis, R. (2002) emphasises that a consciousness-raising activity must isolate the target feature for focused attention and that the learners must be provided with data that illustrates the target feature. Besides, they can be presented with an explicit rule that describes and explains the feature. Consciousness-raising does not involve repeated production, as the goal is to give the learner knowledge of a feature, not force the learner to produce the feature correctly (Ellis, R. 2002). Practice cannot take place without consciousness-raising, but consciousness-raising can take place without practice. Because of the lack of practice,

consciousness-raising is considered a more theoretical approach. We know that learners learn languages in various ways, and learners who learn best through practice would not benefit as much through this method. The method is a supplement to communication activities.

Input is “potentially processible language data which are made available, by chance or by design, to the language learner” (Sharwood Smith 1993:167), while intake refers to the long-term effects of the processed input (Sharwood Smith and Truscott 2014). Input does not equal intake, as we do not know what the learners process. Input enhancement is tailored input, designed to make the target feature more visible or salient (Sharwood Smith and Truscott 2014). Input enhancement is linked to the learner’s processing of the input. Input enhancement must be connected to memory and activation. When manipulating the learners’ linguistic environment, one must work with that is going on inside the learners’ minds (Sharwood Smith and Truscott 2014).

The difference between consciousness-raising and input enhancement is how they look at input and intake. Consciousness-raising implies that the learner’s mind is altered by the input, meaning that all input is intake. Input enhancement implies that one can manipulate aspects of the input, but one does not know what parts of the input that is processed (Sharwood Smith 1993).

Implicit instruction is rule-learning when the learner focuses on meaning instead of having an awareness of the grammatical rule (Ellis et al. 2009). Ideally, the learner should internalise the rule without explicitly focus on the rule. Research reports that in the case of L2 grammar instruction, explicit instruction has a better effect than implicit instruction. (Norris and Ortega 2000; Ellis, N.C. 2002; Spada and Tomito 2010).

2.3 Previous research on the acquisition and teaching of

3SG -s

This section will present previous research that relates to the present study. Three of the studies, Jensen (2016), Jensen (2017), and Jensen et al. (2019), have conducted acceptability judgment tasks to investigate Norwegian learners of L2 English and their acquisition of subject-verb agreement. Hirakawa, Shibuya, and Endo (2018) conducted two intervention studies to find the most efficient instruction method to teach grammar. Garshol (2019) investigated subject-verb agreement in her doctoral dissertation. The dissertation is divided into two parts. The first part looks at subject-verb agreement structures in written texts by Norwegian learners of L2 English. The second part presents an intervention with the intention of decreasing subject-verb agreement errors in the written production of L2 English.

2.3.1 Jensen (2016)

Jensen investigated Norwegian L1 speakers and their knowledge of syntax and morphology in L2 English. The morphological construction in her study was subject-verb agreement. She tested 60 students in two age groups, 11 to 12 years old and 15 to 19 years old. The participants conducted both a proficiency test and an acceptability judgment task. Jensen's test had four different sentence structures with subject-verb agreement:

Table 3: Subject-verb agreement structures tested by Jensen (2016:7)

Sentence	Constructions
The girl drinks wine	3 rd person sg, local agreement
The girls drink wine	3 rd person pl, local agreement
The girl with the heavy books drinks coffee	3 rd person sg, long-distance agreement
The girls in the red car drink coffee	3 rd person pl, long-distance agreement

Jensen (2016) provides evidence of both omission and overuse of the 3SG -s suffix, which is a unique pattern so far only seen in Scandinavian languages only (see section 2.3.5).

Her study found a positive correlation between participants' proficiency and their performance in the AJT – the better proficiency, the better results on the AJT. For the two lower proficiency groups, the results indicate that all variants of subject-verb agreement are problematic. For the higher intermediate group, the tendency is that in three of the four tested subject-verb agreement constructions (local agreement with both singular and plural subjects and long-distance agreement with singular subjects), most participants reject the ungrammatical sentences and accept the grammatical sentences. For long-distance sentences with plural subjects, sentences are generally accepted regardless of their grammaticality (Jensen 2016:94). In the advanced group, the results have improved, but they still accept some ungrammatical sentences with long-distance agreement with plural subjects. The results are similar for long-distance agreement with singular subjects and local agreement with plural subjects, as grammatical sentences are mostly judged correct, and about half of the ungrammatical sentences are rejected. For both local and long-distance agreement, overgeneralisation is the most frequent error type, i.e. the learners' correct grammatical sentences into ungrammatical sentences.

2.3.2 Jensen (2017)

Like Jensen (2016), Jensen (2017) investigated Norwegian L1 speakers and their knowledge of syntax and morphology in L2 English, with the morphological construction being subject-verb agreement. The participants in Jensen (2017) were 4th graders (9 and 10 years old) and 8th graders (12 and 13 years old), with fifteen participants in each group. The participants took a proficiency test and an acceptability judgment task. The AJT consisted of several sentence-constructions, subject-verb agreement being one of these. The only subject-verb agreement construction Jensen (2017) tested was local agreement with singular subjects. There were five sentence pairs with subject-verb agreement construction.

Table 4: Subject-verb agreement structure tested in Jensen (2017:2)

The teacher talks about mathematics and numbers	Grammatical version
*The teacher talk about mathematics and numbers	Ungrammatical version

Jensen (2017) found that subject-verb agreement was more difficult to acquire than the other constructions tested (past *-ed* and non-subject initial clauses and subject-initial clauses). Furthermore, the findings support those of Jensen (2016), that Norwegian learners omit the 3SG *-s* suffix and that learners struggle to recognise the missing 3SG *-s* suffix in ungrammatical sentences.

2.3.3 Jensen et al. (2019)

Jensen et al. (2019) conducted a study where they examine the Bottleneck Hypothesis in L2 English of Norwegian native speakers. They investigated two constructions, subject-verb agreement (functional morphology) and verb-second (V2) word order (syntax). They tested four constructions of subject-verb agreement: local agreement with singular and plural subjects, and long-distance agreement with singular and plural subjects. The study was conducted using an acceptability judgment task and two participant groups, 11 and 12 year olds and 15 to 18 year olds.

Jensen et al. (2019) found that unlearning the V2 order may be less problematic than learning subject-verb agreement in L2 English, which supports the findings in both Jensen (2016) and Jensen (2017). They, therefore, propose that functional morphology is more problematic than core syntax. Besides, they found that subject-verb agreement is a more persistent problem than verb movement when learning L2 English.

Their findings suggest that local agreement with singular subjects is the easiest

construction to learn. Then follows long-distance agreement with singular subjects and local agreement with plural subjects, which develops similarly. The most problematic construction to learn is long-distance agreement with plural subjects.

The difficulties Norwegian learners have with the plural constructions lead Jensen et al. (2019) to suggest that learners prefer the 3SG *-s* suffix to be present in sentences. In light of this, they argue for overgeneralisation as the main reason for subject-verb agreement errors in Norwegian learners.

2.3.4 Hirakawa, Shibuya, and Endo (2018)

Hirakawa, Shibuya, and Endo (2018) conducted two studies with Japanese learners of English to investigate what kind of input and instruction would be more effective in acquiring adjective ordering. The participants were divided into groups who received different kinds of input: explicit instruction, input flood, and natural exposure through a study-abroad program in North America.

Study I tested two interventions with explicit instruction (EI) and natural exposure (NE). Participants conducted a preference task three times (pre-test, post-test and delayed post-test). Between the pre-test and the post-tests, the EI group received three hours of explicit instruction over three weeks, and the NE group participated in a study-abroad program for five weeks in the USA. The results for study I showed that the EI group improved significantly from the pre-test to the post-tests, while the NE group did not improve much.

Study II tested two interventions with input flood (IF) and natural exposure (NE). The procedure was the same as in study I, with a preference task answered twice as a pre-test and post-test. Neither the IF group or the NE group managed to improve as much as the EI group in study I did.

The results show that the EI group performed target-like at the post-test. For the IF and NE groups, there was no significant change in knowledge of adjective order.

2.3.5 Garshol (2019)

In her doctoral dissertation, Garshol (2019) investigates subject-verb agreement errors in English texts produced by L1 Norwegians. The dissertation consists of two parts. Part one explores a corpus of English texts produced by Norwegian learners in upper secondary school. Part two describes a didactic intervention, where the Inverted Classroom Method is used to raise metalinguistic knowledge and improve the accuracy of subject-verb agreement.

Her pilot project found that the errors L1 Norwegian learners produce are not typical of L2 English. Usually, L2 English learners underuse the 3SG *-s* suffix, while Norwegian learners tend to overuse it. Part one of her dissertation aims to investigate if the error patterns found in Norwegian L2 production are the same as with learners from other L1 backgrounds.

The corpus investigation found that overgeneralisation errors (overuse of the 3SG *-s* suffix) were more common in Norwegian learners than in learners with other L1s; however, similar patterns were found among L1 Swedish learners. As Norwegian and Swedish are both Scandinavian languages and neither mark subject-verb agreement overtly, Garshol (2019) argues that it is plausible that the error patterns of overuse are produced due to L1 influence. Also, Garshol (2019) found that Norwegian learners both omit the *-s* suffix and produce it incorrectly (overuse) it. Her findings are supported by the results in Jensen (2016) and Jensen et al. (2017).

Furthermore, she found that the production of subject-verb agreement errors was stable, even with learners at an advanced stage of L2 English. Learners who attempted to use more complex structures produced more errors due to the long distance between the subject and the verb than learners using less complex language.

Part two of the dissertation focuses on the didactic intervention. Garshol (2019) developed a 12-step module course as part of an Inverted Classroom Methodology. The intervention aimed to see if explicit instruction would decrease the subject-verb agreement errors in texts produced by Norwegian learners. The frequencies of subject-verb agreement errors were assessed three times during the school year.

Garshol (2019) found no significant differences between the scores at the three measurement points when the test-group is considered as one population. The lack of any significant differences is considered an effect of the participants' lack of usage of the instruction material. Less than one-third of the participants used the instruction material as intended.

3 Research questions and predictions

In the following chapter, I will describe the research questions and predictions for the current study. In section 3.1, I present the research questions that the current study is based on. In section 3.2, I describe the predictions based on the research questions.

3.1 Research questions

The following research questions are examined in this study:

RQ1: Is subject-verb agreement in L2 English teachable for L1 Norwegian learners?

RQ2: Does grammar instruction have an effect on learning subject-verb agreement in L2 English for L1 Norwegian learners?

RQ3: Which of the subject-verb agreement constructions are more difficult to learn for L1 Norwegian learners of L2 English?

Research question 1 is raised by using a linguistic approach, which suggests that to raise awareness about the clause structure and the role of functional morphology should be effective in L2 English instruction. Some grammatical features have been investigated using intervention studies with different L1s (Lopez 2017; Umeda et al. 2017; Hirakawa, Shibuya, and Endo 2018), but this is the first study to investigate teachability and learnability of subject-verb agreement with L1 Norwegian L2 English learners.

RQ2 relates to RQ1 but focuses on any effect the instruction may have on the learners' knowledge of subject-verb agreement.

RQ3 is raised to investigate if there is a difference in the difficulty of the four subject-verb agreement structures: local agreement and long-distance agreement with singular and plural subjects and whether instruction has the same effect on learning the four constructions. Some researchers have explored parts of this issue before me (Jensen 2016, Jensen 2017, and Jensen et al. 2019); however, they were only interested in the acquisition component, while the focus in the present study is acquisition as well as learning as a result of grammar instruction.

3.2 Predictions

Morpheme acquisition studies in the SLA field suggest that subject-verb agreement is problematic for learners (O'Grady 2005, Hummel 2014). I expect the participants in this study to follow the acquisition pattern; thus subject-verb agreement will be problematic for

these learners. The participants in both the test-group and the control-group come from the same background – the Norwegian school system, i.e. I can expect them to have much of the same knowledge of English grammar. This leads me to the first prediction:

Prediction 1: Subject-verb agreement will be problematic for both the test-group and the control-group in the pre-test.

The second prediction is based on previous research. The first argument is that subject-verb agreement is more challenging when the distance between the subject and verb increases (Ocampo 2013; Jensen 2016), and the second argument is the agreement attraction, i.e. when a local noun is an intervening element in the sentence (Bock and Miller 1991). Based on this previous research, I expect to find more errors in sentence judgements with long-distance agreement.

Prediction 2: Local subject-verb agreement will be less problematic than long-distance agreement for both the test-group and the control-group in the pre-test.

In her master's thesis, Jensen (2016) also found that singular constructions were less problematic than plural constructions in both local agreement and long-distance agreement. I propose the same prediction:

Prediction 3: Singular constructions in subject-verb agreement are less problematic than plural constructions for both the test-group and the control-group in the pre-test.

There seems to be a consensus in the SLA literature that instruction is beneficial for L2 learning (Spada and Tomito 2010; Ahmadi and Housen 2009; Ellis 2001; Norris and Ortega 2000). However, Spada and Tomito (2010) argue that there still is much to learn about how instruction affects language knowledge, for example, what knowledge the instruction affects and if instruction works on all kinds of language features.

Norris and Ortega (2000) investigated the effectiveness of L2 instruction and found that explicit instruction has a better effect than implicit instruction when it comes to teaching L2 grammar. Spada and Tomito (2010) also conducted a meta-analysis on the effect of L2 English grammar instruction, and their results also indicate that explicit instruction is more

effective than implicit instruction.

Based on this, I propose the following prediction:

Prediction 4: The test-group who will receive explicit grammar teaching and error correction, will perform better than the control-group in all subject-verb agreement constructions in the post-test.

In her thesis, Jensen (2016) investigated the relationship between proficiency and the number of correct judgements in an acceptability judgement task (AJT). She found that pupils in the two lowest proficiency groups had no statistically significant difference in the way the grammatical and ungrammatical sentences were judged, i.e. both ungrammatical and grammatical sentences were judged as acceptable.

The hypothesis that lower proficiency equals more errors in the AJT also applies in this study. The pupils with lower proficiency would thus have little or no knowledge of the subject-verb agreement rule, and two sessions of explicit instruction and working with tasks should help pupils to learn the rule and improve their results in the post-test. Furthermore, the pupils with low proficiency score will have more room for learning in general, as they are expected to be less advanced learners.

This leads me to the fifth prediction:

Prediction 5: The instruction will have a better effect on the pupils with lower proficiency score compared to the pupils with a higher proficiency score.

4 Methodology

The methodology in the current study is inspired by Jensen's (2016) and Jensen's (2017) studies on the Bottleneck Hypothesis, which included investigations of acquisition of subject-verb agreement. I adopted the linguistic tests from Jensen (2016) and Jensen (2017), however, the present study is a different type of study as it includes a teaching intervention and will also revolve around the pedagogical implications of language acquisition.

Section 4.1 presents the participants in the present study. Section 4.2 presents the two tests. Section 4.3 discusses the intervention and didactic choices.

4.1 Participants

A school class with 30 boys and two girls participated in this study. All participants were 16 years old and in their first year of vocational education at an upper secondary school in Norway. They were divided into two groups, a test-group ($n = 16$) and a control group ($n = 16$). The test group received two 90-minute sessions of instruction on subject-verb agreement over a one-week period, while the control-group did not receive any grammar instruction. All participants had Norwegian as their L1. As all participants were native Norwegians, all information regarding the experiment and data collection was given in Norwegian to avoid any misunderstandings.

In the Norwegian educational system, English instruction starts when the pupils are six years old. The school system is divided into three parts in the primary and lower secondary school, and the amount of expected instruction in English varies in these three parts. Pupils in the 1st to 4th grade is expected to receive 138 hours of instruction. In the 5th to 7th grade, the amount of instruction increases to 228 hours. In lower secondary school, 8th to 10th grade, pupils receive 222 hours of English instruction. These numbers add up to 588 hours of L2 English instruction Norwegian pupils are expected to receive before starting upper secondary school at age 16 (Utdanningsdirektoratet 2013b).

The participants were recruited through their school. I contacted the school by e-mail and telephone, giving information about the project. It was the school that selected the class that participated in the experiment, and the tests were taken during school hours.

As all participants were over 15 years old, they could agree to participate themselves, since no sensitive information was collected in this experiment (NSD: Norsk senter for forskningsdata 2018). The participants were given this information orally before the test.

Table 5: Information regarding the participants in the present study

	Test-group (<i>n</i> = 16)	Control-group (<i>n</i> = 16)
Mean age	16	16
L1	Norwegian	Norwegian
Age of acquisition	6	6
Length of exposure (in years)	10	10

Pilot study

A pilot study was conducted to see if subject-verb agreement indeed was problematic for learners in this age-group. A group of seven pupils conducted the pilot study. These seven pupils attended English classes in the 11th grade, their first year at an upper secondary school. All pupils had Norwegian as their L1. The pilot study confirmed that subject-verb agreement was problematic for learners with L1 Norwegian in this age group.

4.2 Tests

In this section, I will present the tests conducted in the present study. The tests were conducted during school hours. The pupils used approximately 45 minutes on the proficiency test and the first AJT test and 20 minutes on the second AJT test. There was a two-week gap between the pre-test and the post-test.

Section 4.2.1 describes the Oxford proficiency test, and section 4.2.2 presents the acceptability judgement task. The sentences used in the acceptability judgement task are presented in section 4.2.3.

4.2.1 Oxford proficiency test

The proficiency test is a subset of a Standardised Oxford Proficiency test with 40 questions (see Appendix 1). This test has been used in previous language acquisition studies, among them Jensen (2016). As illustrated in examples (6) and (7), the test is a multiple-choice task, i.e. sentences with a blank spot and three options to choose from. The participant is asked to choose the word that makes the sentence acceptable, and each correct answer gives one point. Only one word can be used, and all blanks need to be filled out. The test has two parts, and in the second part, the sentences form a continuous story.

(6) Example: Multiple choice with individual sentences

1) Water _____ at a temperature of 100° C.		
is to boil	is boiling	boils
2) In some countries _____ very hot all the time.		
there is	is	it is

(7) Example: Multiple choice with a continuous story

21) The history of _____ is		
airplane	the airplane	an airplane
22) _____ short one. For many centuries men		
quite a	a quite	quite

After I had executed the test and looked at the results, I found an error in the Oxford proficiency test, see (8).

(8) Error in the Oxford proficiency test

26) the beginning of _____ century that anybody		
last	next	that

In question 26 there is a missing article in front of two of the words. The correct sentence would be [...] *the beginning of the next century that anybody* [...] Due to the lack of 'the', I have chosen to exclude question 26 from the results, i.e. the highest score possible is 39 instead of 40.

Pilot study

The proficiency test was also conducted in the pilot study. I chose to include it to ensure that the vocabulary was understandable for learners in the target group. None of the seven test-subjects reported any difficulties with the proficiency test.

4.2.2 The acceptability judgement task

The data was gathered by a timed acceptability judgement task (AJT). The task was conducted twice, before the teaching intervention (pre-test) and immediately after it (post-test). The AJT is a quantitative research method and makes it possible to systematically examine how the participants judge sentences. With a quantitative method, one collects

numeric data and use statistical analysis to find common aspects or patterns in the observations (Johnson 2008).

The terms *acceptability judgement tasks* and *grammaticality judgement tasks* are both used for this kind of test, but acceptability and grammaticality are not the same (Ionin and Zyzik 2014). Grammaticality is whether the sentence follows the rules of grammar in a language, whereas acceptability is whether a native speaker will judge it as acceptable. Grammaticality is one factor that contributes to acceptability (Chomsky 1965:11; Dabrowska 2010:4). To illustrate, example (9) shows a sentence that is grammatical according to Standard English, but it may be considered unacceptable due to its semantics. Example (10) shows a sentence that does not follow the rules of Standard English, but it may be accepted as an answer to the question “What did you do last night?”. The examples are borrowed from Chomsky (1965:11) and Dabrowska (2010:4).

- (9) The man who the boy who the students recognized pointed out is a friend of mine
- (10) Watched some TV, then went to bed

Following Chomsky and Dabrowska, I choose to use the term *acceptability judgement task* in this thesis.

Ionin and Zyzik (2014:38) define AJT as a task where participants judge sentences based on their acceptance of the grammaticality – does it look acceptable or not. Sentences should be presented in isolation without any preceding context, i.e. none of the sentences should belong to the same context. Further, they argue that the sentences should be presented one sentence at a time. The layout in the AJT in the present study is according to these guidelines. The AJT was presented in a timed PowerPoint presentation, with 20 seconds for each sentence. Also, the PowerPoint presentation included sound files, i.e. all sentences were read by a Native American English speaker, to ensure both visual and auditory presentation.

Where Jensen (2016), Jensen (2017), and Jensen et al. (2019) used a Likert scale with four options, the present study used a binary scale. The participants were asked to judge each sentence as correct or wrong (see the scoring sheets provided in Appendix 2 and 3). I chose the binary scale because I wanted to investigate if teaching could improve the participants’ knowledge, and I found it more appropriate with a binary scale of *correct* and *incorrect* instead of a scale with four options. The data was collected on paper due to strict rules on how to manage electronic data.

The pre-test and the post-test consisted of the same sentences, but their order was re-arranged in the post-test.

Pilot study

In the pilot study, I tested the format and content of the AJT. The sentences had previously been used by Jensen (2016) and Jensen (2017), but I still wanted to check the content for difficult vocabulary. Besides, it was essential to test the format of the PowerPoint presentation. All aspects, from font-type and -size, colours in the layout, and the time for each sentence was tested. None of the seven subjects reported difficulty with the vocabulary of the sentences. Based on the pilot study, I decided to set the time for each slide at 20 seconds, to be sure that all pupils had enough time to judge the sentence. Based on comments from the seven participants I changed the order of the sentences, as they reported that the order of correct and incorrect answers was uneven and that this made them question their answers. I, therefore, pseudo-randomised the sentences to create a better balance between correct and incorrect sentence to avoid this problem in the main study.

4.2.3 The sentences in the acceptability judgment task

The AJT task consists of a total of 48 sentences, including 16 fillers (see Appendix 5). They are all sentence pairs where the same sentence is presented in a grammatical and an ungrammatical version. The sentences are divided into six constructions:

- (11) a. Local agreement with singular subjects
- b. Local agreement with plural subjects
- c. Long-distance agreement with singular subjects
- d. Long-distance agreement with plural subjects
- e. Non-subject-initial declarative main clauses (filler)
- f. Subject-initial declarative main clauses (filler)

The fillers are added to create variety in the test, and thus draw the participants' attention away from focusing on the constructions they are being tested in. All constructions are made up of four sentence pairs. Thus, the participants must judge eight sentences on the same grammatical construction, with four grammatical and four ungrammatical variants.

The sentences used in this experiment are a mix of the sentences used by Jensen (2016) and Jensen (2017) in their experiments. From Jensen (2016) I borrowed sentences with local agreement with plural subjects and long-distance agreement with both singular and

plural subjects. From Jensen (2017) I borrowed sentences with local agreement with singular subjects and the two filler constructions, non-subject- and subject-initial declarative main clauses.

As I have borrowed sentences from previous experiments, their judgements on choosing sentences also apply in my experiment. All sentences have some mutual features that Jensen (2016) and Jensen (2017) agree on, and these follow Dabrowska (2010:5), who states that researchers must be aware of extragrammatical factors such as length, lexical content and plausibility and that these factors may influence the participants, and Dabrowska recommend that these factors should be neutralised whenever possible. Thus, all sentences consist of 10-12 syllables, in order to maintain approximately the same length. Secondly, all sentences include familiar vocabulary as the words are taken from a word frequency list (Jensen 2016; Jensen 2017).

Table 6: Example of sentence pairs in the different constructions

Constructions	Example of sentence pairs
Local agreement, singular subjects	Lisa likes to read books about horses
	*Lisa like to read books about horses
Local agreement, plural subjects	The kids like to play in the park every weekend
	*The kids likes to play in the park every weekend
Long-distance agreement, singular subjects	The house with yellow and white doors looks nice
	*The house with yellow and white door look nice
Long-distance agreement, plural subjects	The boys in the black car look very scary
	*The boys in the black car looks very scary
Non-subject-initial declarative main clauses (fillers)	Last night the girl opened a present from her dad
	*Last night opened the girl a present from her dad
Subject-initial declarative main clauses (fillers)	The girl always played soccer with her brother
	*The girl played always soccer with her brother

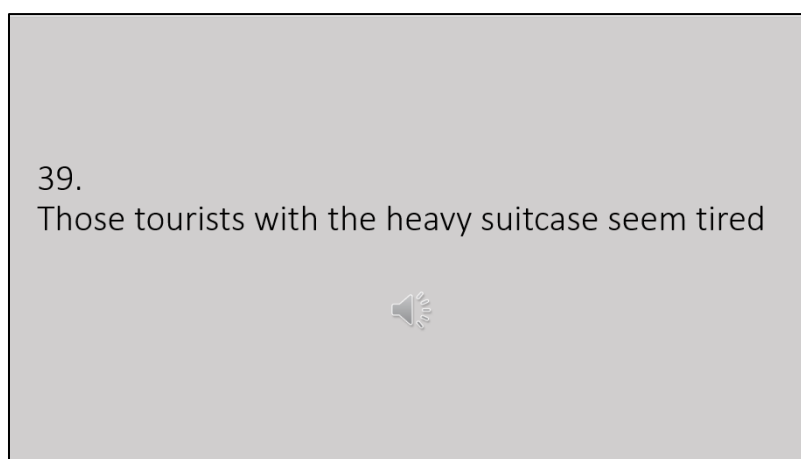
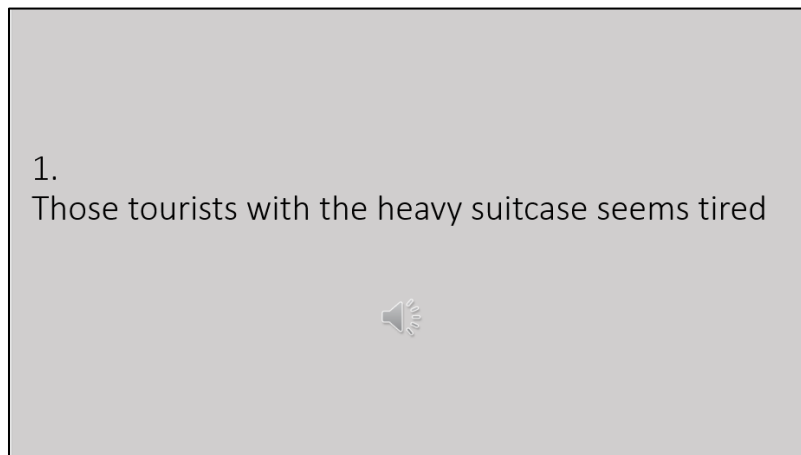
The sentences testing subject-verb agreement will all receive the suffix *-s* in the third person singular. All sentences have different verbs, meaning there will be four different verbs in each construction. Besides, the subjects all are regular nouns and will receive the plural suffix

-s. For the sentences with long-distance agreement, the local nouns and the head nouns have opposite number (see Appendix 5 for all the sentences). The difference in number is essential in order to find out if the participant has judged the sentence based on the head (subject) noun or the local noun (see Jensen 2016).

The fillers in this experiment also come in sentence pairs. This was to ensure the same amount of correct and incorrect sentences. I wanted it to be a balanced relationship between the amount of acceptable and unacceptable sentences, to avoid any influence an asymmetrical relationship may have on the participants.

Below are two screenshots of the PowerPoint presentation in the pre-test, which illustrate how the sentences were presented to the participants. Figure 2 illustrates a sentence pair, where sentence 39 should be judged as acceptable and sentence 1 as unacceptable.

Figure 2: Screenshots from the AJT Power-Point

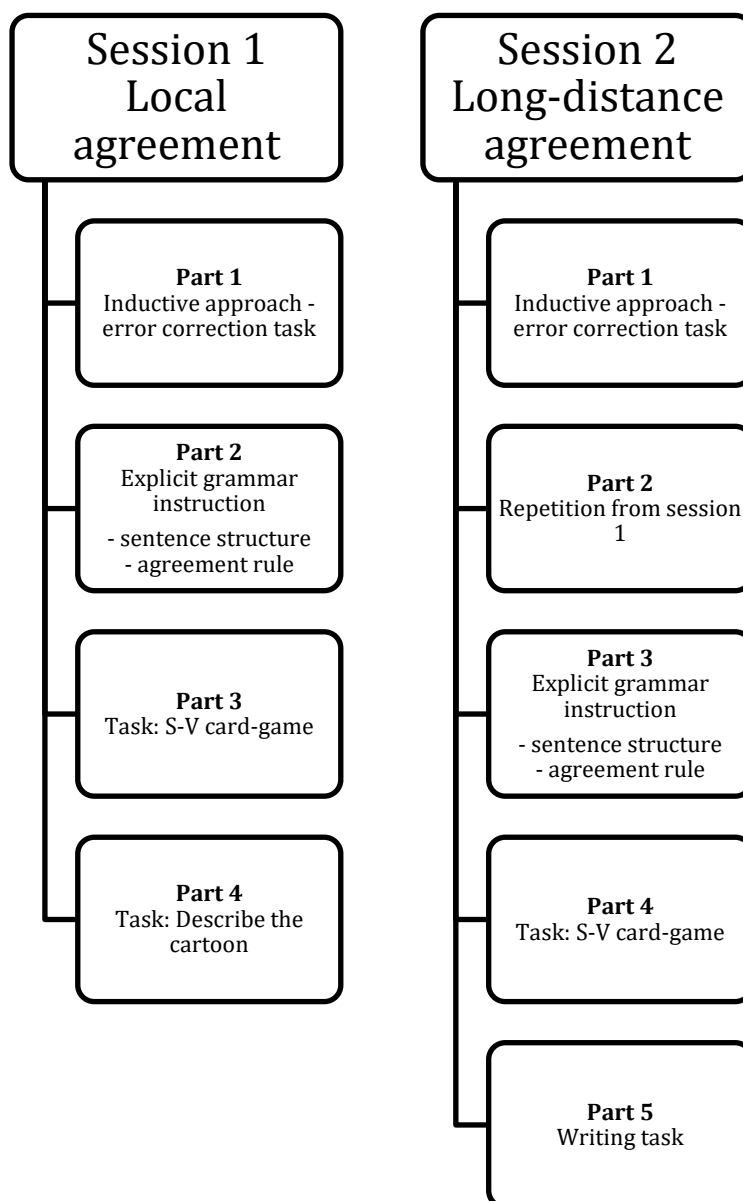


4.3 Intervention

This section presents the intervention techniques. The intervention consists of two sessions, 90 minutes each. Session 1 focuses on local agreement while session 2 focuses on long-distance agreement. Figure 3 gives an overview of the layout of the intervention. Each part will be presented separately. Section 4.3.1 presents session 1, and section 4.3.2 presents session 2.

The activities and tasks in the intervention were planned according to Thornbury (1999) and Newby (2018) and their principles for teaching grammar.

Figure 3: Layout of the intervention



4.3.1 Session 1: Local agreement

In this section, I will describe session 1 of the intervention and the different elements of instruction and tasks that the session included. In section 5.3.1 I present a teacher's log, explaining how the methods worked in the classroom.

Part 1: Inductive approach, error correction task

Part 1 of the session was an error correction task using an inductive approach. In this case, the pupils received a sheet with five subject-verb agreement errors they had made in the pre-test (i.e. incorrect sentences judged as grammatical and correct sentences judged as ungrammatical) and were asked to correct the sentences if they included any errors. After they had corrected the sentences, the pupils were asked to explain what they corrected and why these were errors, to let them create their own rules. Only sentences with local agreement were presented on the sheet. In this task, the pupils were presented with both positive and negative evidence, as is suggested by White (1991) and White et al. (1991) to be more effective.

Part 2: Explicit grammar instruction: presentation, practice, production

Part 2 of the session was a deductive approach, with explicit rule grammar instruction on sentence structure and subject-verb agreement. When presenting the sentence structure, I used the terms subject (S), verbal (V), and object (O). I used a PowerPoint presentation to present the sentence elements and knowledge on how to identify the elements. I also showed them the elements highlighted in sentences. This was done inspired by Ellis, R.'s (2002) consciousness-raising and Sharwood Smith and Truscott's (2014) input enhancement. The target feature was isolated in the learning context, and additional information as explicit rule teaching was provided. Furthermore, all central features were highlighted with different colours and underlined in the Power-Point presentation, see examples in figures 4 and 5.

Figure 4: Screenshot from the lecture PowerPoint

The slide is titled "ELEMENTS IN A SENTENCE" in a white box. Below the title, there are two bullet points: "What elements can we have in a sentence?" and "Subject (S), verbal (V), object (O)". At the bottom, there is a table with two columns: "ELEMENT" and "EXAMPLE".

ELEMENT	EXAMPLE
Subject (S)	<u>Linda</u> bought a car.
Verbal (V)	Linda <u>bought</u> a car.
Object (O)	Linda bought <u>a car</u> .

Figure 5: Screenshot from the lecture PowerPoint

The slide is titled "THE AGREEMENT RULE" in a white box. Below the title, there are two bullet points: "In English, the subject and verbal must agree in number" and "Most verbs: present tense, third person singular → -(e)s". Below the bullet points, there are two examples: "I leave – he leaves" and "She drives – they drive".

As we worked more with identifying the elements, I chose to involve the pupils more and asked them to come to the board and identify and underline the different elements.

When presenting the rule on subject-verb agreement, I used different colours to highlight the sentence elements, to create a visual representation of the agreement between the subject and the verbs.

The deductive approach with its rule-driven instruction is teacher-focused and controlled, and I made sure to balance out the session with appropriate tasks and exercises to ensure that the pupils were involved and got to practice and learn the rule, according to the aims of pedagogical grammar (Newby 2018), presented in section 2.2.2.

Part 3: Task: S-V ‘card-game’

The ‘card-game’ was inspired by a drag-and-drop task in another intervention study (Teixeira

2017). I created sentences and marked the subject (S), verb (V), and object (O) for each sentence (see Appendix 7). There were eight sentences with singular subjects and eight sentences with plural objects. I printed out and cut out all of the sentences into ‘cards’. The pupils worked in pairs, and each pair was given one copy of all the sentences, singular and plural mixed. They were told to work together to create sentences in SVO order by using the cards. The sentence elements were made as general as possible to make sure that there were several possibilities when creating the sentences.

According to the session plan (see Appendix 6), I had scheduled 15 minutes for the ‘card-game in’ session 1. Due to a mix of scheduling errors and eager pupils, we used shorter time on the instruction and thus had more time to work with the tasks. In session 1 the pupils used approximately 25 minutes to play the ‘card-game’, and by the end of that time, they had to submit a minimum of 16 sentences.

Part 4: Task: ‘Describe the cartoon’

This task is based on Lizka’s (2009) study on the acquisition of tense in L2 English. She showed a clip of Mr Bean and asked the participants to describe what happened in the clip orally. I chose to adapt Lizka’s approach. In the present study, I chose another video clip as I judged Mr Bean to be less motivating for the pupils to watch. Instead, I used an episode of the Pink Panther. I also wanted the pupils to write down sentences instead of recording an oral response, due to strict regulations on data collecting.

The pupils’ task was to watch the video and write down sentences that describe actions in the video clip. The task was answered individually. All pupils were given a list of verbs that occur in the video (see Appendix 8) to make it easier for them to pay attention to subject-verb agreement instead of thinking of verbs to use.

The clip shows an episode of the animated Pink Panther (Official Pink Panther). In the episode the Panther and the antagonist the Little Man are painting a house, the Panther with pink and the Little Man with blue. After a long quarrel and a lot of re-painting, the house and the surroundings – the soil, the flowers, the Little Man, and the sky – are all pink, and the cartoon fades out. The video clip was played two times, and the pupils had to submit their sentences.

4.3.2 Session 2: Long-distance agreement

In this section, I will describe session 2 of the intervention and the different elements of instruction and tasks that the session included. In section 5.3.2 I present a teacher's log, explaining how the methods worked in the classroom.

Part 1: Inductive approach, error correction task

Part 1 was conducted in the same way as in session 1. The pupils received a sheet with sentences they had judged incorrectly in the pre-test and were asked to correct any errors in the sentences. This time, the sheets focused on long-distance agreement, but still included local agreement as well. As in session 1, this task provided both positive and negative evidence.

Part 2: Repetition from session 1

Part 2 consisted of repetition from the explicit grammar teaching in session 1. I began by letting the pupils explain what we did. Then I repeated the sentence elements and sentence structure and the rules for subject-verb agreement, and when a verb requires the 3SG *-s* suffix.

Part 3: Explicit grammar instruction

Part 3 continued with explicit grammar instruction, now with focus on long-distance agreement. I began by pointing out the difference between local agreement and long-distance agreement. I chose to call the intervening element between the head noun and the verb (X) in long-distance agreement sentences, meaning that the sentence structure for these sentences would be S-X-V-O.

As in session 1, I used the blackboard to include the pupils in this grammar instruction, by letting them identify sentence elements and correct errors in the examples on the blackboard.

Part 4: Task: S-V 'card-game'

The 'card-game' in session 2 worked in the same way as the 'card-game' in session 1. In session 2 the cards have four sentence elements: the subject(s) (S), the intervening element (X), the verb (V), and the object (O). The sentences consist of both singular and plural subjects, and all cards were mixed. The pupils worked in pairs and were told to create sentences in SXVO order by using the different cards. The sentence elements were made as general as possible to make sure that there were several possibilities when creating the sentences.

The pupils were asked to make a minimum of 20 sentences, and they used approximately 30 minutes on this task.

Part 5: Writing task

Part 5 of session 2 was the writing task. This task was planned to ensure that the pupils could use their new knowledge in text production. I wanted them to write a short text using the present simple, and therefore requiring the suffix *-s* in third person singular. I also emphasised that they should use other subjects than the first person because the goal was to practice 3SG *-s*, which requires the person to be the third person. I gave them three topics to choose from: “Describe a typical day in your life”, “Describe your life ten years from now”, and “Describe your dream holiday”.

The pupils were given 20 minutes to do this writing task. It was crucial to me that a writing task needed to be simple in order to let the pupils focus on subject-verb agreement rather than the topic of their text. These decisions were made with considerations to Thornbury (1999), see section 2.2.2. The pupils had no time-pressure to finish the task, and my role was being a supporting supervisor during the session.

5 Results

For the analysis of the data, the lme4 package (Bates et al. 2015) in R was used to perform logistic mixed effects analysis of the effects of ‘Test’ (Pre/Post) and ‘Group’ (Test/Control). Several models were created, one for the whole data set, excluding the filler-constructions, and individual models for each of the subject-verb agreement-constructions (Local/Long and SG/PL). The dependent variable was the ‘Response’ (Correct/Wrong), and the independent variables were ‘Group’ and ‘Test’, and the interaction between ‘Group’ and ‘Test’. Random effects for ‘Participant’, ‘Item’ and ‘Proficiency score’ were included. The intercept in the model was the response of the test-group in the pre-test. Also, the results were put in Excel to produce the bar graphs presented in this chapter. The *p*-value is set to 0,05, which means that any value lower than that is statistically significant.

The main focus of this chapter is to investigate whether the instruction has had an effect on the participants’ judgement from the pre-test to the post-test. The results are presented in the order they were conducted. Section 5.1 presents the result of the Oxford proficiency test for the test-group. Section 5.2 presents the acceptability judgment task pre-test. Section 5.3 presents the results of the intervention. Section 5.4 presents the acceptability judgment task with a comparison between the pre-test and post-test. Section 5.5 presents the results in relation to the participant’s proficiency score. The section will also look at the test-group, their proficiency and results in the two AJTs.

5.1 Oxford proficiency test

As discussed in section 4.2.1, the pupils’ proficiency is measured with a multiple-choice task. This test is a subset of the Standardised Oxford Proficiency test. The test has 40 questions; however, as previously explained in example (8) in section 4.2.1, I chose to exclude one question when examining the results. Each correct answer gives one point, meaning the highest score is 39.

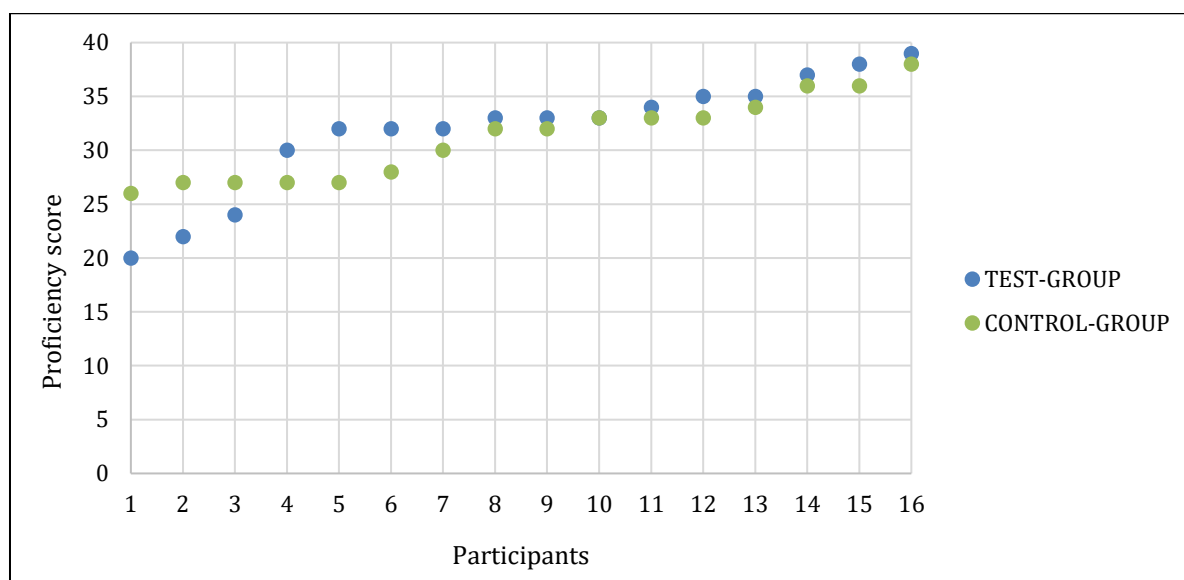
The scores range from 20 to 39 in the test-group, and 26 to 38 in the control-group. Table 7 shows the results of the proficiency test and figure 6 presents the results in a plot chart:

Table 7: Results from the proficiency test

Group	Score															Mean group-score	
Test-group	20	22	24	30	32	32	33	33	33	33	34	35	35	37	38	39	31,87
Control-group	26	27	27	27	27	28	30	32	32	33	33	33	34	36	36	38	31,18

This table illustrates a mean score of 31,87 for the test-group and 31,18 for the control-group. Thus, it seems that both groups are at the same level of proficiency in English.

Figure 6: Plot graph of the participants' proficiency scores



In section 5.5, I will present results where the proficiency scores are linked to improvements between the pre-test and the post-test. In section 6.5 I will discuss the role of proficiency when learning subject-verb agreement.

5.2 Acceptability judgement task, pre-test

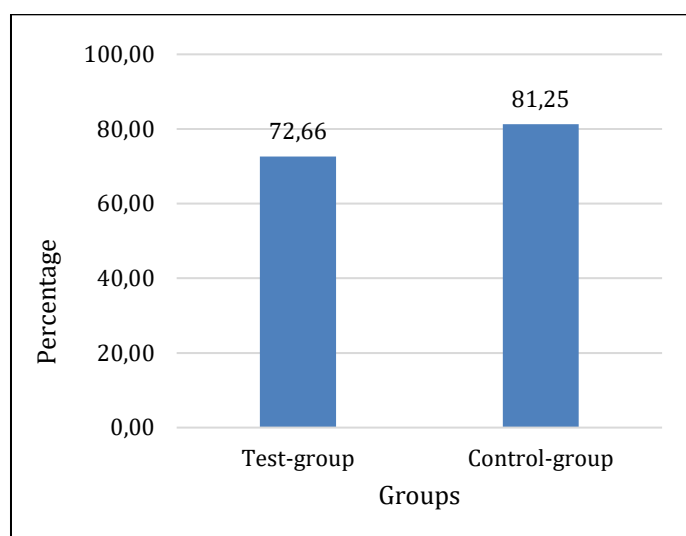
As presented in chapter 4, the experiment consists of 48 sentence pairs. There is one grammatical and one ungrammatical version in each sentence pair. The participants were asked to judge all 48 sentences as either correct or wrong. These are the results from the first test, before the instruction. The results will be presented with bar graphs from Excel. The results will consist of correct answers in the subject-verb agreement constructions and investigate the judgement of grammatical and ungrammatical sentences.

When presenting the results from the AJT in bar graphs, the x-axis shows the different constructions, while the z-axis shows the percentage of correct answers. Following Brown (1973), the target-like score is set at 90%, meaning that if the participants judge 90% of the sentences correct, they have acquired the feature with target-like accuracy.

5.2.1 Local agreement with singular subjects

Figure 7 shows the accuracy scores for local agreement with singular subjects in the pre-test for both the test-group and control-group.

Figure 7: Percentage of correct answers in local agreement with singular subjects in the pre-test



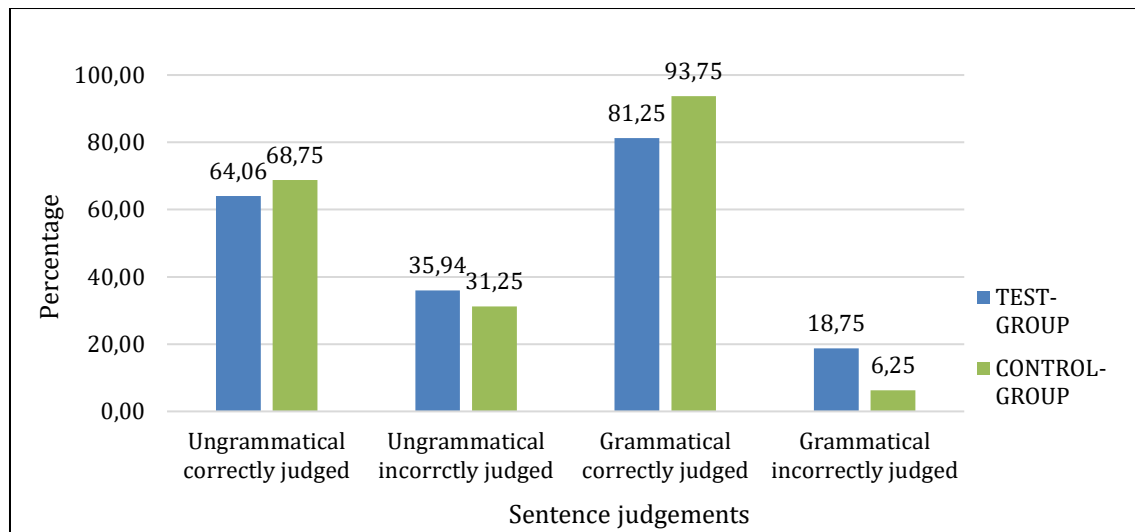
The test-group scored 72,66% and the control-group scored 81,25%. Following Brown (1973), the structure is considered acquired if it occurs at 90% in obligatory contexts. Both the test-group and the control-group had a high accuracy of this construction in the pre-test, but they were not target-like. The control-group scored higher than the test-group by nearly 9%, but as shown in table 8 in section 5.4.1, there is no main effect of 'Group'. The results suggest that there was no significant difference between the test-group and the control-group in the pre-test.

Figure 8 shows the sentence judgements according to grammatical and ungrammatical sentences in the pre-test. There are four categories, see (12):

- (12) a. ungrammatical sentences judged correctly
- b. ungrammatical sentences judged incorrectly

- c. grammatical sentences judged correctly
- d. grammatical sentences judged incorrectly

Figure 8: Percentage of sentence judgements in local agreement with singular subjects in the pre-test



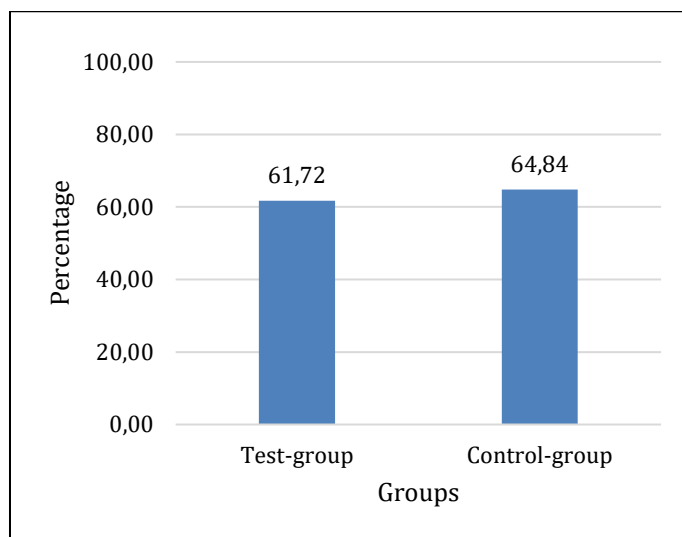
The participants had high accuracy in judging grammatical sentences correctly in the local agreement with singular subjects construction. The test-group judged 81,25%, and the control-group judged 93,75% of the grammatical sentences correctly. The control-group had target-like performance, while the test-group had high accuracy, but were not target-like. For the test-group 18,75% of the grammatical sentences were incorrectly judged, i.e. they overgeneralised the subject-verb agreement rule. For the control-group, the overgeneralisation was at 6,25%.

The data indicate that the participants were able to detect many of the ungrammatical sentences. Both groups judged over half of the ungrammatical sentences correctly, the test-group with an accuracy score of 64%, and the control-group with an accuracy of 69%. However, there was still one-third of the ungrammatical sentences that were judged incorrectly. For the test-group, the incorrect judgements were at 36%, and for the control-group, they were at 31%.

5.2.2 Local agreement with plural subjects

Figure 9 shows the score for local agreement with plural subjects in the pre-test for both the test-group and control-group.

Figure 9: Percentage of correct answers in local agreement with plural subjects in the pre-test



The test-group scored 61,72% and the control-group scored 64,84%. There was no significant difference between the test-group and the control-group in the pre-test in this construction (see table 9 in section 5.4.2).

Figure 10: Percentage of sentence judgements in local agreement with plural subjects in the pre-test

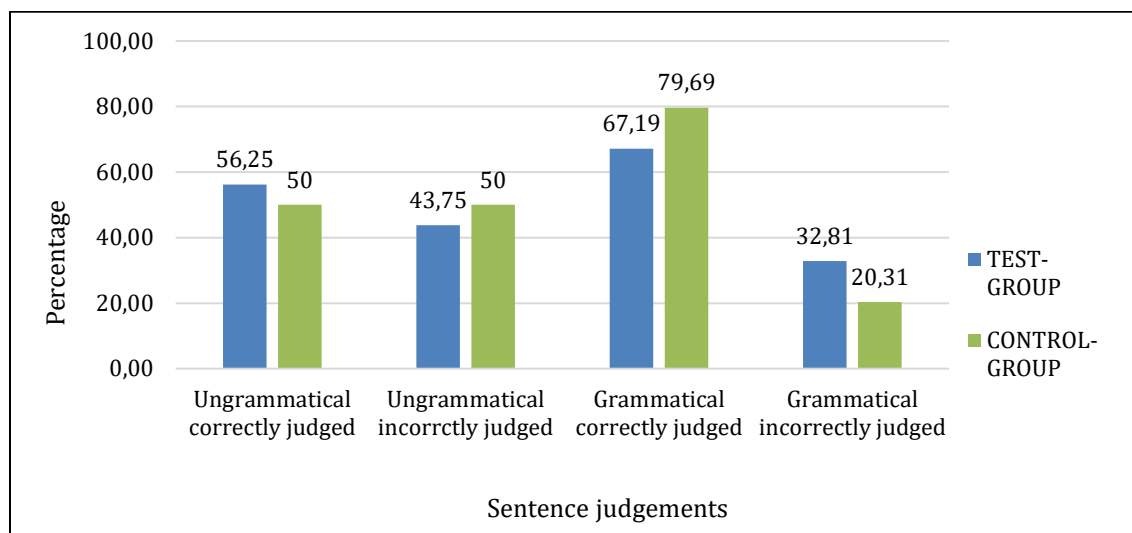


Figure 10 presents the sentence judgements according to grammatical and ungrammatical sentences in the pre-test. See section 5.2.1 for further information on the four constructions.

As the figure presents, this construction seemed to be more problematic for the participants, and ungrammatical sentences were more problematic than the grammatical sentences. The grammatical sentences were correctly judged at 67,19% for the test-group and 79,69% of the control-group. The results illustrate high accuracy, but not target-like performance. For the test-group, 32,81% of grammatical sentences were judged incorrectly,

for the control-group the score was 20,31%.

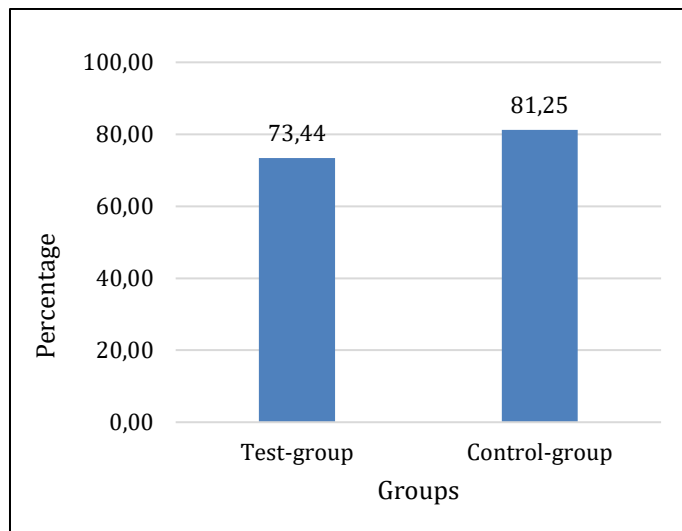
The test-group judged 56,25% of the ungrammatical sentences correctly, while 43,75% were judged incorrectly. The control-group had the same judgement for both correctly and incorrectly judged sentences, with 50% in both constructions.

The participants did not have high accuracy in judging sentences in this construction. Their accuracy was better when judging grammatical sentences, but their score did not reach target-like accuracy.

5.2.3 Long-distance agreement with singular subjects

Figure 11 shows the score for long-distance agreement with singular subjects in the pre-test for both the test-group and the control-group.

Figure 11: Percentage of correct answers in long-distance agreement with singular subjects in the pre-test



The test-group scored 73,44% and the control-group scored 81,25%. The control-group scored with near target-like accuracy. The control-group scored nearly 8% better than the test-group, but as table 10 in section 5.4.3 shows, there was no main effect of ‘Group’, meaning that this difference was not significant.

Figure 12: Percentage of sentence judgements in long-distance agreement with singular subjects in the pre-test

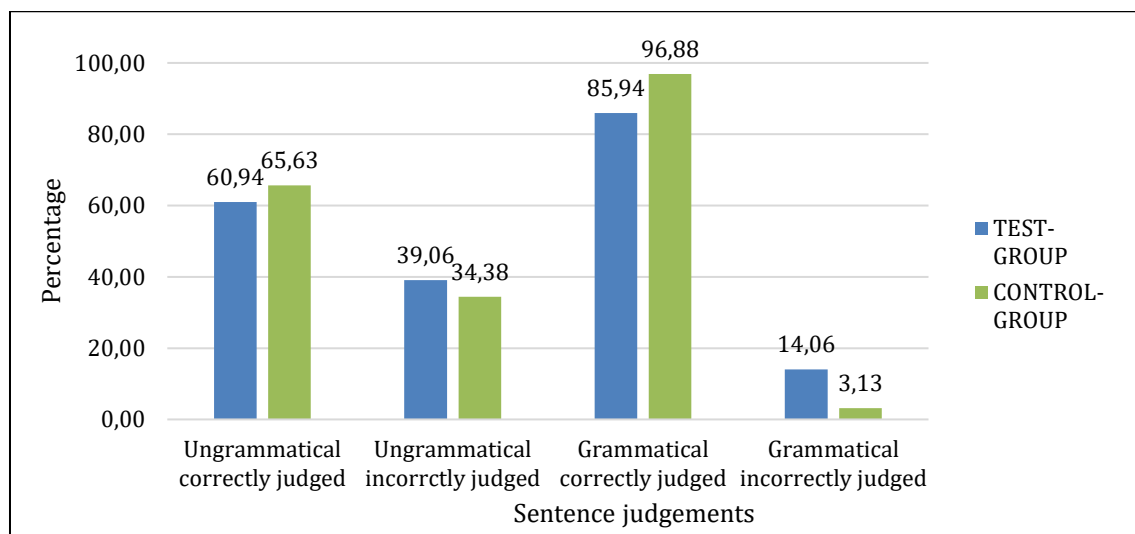


Figure 12 presents the sentence judgements according to grammatical and ungrammatical sentences in the pre-test. See section 5.2.1 for further information on the four constructions.

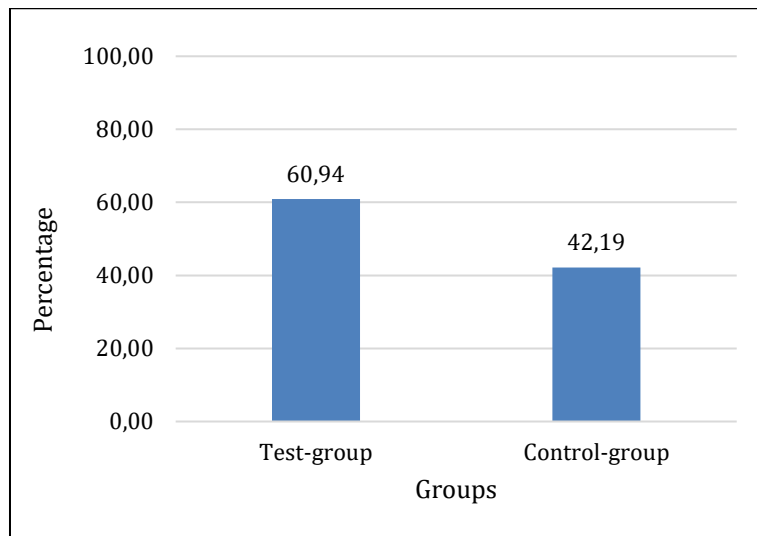
The bar graph in figure 12 clearly shows that the grammatical sentences in this construction were less problematic for the participants. The test-group judged 85,94% of the grammatical sentences correctly, and the control-group judged 96,88% correctly. These results placed the test-group at nearly target-like performance, and the control-group did indeed perform at a target-like level. 14,05% of the grammatical sentences were incorrectly judged by the test-group, while for the control-group the incorrect judgement is at 3,13%.

For the test-group, 60,94% of the ungrammatical sentences were judged correctly, while 39,06% of sentences were judged incorrectly. The control-group judged 65,63% of the ungrammatical sentences correctly, while 34,38% of sentences were incorrectly judged. Both groups judged approximately two-thirds of the sentences correctly, while one third was judged incorrectly. The participants' accuracy for the ungrammatical sentences was not high. The participants have a middle-level to high accuracy in the long-distance agreement with singular subjects construction.

5.2.4 Long-distance agreement with plural subjects

Figure 13 shows the score for long-distance agreement with plural subjects in the pre-test for both the test-group and control-group.

Figure 13: Percentage of correct answers in long-distance agreement with plural subjects in the pre-test



The test-group scored 60,94% and the control-group scored 42,19%. Both groups scored with a middle-level accuracy in this construction. The test-group scored 18,75% better than the control-group. However, as table 11 in section 5.4.4 shows, there was no main effect of ‘Group’, meaning that there was no significant difference between the test-group and the control-group in the pre-test.

Figure 14: Percentage of sentence judgements in long-distance agreement with plural subjects in the pre-test

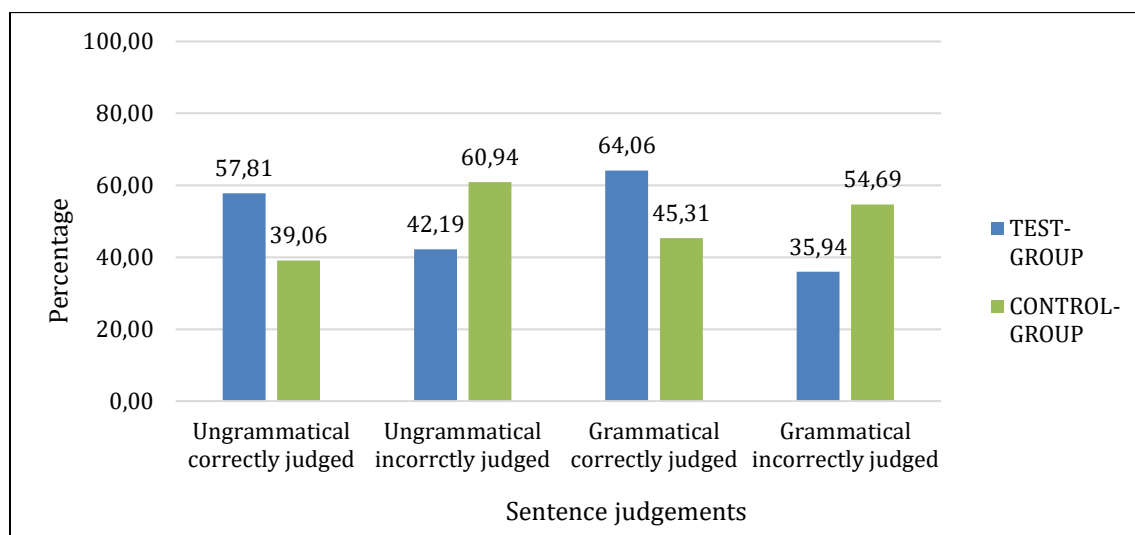


Figure 14 presents the sentence judgements according to grammatical and ungrammatical sentences for long-distance agreement with plural subjects in the pre-test. See section 5.2.1 for further information on the four constructions.

The bar graph shows a difference between the groups, and it seems that this construction was more problematic for the control-group than the test-group. The test-group

judged 57,81% of the ungrammatical sentences correctly, while 42,19% of the ungrammatical sentences were judged incorrectly. These numbers were close to 50%, and the test-group did not have high accuracy in judging the ungrammatical sentences. For the grammatical sentences, the test-group judged 64,06% of them correctly, while 35,94% were judged incorrectly. This is close to two-thirds of the sentences being judged correctly and one third incorrectly judged. These results suggest that the participants in the test-group had a middle-level accuracy of judging the grammatical sentences.

The control-group judged 39,06% of the ungrammatical sentences correctly, while 60,94% were incorrectly judged. These numbers indicate a low accuracy of ungrammatical sentences in this construction. 45,31% of the grammatical sentences were correctly judged, while 54,59% were incorrectly judged. These scores are close to 50% in both correct and incorrect judgements, meaning the control-group was at a middle-level accuracy for the grammatical sentences in the long-distance agreement with plural subjects construction.

5.3 Intervention

In this section, I will present the results of the intervention. These results are based on a teacher's log I wrote during the intervention, the work handed in by the pupils and events in the classroom. Section 5.3.1 presents results and events from session 1, while section 5.3.2 presents results and events from session 2.

5.3.1 Session 1

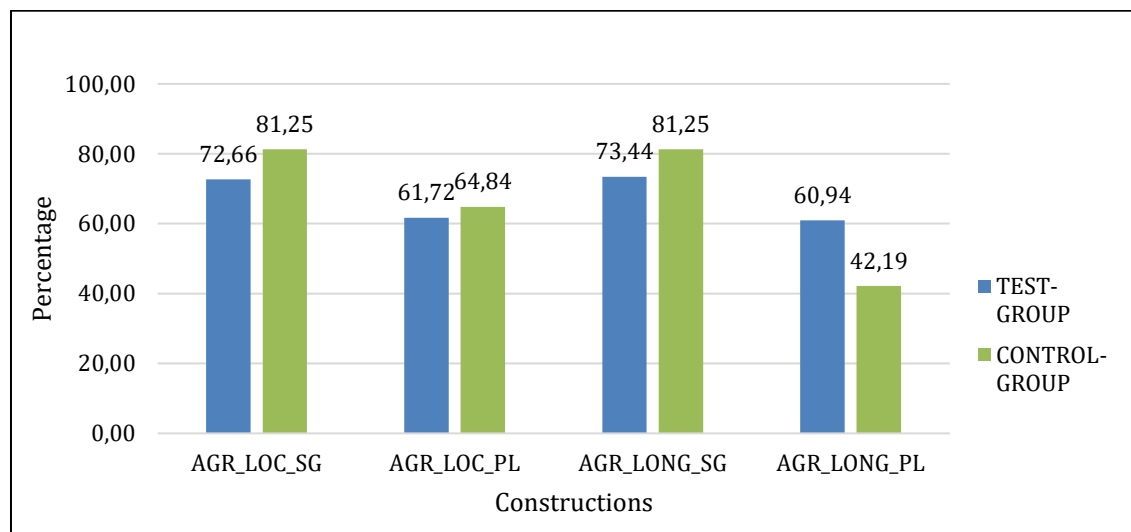
Part 1: Inductive approach, error correction task

The error correction task using the inductive approach provided many results. I managed to find a pattern of three various results of this task. Seven pupils corrected some of the subject-verb errors, but not all of them. Five of these seven pupils failed to correct errors with plural subjects, i.e. they prefer the existence of the 3SG *-s* (see Jensen et al. 2019). Seven pupils corrected all the subject-verb errors. Two pupils did not provide any data for this task.

During the session, we had a brief discussion after finishing this task. The pupils were able to identify the task as a subject-verb agreement task, by the usage of the suffix *-s*, but none of them were able to formulate a rule of when to use the *-s* suffix. Several pupils had ideas, but they were insecure and would not state a definite rule. I am not very familiar with the inductive approach, and in this situation, I could have provided the pupils with more scaffolding and support, instead of presenting the rule to them when they were insecure.

When the participants had completed the error correction task, I presented the results from the pre-test to them, see figure 15.

Figure 15: Graph shown to the pupils before the intervention began



I chose to present the results to the participants as a pedagogical tool, as this could motivate them to work hard and improve their scores. There was some rivalry between the groups, and I found that the test-group could be motivated by seeing how much they needed to improve by seeing the control-group's scores as well. Before presenting the results to them, I told them that subject-verb agreement is considered a problematic grammatical structure. The pupils were able to see that they performed with middle to high accuracy in this structure which I introduced as being difficult. Besides, the participants could see the constructions with room for improvement, giving them the motivation to work hard to improve their results.

Part 2: Explicit grammar instruction

The grammar instruction worked very well. Grammar instruction has a reputation of being labelled as 'boring', and I was worried that the pupils would not focus on the instruction. However, my observations suggest that they all paid attention, and all participated when asked. Some of them even asked follow-up questions when identifying the elements and practising the rule for placement of the 3SG suffix *-s*.

Part 3: Task: S-V 'card-game'

In session 1 I asked the pupils to hand in a minimum of 16 sentences that they had made. All groups handed in more sentences than I required. When looking through the sentences, I found very few subject-verb agreement errors.

The pupils clearly expressed that they liked this task. They asked for more time to play the game and were eager to build sentences. In addition to the positivity in class, I found few errors in the sentences handed in, and these two combined suggest that the ‘card-game’ is a useful task for learning subject-verb agreement.

5.3.2 Session 2

Part 1: Inductive approach, error correction task

As the pupils had done the same exercise in session 1, followed by explicit grammar instruction, I thought that the pupils would correct more errors in this task in session 2 than in session 1. However, since these task-sheets focused on long-distance agreement, there were various results this time as well. Most of the local agreement errors were corrected. Some of the long-distance agreement errors were corrected, but not all of them, indicating that they still had difficulties with identifying the subjects and verbs and the correct usage of the 3SG -s.

Part 2: Explicit grammar instruction: presentation, practice, production

The grammar instruction was very much alike in sessions 1 and 2. The pupils paid attention and participated and asked questions. In session 2 we used the blackboard more actively during the grammar instruction. I wrote sentences with long-distance agreement, and the pupils were asked to come up to the board, identify sentence elements, and to correct subject-verb agreement errors. I found that this method worked well, as I observed all pupils participated and several asked follow-up questions.

Part 3: Task: S-V ‘card-game’

Before starting session 2, some of the pupils asked if they could play the ‘card-game’ once more, this is more positive evidence towards this task being an effective grammar learning task.

As the pupils already knew the game, they were more efficient this time, even though the sentences now consisted of long-distance agreement and included the intervening element (X). Again, they submitted more sentences than I initially required, and I found very few subject-verb agreement errors in the submitted sentences.

Part 4: Writing task

The writing task went well. Most of the pupils started right away and produced much text. Furthermore, this task was the only task where I corrected the pupils. I used metalinguistic

feedback, which is “explaining an aspect of grammar in response to an error, without explicitly providing the correct answer” (Keck & Kim 2014:153). The main issue with the texts was errors due to tense, which led to the usage of the *-ing* form. With metalinguistic feedback, I let the pupils know of a mistake and let them correct it themselves. The texts they submitted had few subject-verb agreement errors.

5.4 Acceptability judgement task, pre- and post-test compared

This subsection presents the results from the pre-test and the post-test together, in order to investigate any significant changes between the two tests. The effect of ‘Test’ means that there are more correct responses in the post-test compared to the pre-test. An interaction between ‘Group’ and ‘Test’ means that the control-group will have a smaller increase in the number of correct answers compared to the test-group. The constructions will be presented separately in different subsections.

5.4.1 Local agreement with singular subjects

As presented in section 5.2.1, both the test-group and the control-group had high, but not target-like accuracy in this construction. There was not any significant difference between the groups in the pre-test.

When investigating the results from the pre-test to the post-test, there were some clear findings. In local agreement singular, there was a main effect of ‘Test’ ($p < 0,05$) and an interaction between ‘Test’ and ‘Group’ ($p < 0,05$). This means that the test-group improved significantly from the pre-test to the post-test, while the control-group did not improve at all. Table 8 presents the statistical data from *R* for this construction.

Figure 16: Percentage of correct answers in local agreement with singular subjects in both tests

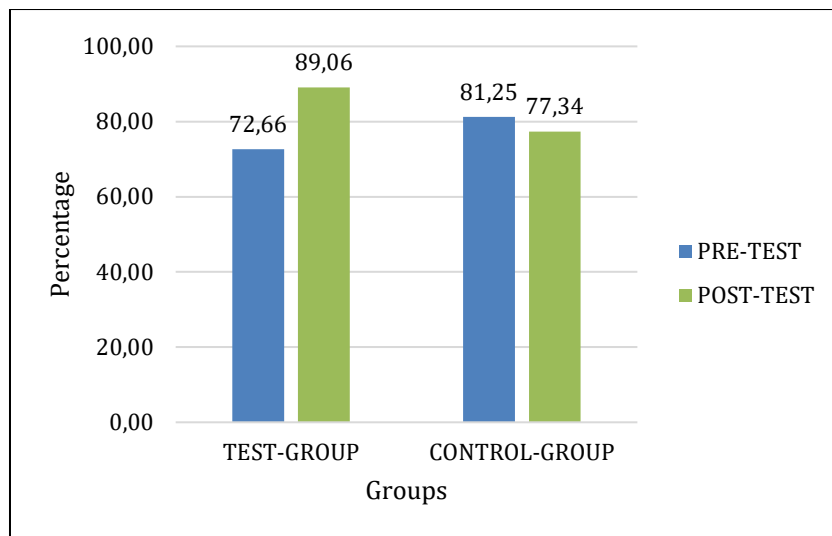


Figure 16 presents an improvement for the test-group. They judged 72,66% of the sentences correctly in the pre-test and 89,06% of the sentences in the post-test. That was a 16,4% improvement. These results show that the test-group has improved from a high-accuracy to a near target-like (90%) performance with this construction.

The control-group judged 81,25% of the sentences correctly in the pre-test and 77,34% in the post-test. These numbers show a small reduction by 3,9% between the tests. The control-group's results were stable at approximately 80% accuracy.

Table 8: Statistical data, local agreement with singular subjects

	Beta	Std. Error	Z-value	P
Intercept	1,3337	0,5642	2,364	0,018085 *
TestPost-test	1,5527	0,4029	3,854	0,000116 ***
GruppeKontroll	0,5648	0,5725	0,987	0,323840
TestPost-test:GruppeKontroll	-1,8541	0,5275	-3,515	0,000440 ***

Figure 17: Test-group's sentence judgments in local agreement with singular subjects in both tests

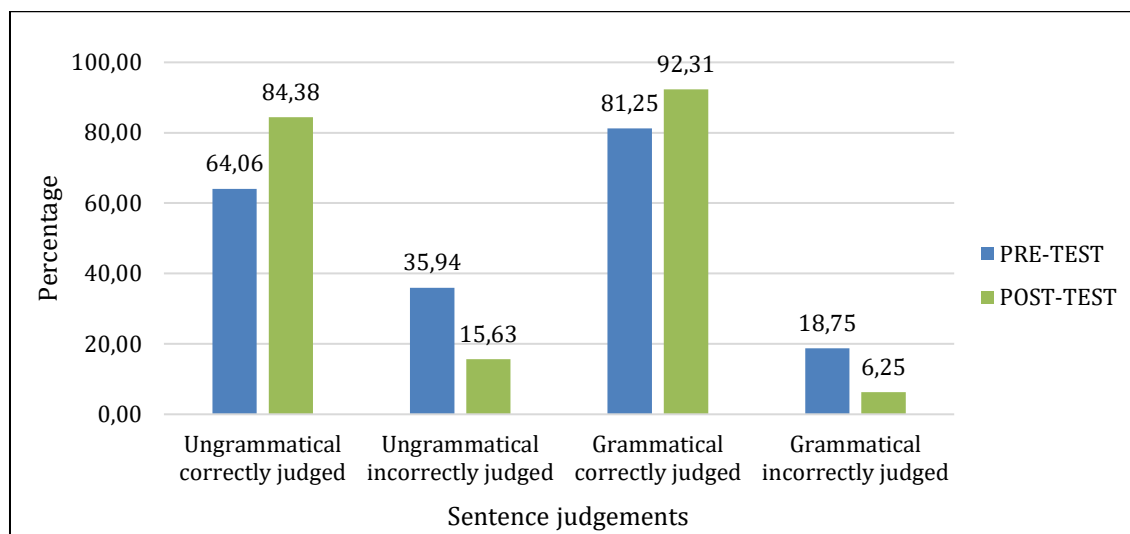


Figure 17 presents the test-group's judgements of sentences in local agreement with singular subjects in both tests. See section 5.2.1 for further information on the four constructions.

For the ungrammatical sentences, there was an improvement from the pre-test to the post-test. In the pre-test, 64,06% of ungrammatical sentences were judged correctly, and in the post-test, the percentage of correct judgements had increased to 84,38%. This was an improvement of over 20%. Thus, the incorrect judgement of ungrammatical sentences has been reduced from 35,94% to 15,63%. In the post-test, the participants in the test-group show nearly target-like performance in the ungrammatical sentences, meaning they can detect the errors in this construction.

The judgements of the grammatical sentences were quite high in the pre-test, and therefore there was smaller room for improvement. However, the participants in the test-group did improve. In the pre-test, 81,25% of the grammatical sentences were judged correctly, and in the post-test, the percentage rose to 92,31%. The incorrect judgements on grammatical sentences were 18,75% in the pre-test and 6,25% in the post-test. The test-group showed target-like performance when judging the grammatical sentences.

Figure 18: Control-group's sentence judgments in local agreement with singular subjects in both tests

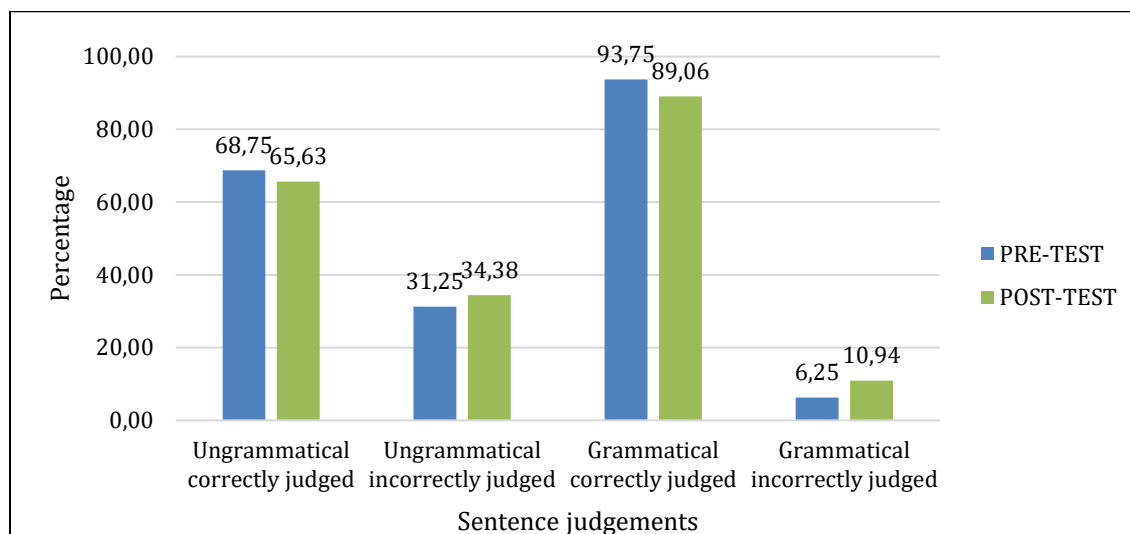


Figure 18 presents the sentence judgements in local agreement with singular subjects for the control-group in both tests. Overall the percentages in all the constructions were relatively stable, compared to the test-group's results.

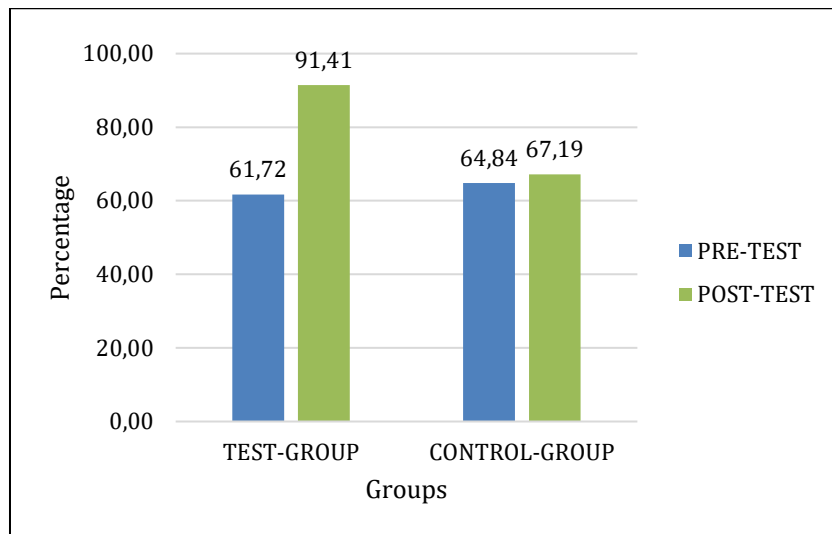
68,75% of the ungrammatical sentences were judged correctly in the pre-test, and 65,63% were correctly judged in the post-test. 31,25% of the ungrammatical sentences were judged incorrectly in the pre-test, and 34,38% were incorrectly judged in the post-test. Thus, the control-group shows stable, middle-level accuracy of detecting the ungrammatical sentences. Approximately two-thirds of the ungrammatical sentences were judged correctly, while one third was judged incorrectly.

The control-group had a stable accuracy near target-like performance with the grammatical sentences in the local singular construction. The control-group judged the grammatical sentences correctly 93,75% in the pre-test and 89,06 % in the post-test.

5.4.2 Local agreement with plural subjects

In the local agreement with plural subjects construction, the test-group had substantial improvement from the pre-test to the post-test. There was a main effect of 'Test' ($p < 0,05$) and an interaction between 'Test' and 'Group' ($p < 0,05$), meaning that the test-group improved significantly from the pre-test to the post-test, whereas the control-group did not improve as much. There was no main effect of 'Group', as the control-group was not significantly different from the test-group in the pre-test. These results are presented in table 9.

Figure 19: Percentage of correct answers in local agreement with plural subjects in both tests



The test-group judged 61,72% of the sentences in this construction correct in the pre-test and 91,41% correct in the post-test. This shows an improvement of nearly 30% between the tests. These results show that the test-group had improved from a middle accuracy to a target-like performance in this construction.

The control-group judged 64,84% of the sentences in this construction correct in the pre-test and 67,19% in the post-test. There was no significant improvement for the control-group. The control-group's results were stable between 65% and 70% accuracy, which is considered as middle-level accuracy.

Table 9: Statistical data, local agreement with plural subjects

	Beta	Std. Error	Z-value	P
Intercept	0,8191	0,5358	1,529	0,126
TestPost-test	2,6059	0,4492	5,801	6,58e-09 ***
GruppeKontroll	0,1163	0,6469	0,180	0,857
TestPost-test:GruppeKontroll	-2,4595	0,5460	-4,504	6,65e-06 ***

Figure 20: Test-group's sentence judgments in local agreement with plural subjects in both tests

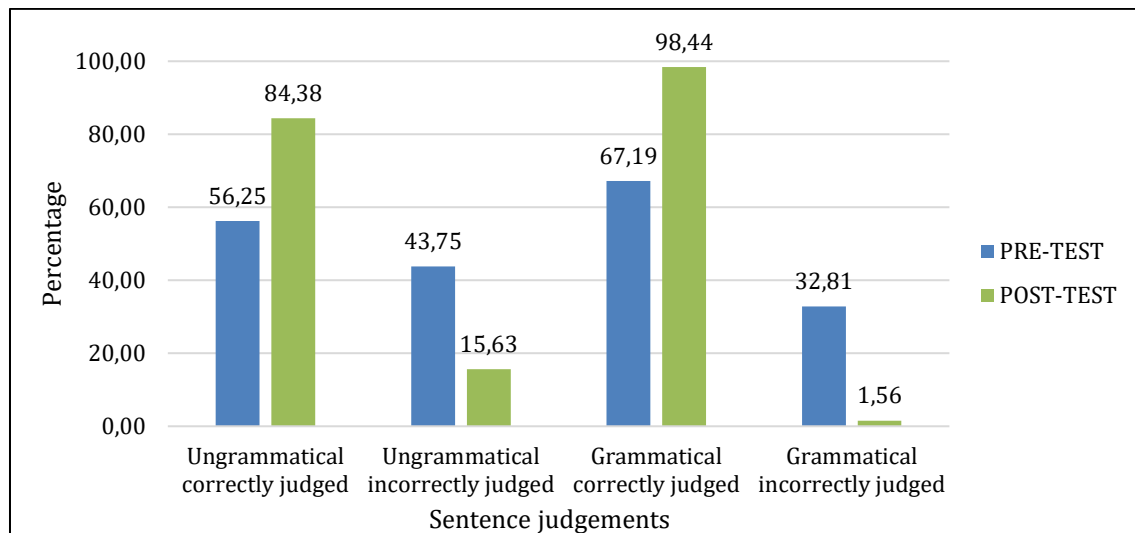


Figure 20 presents the test-group's judgements of sentences in local agreement with plural subjects in both tests. See section 5.2.1 for further information on the four constructions.

In the pre-test, 56,25% of the ungrammatical sentences were judged correctly, while in the post-test their accuracy had increased to 84,38%. This was nearly a 28% improvement. This improvement shows that the test-group had improved their accuracy to be nearly target-like performance in the post-test. The incorrectly judged ungrammatical sentences were reduced from 43,75% in the pre-test to 15,63% in the post-test.

67,19 % of the grammatical sentences were judged correctly in the pre-test, while in the post-test the correct judgements increased to 98,44%. This is an improvement by over 30%, and it shows that the test-group had reached a target-like performance for the grammatical sentences in the local agreement with plural subjects construction. The incorrectly judged grammatical sentences were reduced from 32,81% in the pre-test to 1,56% in the post-test.

Figure 21: Control-group's sentence judgements in local agreement with plural subjects in both tests

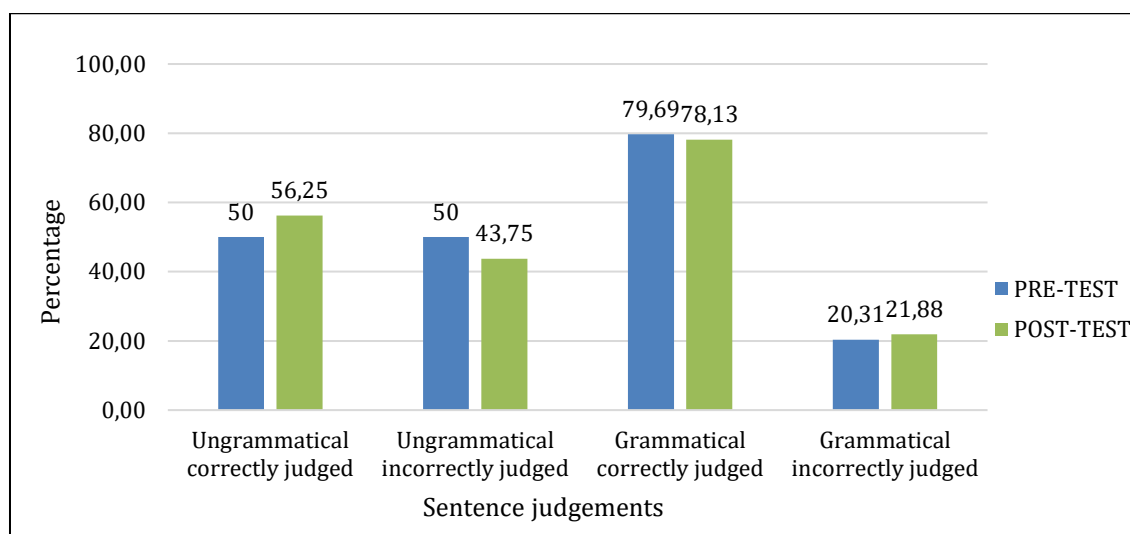


Figure 21 presents the sentence judgements in local agreement with plural subjects for the control-group in both tests. Overall the percentages in all the constructions are relatively stable, compared to the test-group's results.

In the pre-test, the control-group judged precisely half of the ungrammatical sentences correctly, meaning that 50% of the sentences were judged incorrectly. For the ungrammatical sentences, there was some improvement in the post-test, as 56,25% of the sentences were correctly judged, and the incorrectly judged ungrammatical sentences was reduced to 43,75%.

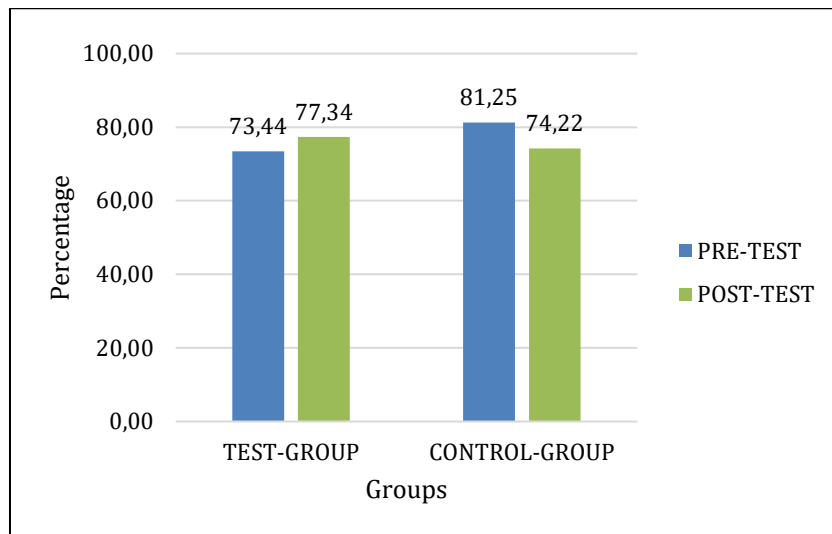
For the grammatical sentences, the correct judgements were at 79,69% in the pre-test and 78,13% for the post-test. The incorrect judgements were at 20,31% in the pre-test and 21,88% in the post-test.

The control-group seems stable at approximately 50% accuracy of detecting the ungrammatical sentences, while they have a higher accuracy on around 80% in detecting grammatical sentences.

5.4.3 Long-distance agreement with singular subjects

For the construction long-distance agreement with singular subjects, there were not any significant findings, but the results were fascinating. There was no effect of 'Test' or interaction between 'Test' and 'Group', meaning that the test-group did not improve significantly from the pre-test to the post-test and also that this improvement was not significantly better than the improvement made by the control-group. There was no main effect of 'Group', as the control-group was not significantly different from the test-group in the pre-test. The results are presented in table 10.

Figure 22: Percentage of correct answers in long-distance agreement with singular subjects in both tests



The test-group improved slightly from 73,44% in the pre-test to 77,34% in the post-test. The control-group had a slight deterioration from 81,25% in the pre-test to 74,22% in the post-test. Thus, even though there was some improvement for the test-group between the tests, the improvement was not big enough to make it statistically significant. There were no significant results for the control-group as they had a decline between the pre-test and the post-test.

Table 10: Statistical data, long-distance agreement with singular subjects

	Beta	Std. Error	Z-value	P
Intercept	1,7273	0,6377	2,709	0,00675 **
TestPost-test	0,3046	0,3539	0,861	0,38937
GruppeKontroll	0,5095	0,6762	0,754	0,45117
TestPost-test:GruppeKontroll	0,8614	0,4948	-1,741	0,08166

Figure 23: Test-group's sentence judgments in long-distance agreement with singular subjects in both tests

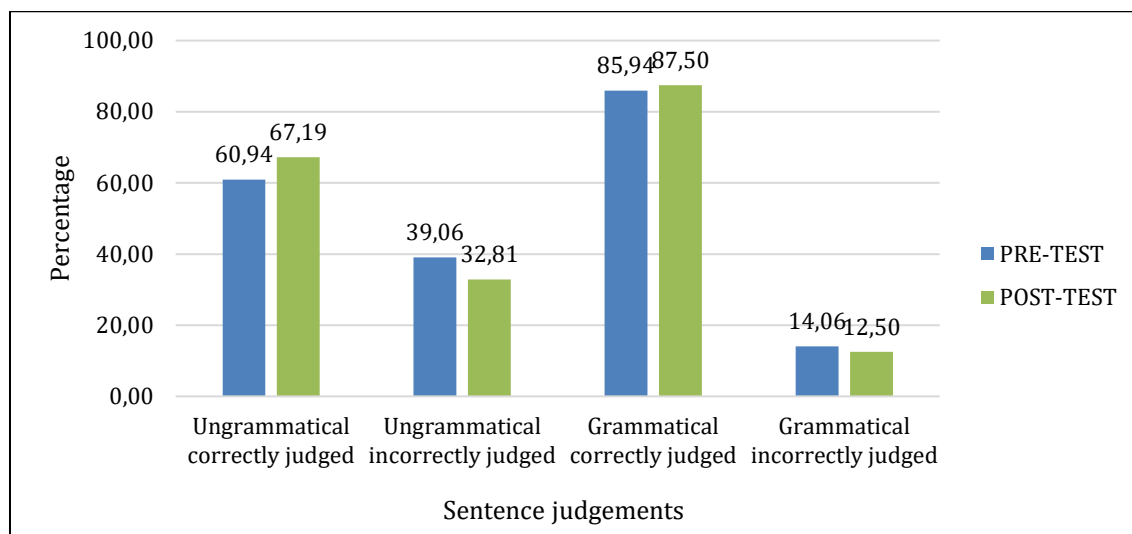


Figure 23 presents the test-group's judgements of sentences in long-distance agreement with singular subjects in both tests. See section 5.2.1 for further information on the four constructions.

As illustrated by the results in figure 23, there were no significant improvements in the test-groups judgement of sentences between the tests. For the ungrammatical sentences, 60,94% were judged correctly in the pre-test, and 67,19% were correctly judged in the post-test. Similarly, the numbers for incorrectly judged sentences were reduced from 39,06% in the pre-test to 32,81% in the post-test. This leaves the test-group at somewhere between 60 and 70% accuracy of detecting the ungrammatical sentences in this construction.

The test-group was better at judging grammatical sentences, as they judged 85,94% of them correctly in the pre-test and 87,50% in the post-test. The incorrect judgements were thus reduced from 14,06% to 12,50% between tests. The test-group had high accuracy in judging grammatical sentences and reached nearly target-like performance.

Figure 24: Control-group's sentence judgments in long-distance agreement with singular subjects in both tests

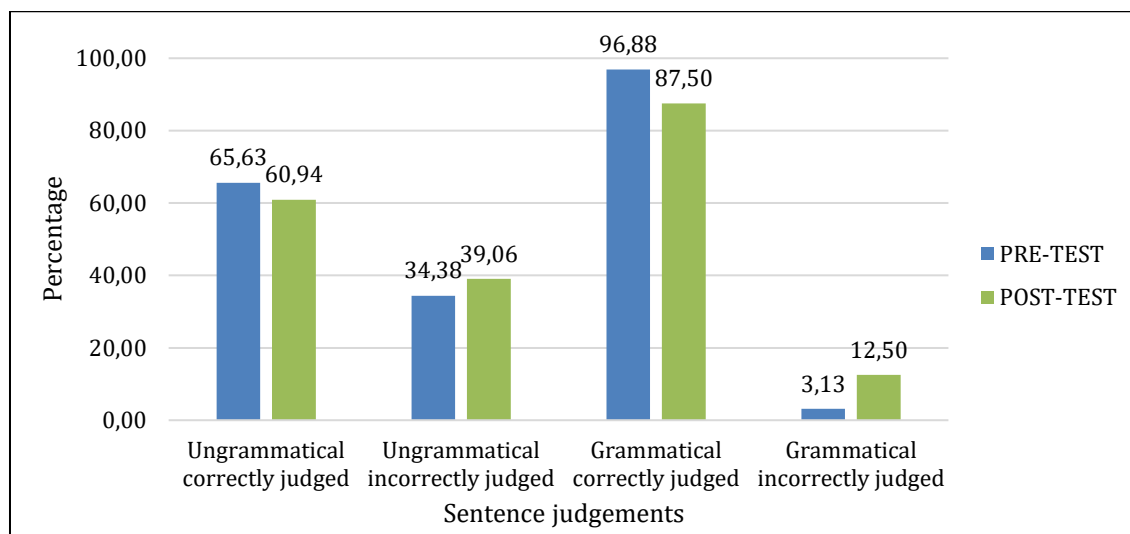


Figure 24 presents the sentence judgements in long-distance agreement with singular subjects for the control-group in both tests. Overall, the percentages in all the constructions were relatively stable, but with a small decline in the number of correct judgements.

Ungrammatical sentences were judged correctly 65,63% in the pre-test and 60,94% in the post-test, and the incorrectly judged percentages went from 34,38% in the pre-test to 39,06% in the post-test. There was a small decline in correct judgements on ungrammatical sentences, and the control-groups accuracy was stable at 60% to 65%.

The control-group had higher accuracy in judging grammatical sentences than ungrammatical sentences. In the pre-test 96,88% of the sentences were judged correctly, leaving only 3,13% judged incorrectly. In the post-test, the numbers declined a bit, to 87,50% of sentences judged correctly and 12,50% judged incorrectly. The control-group varied a bit in accuracy, from target-like performance to high accuracy.

5.4.4 Long-distance agreement with plural subjects.

Table 11 shows the statistical analysis for long-distance agreement with plural subjects. There was a significant improvement in 'Test' ($p < 0,05$), meaning that the test-group has improved from the pre-test to the post-test. However, there was not any interaction between 'Group' and 'Test, meaning that the improvement for the test-group was not significantly better than the improvement of the control-group. There was no main effect of 'Group', as the control-group was not significantly different from the test-group in the pre-test.

Figure 25: Percentage of correct answers in long-distance agreement with plural subjects in both tests

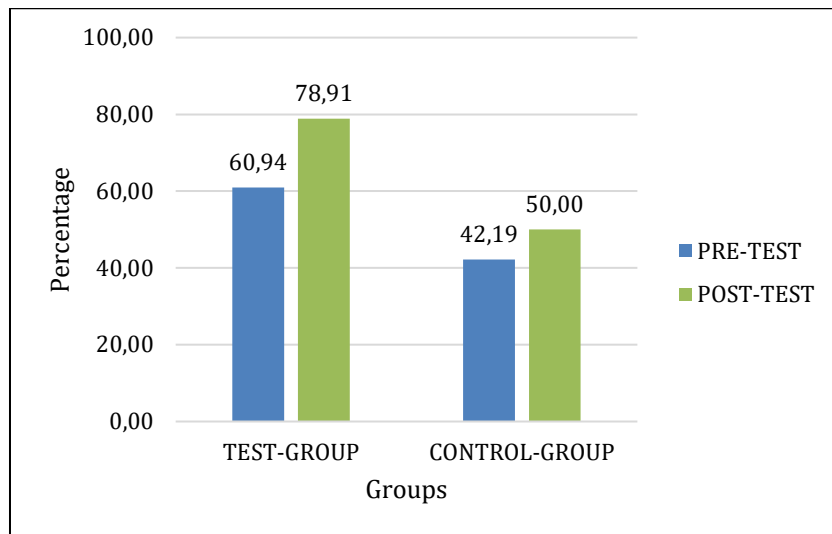


Figure 25 shows that both groups have improved between the tests. The test-group judged 60,94% of the sentences correct in the pre-test and 78,91% in the post-test. This was an improvement of roughly 18%. The test-group improved from middle to high accuracy in this structure, but they did not reach target-like performance.

The control-group judged 42,19% of the sentences correctly in the pre-test and 50% in the post-test, giving them an improvement at roughly 8%. They were stable at a middle-level accuracy in this structure.

Table 11: Statistical data, long-distance agreement with plural subjects

	Beta	Std. Error	Z-value	P
Intercept	0,7792	0,4785	1,628	0,10345
TestPost-test	1,2008	0,3422	3,509	0,00045 ***
GruppeKontroll	-1,0527	0,5927	-1,776	0,7571
TestPost-test:GruppeKontroll	-0,7975	0,4428	-1,801	0,07172

Figure 26: Test-group's sentence judgments in long-distance agreement with plural subjects in both tests

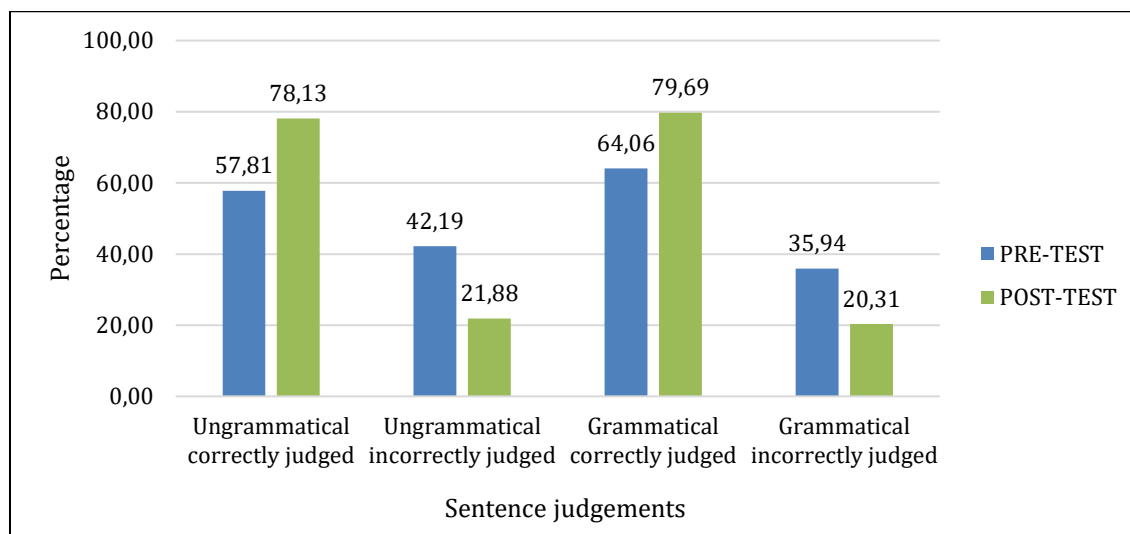


Figure 26 presents the test-group's judgements of sentences in long-distance agreement with plural subjects in both tests. See section 5.2.1 for further information on the four constructions.

Ungrammatical sentences were judged correctly 57,81% in the pre-test and 78,13% in the post-test, and the incorrectly judged percentages go from 42,19% in the pre-test to 21,88% in the post-test. These numbers show more than a 20% improvement in identifying the ungrammatical sentences in this construction from the pre-test to the post-test.

64,06% of the grammatical sentences were correctly judged in the pre-test, and 79,69% were correctly judged in the post-test. This equals 35,94% incorrectly judged in the pre-test and 20,31% in the post-test. There was an improvement by over 15% in identifying grammatical sentences in this construction from the pre-test to the post-test.

In the post-test, the test-group was able to judge both grammatical and ungrammatical sentences with high accuracy, but not at a target-like performance.

Figure 27: Control-group's sentence judgments in long-distance agreement with plural subjects in both tests

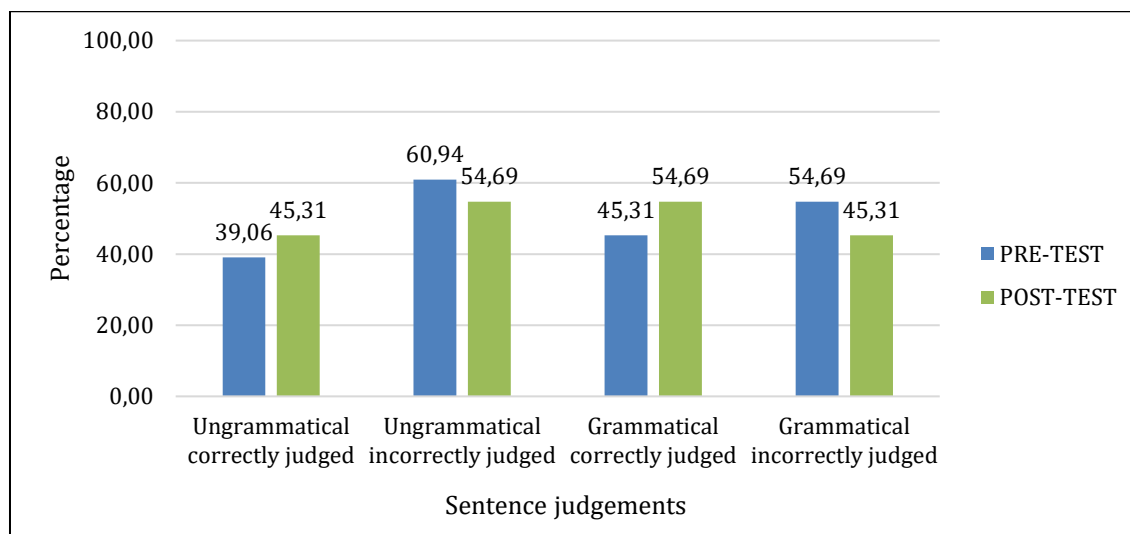


Figure 27 presents the sentence judgements in long-distance agreement with plural subjects for the control-group in both tests. Overall, the percentages in all the constructions were relatively stable, with small improvements between the tests.

Ungrammatical sentences were judged correctly 39,06% in the pre-test and 45,31% in the post-test, and the incorrectly judged percentages declined from 60,94% in the pre-test to 54,69% in the post-test. Thus, the results show that the control-group has a small improvement in detecting ungrammaticality in sentences, but that the pupils more often judged ungrammatical sentences incorrectly.

45,31% of grammatical sentences were judged correctly in the pre-test, compared to 54,69% in the post-test. Thus, the incorrect judgements went from 54,69% in the pre-test to 45,31% in the post-test. These results show that the control-group did improve in judging grammatical sentences as correct, but that they still judged almost half of the sentences incorrectly.

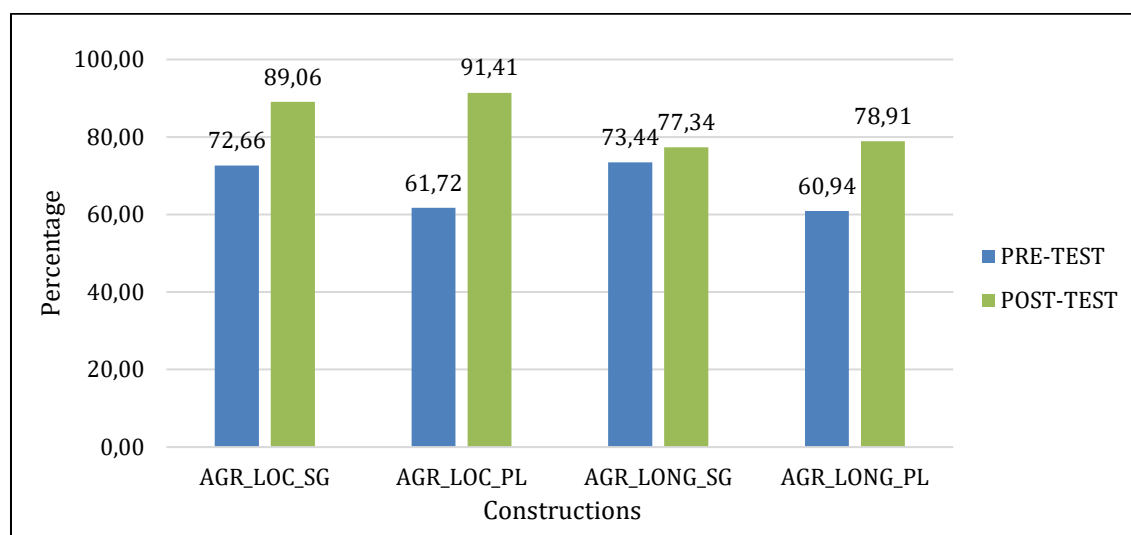
With both ungrammatical and grammatical sentences, the control-group judged half of them correctly and the other half incorrectly. They showed a low to middle-level accuracy in this construction.

5.4.5 All subject-verb agreement constructions

Table 12 shows the statistical analysis for all four subject-verb agreement constructions together. There is a main effect of ‘Test’ ($p < 0,05$) and an interaction between ‘Test’ and ‘Group’ ($p < 0,05$). The test-group showed significant improvement between the pre-test and the post-test, while the improvement in the control-group was significantly smaller. The absence of a main effect of ‘Group’ (“GruppeKontroll”) means that the control-group was not significantly different from the test-group in the pre-test.

Figure 28 shows the percentages of correct answers for the test-group and the control-group is presented in figure 29.

Figure 28: Test-group’s percentage of correct answers in both AJTs



When the results from all constructions in both the pre-test and post-test were put together, there were some precise results. Local agreement with plural subjects was the construction with the highest improvement from the pre-test to the post-test, from 61,72% to 91,41%: an improvement of nearly 30%. In the post-test, the participants had target-like performance.

The second-best improvement was long-distance agreement with plural subjects. The participants had 60,94% correct judgement in the pre-test and 78,91% in the post-test, giving them an improvement by nearly 18%. The participants had high accuracy in the post-test, but they did not have target-like performance.

Local agreement with singular subjects was the construction with third-best improvement, from 72,66% in the pre-test to 89,06% in the post-test. This was an improvement of over 16%. Local agreement with singular subjects was the construction with the second highest accuracy rate, with nearly target-like performance.

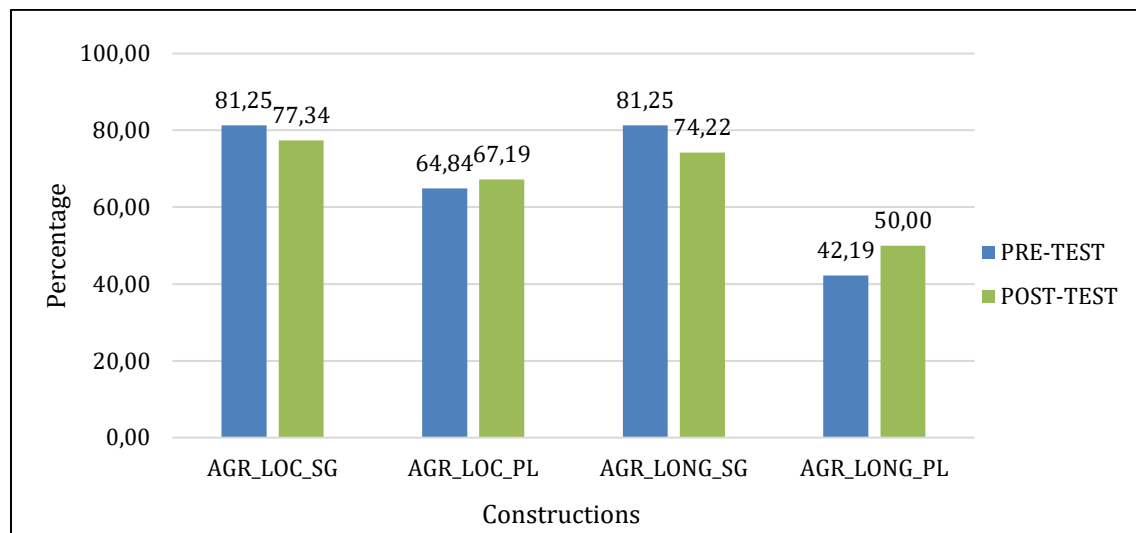
Long-distance agreement with singular subjects was the construction that separates itself from the three others. The test-group did not have any significant improvement in this construction and stayed stable between 70% and 80% accuracy.

Thus, the test-group showed the highest accuracy in the local agreement constructions, with target-like and near target-like performance. In the long-distance agreement constructions, they still showed high accuracy, but not target-like performance.

Table 12: Statistical data, all subject-verb agreement constructions

	Beta	Std. Error	Z-value	P
Intercept	1,4517	0,5012	2,896	0,00377 **
TestPost-test	1,3353	0,1899	7,033	2,02e-12 ***
GruppeKontroll	-0,3170	0,6219	-0,510	0,61207
TestPost-test:GruppeKontroll	-1,3469	0,2424	-5,556	2,76e-08 ***

Figure 29: Control-group's percentage of correct answers in both AJTs



The results for all constructions in both tests put together display minor changes for the control-group. The construction with the highest improvement from pre-test to post-test was long-distance agreement singular, with results from 42,19% in the pre-test to 50,00% in the post-test. Even though this construction had the highest improvement, the accuracy in the post-test was only at 50,00%, meaning the participants only judged half of the sentences correctly.

The other construction which shows improvement for the control-group is local

agreement with plural subjects. In this construction, the participants improved from 64,84% in the pre-test to 67,19% in the post-test. The improvement was small, and the results show that the control-group had a stable accuracy between 65% and 70%.

In local agreement singular, the control-group had a slight decline between the tests, with 81,25% in the pre-test and 77,34% in the post-test. These numbers suggest that the control-group lies between 75% and 85% accuracy of this construction. The control-group showed high accuracy, but they were not target-like.

There was a decline between tests in the long-distance agreement singular construction as well: from 81,25% in the pre-test to 74,22% in the post-test. Still, these results suggest that the control-group was stable at high accuracy in this construction.

The control-group had the highest accuracy in the two singular constructions, while the plural constructions seemed more problematic for them, as they had lower accuracy in these constructions. The most problematic construction was long-distance agreement with plural subjects.

Figure 30: Test-group's sentence judgements in all constructions in both tests

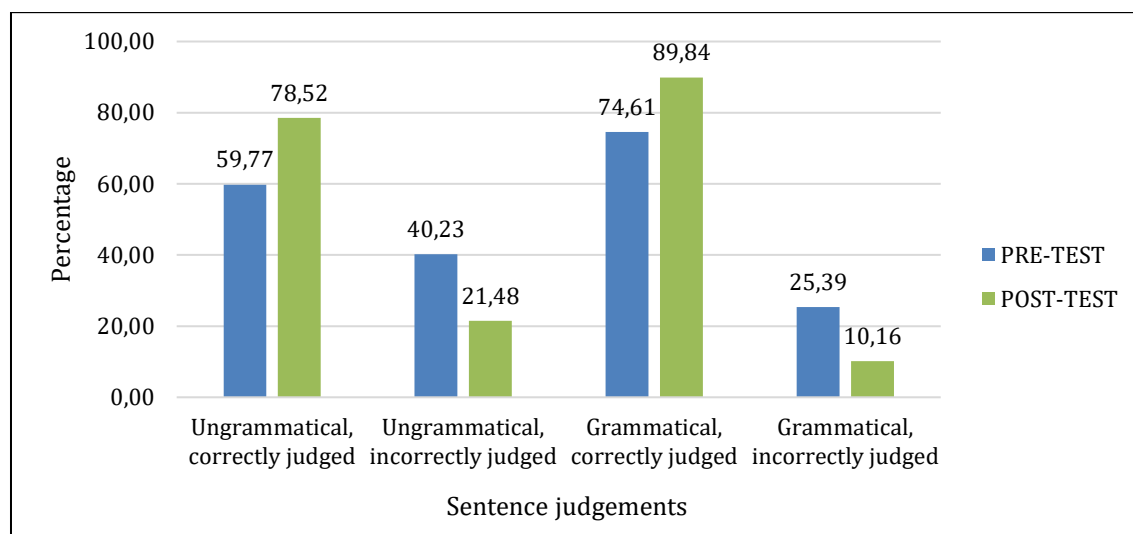
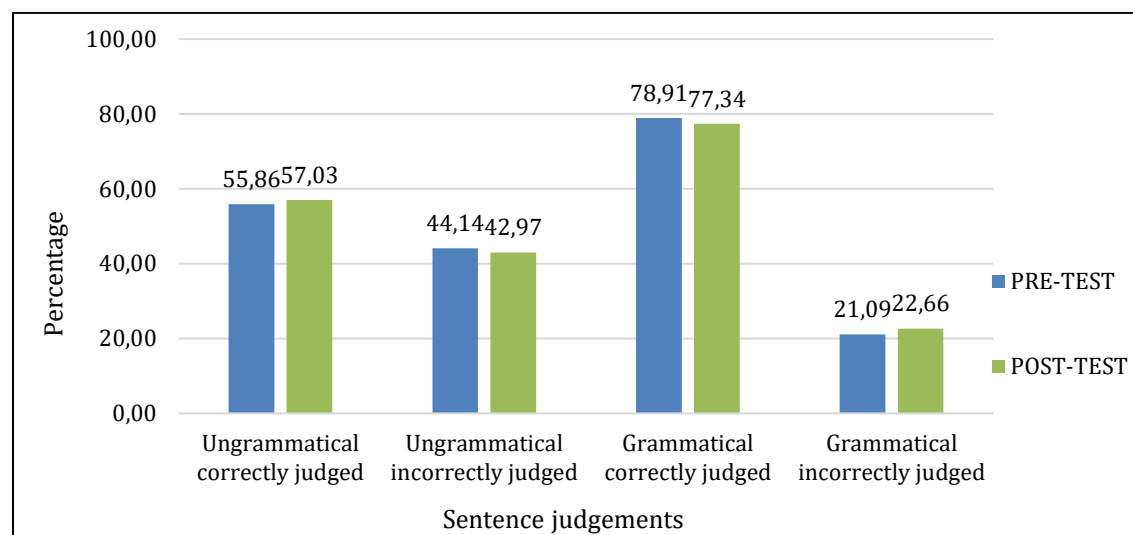


Figure 30 shows the test-group's correct and incorrect judgement of sentences in all four subject-verb constructions. For the ungrammatical sentences, there was an improvement in correct judgements from the pre-test to the post-test. In the pre-test, 59,77% of the ungrammatical sentences were correctly judged, while in the post-test this number rose to 78,52%. This was an improvement of over 18%. The percentages for the incorrect sentences were 40,23% in the pre-test and 21,48% in the post-test. The test-group reached high accuracy in detecting ungrammatical sentences, but they did not reach target-like performance.

For the grammatical sentences, the score for correct judgements in the pre-test was at

high accuracy (74,61%). In the post-test, this increased to 89,84%, nearly target-like accuracy. The percentage of incorrect judgements thus declined from 25,39% in the pre-test to 10,16% in the post-test.

Figure 31: Control-group's sentence judgements in all constructions in both tests



Similarly, the percentages for the control-group is presented in figure 31. As the bars show, there are minor changes between the results in the pre-test and the post-test.

For ungrammatical sentences, the control-group seemed to judge sentences correct and incorrect almost half of the time. In the pre-test, they judged 55,86% correctly and 44,14% incorrectly. In the post-test, they judged 57,03% correctly and 42,97% incorrectly. The control-group performed with low to middle-level accuracy in detecting the ungrammatical sentences.

The grammatical sentences seemed less problematic than the ungrammatical sentences. In the pre-test, 78,91% of grammatical sentences were judged correctly, while 77,34% were judged correctly in the post-test. The control-group had higher accuracy in detecting grammatical sentences than ungrammatical sentences. However, they did not perform with a target-like performance.

5.5 Proficiency and improvements from pre-test to post-test

In table 13, all the participants in the test-group are listed. Each participant represents one line of data. The data presented is their proficiency score, percentage of correct answers of the subject-verb agreement constructions in the pre-test and post-test, and their improvement from the pre-test to the post-test in percentage.

Table 13: Data for the participants in the test-group

Participants' proficiency score (of 39)	% of correct answers agreement, pre-test	% of correct answers agreement, post-test	Improvement from pre-test to post-test in %
20	59,38	59,38	0
22	40,63	96,88	56,25
24	34,38	53,13	18,75
30	34,38	65,63	31,25
32	53,13	93,75	40,63
32	46,88	78,13	31,25
32	53,13	96,88	43,75
33	100	100	0
33	56,25	84,38	28,13
33	46,88	46,88	0
34	100	100	0
35	93,75	100	6,25
35	68,75	71,88	3,13
37	100	100	0
38	100	100	0
39	87,5	100	12,5

Table 13 provides some interesting findings. The participants with lower proficiency score (32 or less) seem to have improved more than the participants with a proficiency score of 33 or more. The participants with lower proficiency score have improved between 18,75% and 56,25%, whereas the participants with higher proficiency score have improved between 3,13% and 28,13%. Two of the participants did not improve between tests; this will be discussed in chapter 6.

For the participants with lower proficiency score, there is a change in their accuracy from the pre-test to the post-test. These participants have low to middle-level accuracy of subject-verb agreement in the pre-test, laying around 30% and 60% in correct judgements. In the post-test, they have improved their accuracy, with results ranging from middle accuracy to high accuracy and some perform at a target-like level.

The participants with higher proficiency score had higher accuracy in the pre-test,

ranging from high accuracy to target-like performance. Four participants judged all sentences correctly in the pre-test. In the post-test the high-proficiency group has also improved their accuracy, now ranging from high accuracy to target-like performance. Six participants judged all sentences correctly in the post-test.

6 Discussion

In this chapter, I discuss the results presented in chapter 5 against the backdrop of the research questions and predictions presented in chapter 3. As stated in chapter 3, the research questions and predictions are the following:

RQ1: Is subject-verb agreement in L2 English teachable for L1 Norwegian learners?

RQ2: Does grammar instruction have an effect on learning subject-verb agreement in L2 English for L1 Norwegian learners?

RQ3: Which of the subject-verb agreement constructions are more difficult to learn for L1 Norwegian learners of L2 English?

Prediction 1: Subject-verb agreement will be problematic for both the test-group and the control-group in the pre-test.

Prediction 2: Local subject-verb agreement will be less problematic than long-distance agreement for both the test-group and the control-group in the pre-test.

Prediction 3: Singular constructions in subject-verb agreement are less problematic than plural constructions for both the test-group and the control-group in the pre-test

Prediction 4: The test-group who will receive explicit grammar teaching and error correction, will perform better than the control-group in all subject-verb agreement constructions in the post-test.

Prediction 5: The instruction will have a better effect on the pupils with lower proficiency compared to the pupils with a higher proficiency score.

6.1 Prediction 1: Subject-verb agreement will be problematic for both the test-group and the control-group in the pre-test

Prediction 1 is borne out because, in the pre-test, neither the test-group nor the control-group score above target-like performance (90% accuracy) in any of the four subject-verb agreement constructions (see figure 15). Thus, the results of the present study are in line with the previous findings in Jensen (2016), Jensen (2017), Jensen et al. (2019), and Garshol (2019).

However, the control-group judged the sentences with high accuracy in two

constructions (local agreement singular and long-distance agreement singular). The remaining scores for both groups vary between low to middle accuracy, which suggests that subject-verb agreement is problematic at various degrees for the participants. As all four structures are problematic for both the test-group and the control-group, the participants' performance is non-target-like yet at the age of 16.

The results also indicate that detecting the errors in ungrammatical sentences is a more difficult task than judging the grammatical sentences. This is in line with previous findings reported in Jensen (2016). Following White (1991) and Hirakawa, Shibuya, and Endo (2018), I suggest that this may be due to the lack of negative evidence in L2 English classroom exposure. Further research on grammar instruction in Norway is needed to investigate the role of negative evidence in L2 teaching and learning.

Overall results reveal that both participant groups behave rather similarly in both the proficiency test and the pre-test. As there is no systematic research done on English grammar instruction in Norway (Garshol 2019), it is difficult to say something about the previous instruction the participants have received. The similar results for both groups indicate that the participants in this study have received much of the same instruction earlier in their education, and often there is a local standard with regards to the curriculum (Utdanningsdirektoratet 2016).

6.2 Prediction 2: Local subject-verb agreement will be less problematic than long-distance agreement for both the test-group and the control-group in the pre-test

The results in the pre-test do not confirm prediction 2. The test-group's scores for the local and long-distance constructions are very similar; 73% in both singular constructions, versus 62% in local plural and 61% in long-distance plural.

The control-group's scores are also similar (see figure 15). Thus, the results of the present study are not entirely in line with the previous findings in Bock and Miller (1991), Jensen (2016), Jensen et al. (2019), and Garshol (2019), where long-distance agreement was found to cause more problems than local agreement (cf. e.g. Jensen 2016:96)

Interestingly, the control-group showed a more significant difference between the local and long-distance constructions, but only in the plural constructions (81% in both singular constructions, versus 65% in local plural and 42% in long-distance plural). This leads me to argue that the difficulty lies with the second variable, singularity/plurality - and not

with the distance to the subject.

In sum, the results from the present study do not support prediction 2, as the participants' accuracy rates are not higher in the local constructions than they are in the long-distance constructions. I suggest that the differences in accuracy rates are due to the singularity/plurality variable, discussed in section 6.3 below.

6.3 Prediction 3: Singular constructions in subject-verb agreement are less problematic than plural constructions for both the test-group and the control-group in the pre-test

Prediction 3 is borne out because, in the pre-test, both groups have lower accuracy scores in the plural constructions than in the singular constructions (see figure 15). Thus, the results of the present study are in line with the previous findings in Jensen (2016) and Jensen et al. (2019). However, both these previous studies found that local agreement with plural subjects and long-distance agreement with singular subjects should be equally problematic. The present study does not support these findings, as both groups have fewer problems with long-distance agreement with singular subjects than with local agreement with plural subjects.

Furthermore, Jensen (2016:96) argued that local agreement and long-distance agreement seem to be equally problematic is because it includes two variables: distance and singularity/plurality. “[...] plural subjects generate more errors with agreement than singular subjects, whereas long-distance agreement cause more problems than local agreement”. The results from the test-group of the present study support this. As there only are small differences between the local and the long-distance constructions, it seems that the two variables of distance and singularity/plurality are equally problematic.

In both singular constructions, the control-group performs with near-target-like accuracy (81%), while the test-group performs with high accuracy (73%). In the plural constructions, the test-group performs with a stable, mid-level accuracy (61% and 62%), while the control-group performs at a low to mid-level accuracy (42% and 65%). The reduction in both groups' accuracy from singular constructions to plural constructions provides evidence that singular constructions are less problematic than plural constructions, but the present study does not provide strong evidence of which plural construction that is most problematic. Both groups show lower accuracy in the plural constructions, but only the control-group shows a significant difference between local agreement with plural subjects and

the long-distance agreement with plural subjects.

The present study does not provide as clear evidence on the difficulty of singularity/plurality in agreement constructions as previous studies do. Thus, my results bring with it an ambiguity, as long-distance agreement with singular subjects seems to be as easy as local agreement with singular subjects. Besides, there is no clear evidence that long-distance agreement plural is more difficult than local agreement with plural subjects: the test-group scores with nearly the same accuracy, while the control-group does not.

Although the results are not perfectly clear when looking at the difficulty of each of the constructions, the results support Prediction 3, i.e. plural constructions are more difficult than singular constructions.

6.4 Prediction 4: The test-group will perform better than the control-group in all subject-verb agreement constructions in the post-test

Prediction 4 is partially confirmed because, in the post-test, the test-group performed better than the control-group in three of the four subject-verb constructions. In the two local constructions, the test-group showed significant improvement compared to the results of the control-group in the post-test. In long-distance with plural subjects, the test-group had significant improvements compared to their results in the pre-test. Thus, the results of the present study are in line with the previous findings in Hirakawa et al. (2018), who found explicit instruction the most effective instruction method when teaching grammar (in their case: adjective order in L2 English).

When comparing the results in all the four subject-verb agreement constructions together, the test-group improved significantly compared to the control-group ($p < 0,05$). However, if one examines the four constructions individually, the test-group only had significant improvement ($p < 0,05$) compared to the control-group in the local agreement constructions.

In the local agreement with singular subjects construction, the test-group improved by over 16%. In the post-test, the test-group performed with near-target-like accuracy (89%). This construction had the third best improvement after the intervention. In the local agreement with plural subjects construction, the participants had the highest improvement between tests (30%), and in the post-test, they performed with target-like accuracy (91%).

Session 1 of the intervention focused on the local agreement structure, with equal

focus given to the singular and plural constructions. The local agreement structure is less complex, and I believe that the explicit grammar teaching in the intervention provided the participants with knowledge of this structure. This is because the local agreement structure includes less distance between the subject and the verb, there is no (X) element to intervene, and thus it is easier to focus on the 3SG *-s*. I would like to highlight the ‘card-game’ and ‘describe the cartoon’ as efficient tasks when working with this agreement structure. I believe, based on the participants’ responses (see section 5.3.1), that the explicit instruction together with motivating and engaging tasks, is the reason for the improvements in the local agreement constructions.

In the long-distance agreement with plural subjects construction, the test-group improved by nearly 18%. The test-group performed with high accuracy (79%) in the post-test. The improvement is significant if one looks at the pre-test and the post-test isolated, but the improvement is not significant compared to the control-group’s improvement. The last construction, long-distance agreement with singular subjects, provides interesting results. This construction separated itself from the others, as the test-group had no significant improvement between the pre-test and the post-test and stayed stable with an accuracy score around 75%.

The sentences testing long-distance agreement were all designed with opposite number of the head nouns and local nouns, to find out if agreement attraction is a problem for Norwegian learners of L2 English (see section 4.2.3 for further information on the sentences).

Interestingly, the participants seem to have acquired the plural structure, as they improved between tests with nearly respectively 30% in the local agreement construction and 18% in the long-distance agreement construction. Jensen et al. (2019) found that L2 learners have more trouble rejecting the 3SG *-s* in sentences like ‘*the kids with the red bike **plays** in the garden*’ than in sentences like ‘*the teacher with black shoes **walk** to work every day*’. (Jensen et al. 2019:19). The present study has the opposite findings, as long-distance agreement with plural subjects is found less problematic than long-distance agreement with singular subjects. I would like to suggest that agreement attraction is a probable explanation for why long-distance agreement with singular subjects is more problematic to acquire. Furthermore, I suggest that the teaching intervention did not give good enough instruction for this construction.

The intervention was executed with the same amount of time and focus on both the local and long-distance constructions. I could have planned more time for the long-distance agreement construction, as this is a more complex structure and thus might be more difficult to learn. Furthermore, the intervention may not have emphasised agreement attraction, and the

input could have been more tailored towards this problem.

I have identified part 2 in session 2 of the intervention as one of the parts that could have been better planned. Even though the pupils were more active and used the blackboard, I suggest that this part included few examples. Ideally, this part should have been expanded and included more examples, including more negative evidence. The two tasks that were submitted in session 2 included few errors on subject-verb agreement. However, part 5, the writing task, did not support the learning for long-distance agreement in the way I had hoped. This means that part 4, the ‘card-game’ was the only task where long-distance agreement was in focus. As it is a more complex structure, this task may not have provided sufficient instruction to ensure full mastery of the long-distance agreement construction.

6.5 Prediction 5: The instruction will have a better effect on the pupils with lower proficiency compared to the pupils with a higher proficiency score.

Prediction 5 is confirmed by the results of the present study, as results from the post-test show that the pupils with lower proficiency scores improved more between tests than the pupils with higher proficiency scores (the lower proficiency group improved with 18% to 56%, while the high proficiency group improved with 3% to 28%).

The Oxford proficiency test (presented in section 4.2.1) does not focus on subject-verb agreement, but on English grammar overall. However, learners’ overall grammar knowledge can be transferred to knowledge specifically on subject-verb agreement. Pupils with lower proficiency are expected to have less knowledge of subject-verb agreement in the pre-test, and thus have a higher chance for more correct answers after the instruction. Pupils with higher proficiency are expected to have more knowledge in the pre-test and thus have smaller room for improvement between tests.

Table 13 (presented in section 5.5) illustrates the test-group’s proficiency and percentage of correct answers in the subject-verb agreement constructions. This table lists each participant’s proficiency, the percentage of correct answers in the pre-test and the post-test, together with the improvement in percentage. None of the 16 participants had a decline in correct answers from the pre-test to the post-test. The test-group can be divided into two sub-groups: the lower-proficiency group (proficiency score of 32 or less), and the high-proficiency group, (proficiency score of 33 or more).

The participants in the low-proficiency group indeed show the most significant improvements from the pre-test to the post-test. There are seven participants in this group, and

six of them had a considerable improvement in the increase in accuracy (18% to 56%).

The participants in the high-proficiency group did not improve their accuracy as much between the tests. Four of the participants scored 100% correct in the pre-test, and thus there is no room for improvement in the post-test. The same four participants scored 100% in the post-test as well. Four participants in this group improved on a smaller scale (from 3% to 28%).

Two participants, one in each proficiency group, did not improve from the pre-test to the post-test. One scored with 47% accuracy, the other one with 59%. Both these participants had learning difficulties, and this might be a reason for their lack of improvement. I know that their answers on the pre-test and post-test are not entirely identical, as both participants have improved in the filler-constructions. However, in the subject-verb agreement-constructions, they still score with an identical accuracy rate in the post-test. Garshol (2019) found in her study that learning-related diagnoses can contribute to errors, but she could not conclude with anything as the sample size was too small. The same applies here. The links between learning difficulties and language acquisition need to be further investigated, as small research samples suggest that there is a relationship between the two.

6.6 Teachability and learnability of subject-verb agreement

Teachability and learnability are the topics of RQ1 and RQ2, and both research questions will be discussed in this section. RQ1 asks: *Is subject-verb agreement in L2 English teachable for L1 Norwegian learners?* RQ2 asks: *Does grammar instruction have an effect on learning subject-verb agreement in L2 English for L1 Norwegian learners?*

Neither the test-group nor the control-group scored with target-like accuracy in any of the four subject-verb agreement constructions in the pre-test. The accuracy scores varied between 40% and 81%. As discussed in the sections above, the participants had various difficulty with the four structures, but they were not target-like in the pre-test; thus it is room for improvement to see if the instruction was effective.

Local agreement with singular subjects

The test-group had a significant improvement in accuracy score from the pre-test to the post-test in this construction, with an increase of 16% (see figure 16 in section 5.4.1). Furthermore, the test-group's improvement is significant compared to the control-group's results, as the control-group had a small deterioration between the tests. The results indicate that the test-group has improved their knowledge of local agreement with singular subjects. In the pre-test,

the test-group judged 73% of the sentences in this construction correct. In the post-test their correct judgements rose to 89%, which is nearly target-like accuracy.

The test-group improved in judging both grammatical and ungrammatical sentences in this construction (see figure 17). In the post-test, the test-group judged grammatical sentences with target-like accuracy (92%), and ungrammatical sentences with near target-like accuracy (84%). The improvement in accuracy scores indicates that the pupils in the test-group have improved their knowledge of local agreement with singular subjects. I consider this improvement between the tests as a sign of learning, and it points to an increase in linguistic knowledge and competence.

The insignificant change from pre-test to post-test (81% to 77%) in the control-group indicates no change in the control-group's knowledge of this agreement construction. The control-group's accuracy scores for judging sentences were stable compared to the test-group's improvements (see figure 18).

In other words, the results support that local agreement with singular subjects is learnable and teachable, as the test-group received explicit instruction and significantly improved their accuracy score compared to the control-group who did not receive instruction and did not improve at all.

Local agreement with plural subjects

The test-group had a significant improvement between tests in this construction, with nearly 30% more correct judgments in the post-test (see figure 19). The test-group's results are significant compared to the results of the control-group. In the pre-test, the test-group judged the sentences with mid-level accuracy (62%), in the post-test, they judged sentences with target-like performance (91%). This 30% increase in correct answers suggests that the instruction was effective for learning this construction. This improvement in accuracy scores indicates that the pupils in the test-group have increased their knowledge of local agreement with plural subjects. I consider this improvement between tests a sign of learning, as it points toward an increase in linguistic knowledge and competence.

The test-group improved their judgments of both grammatical and ungrammatical sentences in the post-test (see figure 20). In the post-test, the test-group judged grammatical sentences with target-like accuracy (98%), and ungrammatical sentences with near target-like accuracy (84%)

The insignificant change from pre-test to post-test for the control-group (65% to 67%), suggest that the control-group did not acquire any new knowledge for this agreement

construction. The control-groups judgment of sentences was relatively stable compared to the significant changes by the test-group (see figure 21).

To summarise, the results lead to support both learnability and teachability for this construction. The test-group was given explicit instruction and had a significant improvement, reaching target-like accuracy, compared to the control-group that was not taught in agreement.

Long-distance agreement with singular subjects

The test-group did not have any significant improvements in this construction (see figure 22). Both groups scored with a stable accuracy in both tests. Whereas the test-group had a small improvement from 73% correct answers in the pre-test to 77% correct answers in the post-test, the control-group had a small deterioration from 81% in the pre-test to 74% in the post-test. Although we see some improvement, it is not enough to make a statistically significant improvement for the test-group.

The lack of significant improvement for the test-group, suggests that the instruction did not affect this agreement construction. As previously discussed in section 6.4, the lack of significant findings may be caused by agreement attraction (Bock and Miller 1991; Bock 1995). The intervention may not have included enough instruction on this phenomenon; for instance, it could have included more negative evidence in the long-distance agreement constructions. Furthermore, the long-distance constructions are more complex. However, in the intervention, the participants received the same amount of instruction in both local and long-distance agreement. Perhaps session 2, focusing on the long-distance agreement could have been planned to include more time to work with the more complex structure.

Based on the results from this experiment, long-distance agreement with singular subjects may not be teachable or learnable. However, as there are clear findings in the three other constructions, I argue that the lack of improvement in this construction is due to flaws in the intervention, for example missing information and instruction, and lack of negative evidence in this construction. Furthermore, the long-distance constructions are more complex than the local constructions. They include more elements than the local constructions, and the critical element is the distance between the head noun and the verb. The more complex structures might require more instruction and more negative evidence and tailored input. If this study is to be replicated or continued, I suggest that the intervention is altered to focus more on the long-distance constructions, and thus will give more precise results than provided in the present study.

Long-distance agreement with plural subjects

The test-group had significant improvements between tests in this construction, with roughly 18% increase in correct answers in the post-test (see figure 24). They improved from mid-level accuracy in the pre-test (61%) to high accuracy in the post-test (79%). However, this improvement is only significant compared to their results in the pre-test and not compared to the control-group's results in the post-test. The improvement between tests indicates that the test-group has improved their knowledge of long-distance agreement with plural subjects. Their 18% increase in accuracy suggests that the instruction was effective for learning this construction. This improvement in accuracy scores indicates that the pupils in the test-group have increased their knowledge of long-distance agreement with plural subjects. I consider this improvement between tests a sign of learning, as it points toward an increase in linguistic knowledge and competence.

The test-group improved their accuracy scores in judging both ungrammatical and grammatical sentences. In the post-test, the test-group judged both grammatical sentences and ungrammatical sentences with high accuracy (80% and 78% respectively).

The control-group had a small improvement from the pre-test to the post-test (8%), which is not enough to be statistically significant. Their judgment of grammatical and ungrammatical sentences was relatively stable compared to the significant changes by the test-group (see figure 27).

Based on these results, I argue that long-distance agreement with plural subjects is both learnable and teachable, as the test-group improved after the teaching intervention. The test-group did not reach target-like accuracy in this construction, but they improved their accuracy between tests. The control-group was not taught in agreement and did not improve significantly. The results thus indicate that long-distance agreement with plural subjects is both learnable and teachable.

Summing up

In both local agreement constructions, the test-group improved to reach target-like accuracy after the teaching intervention. In the long-distance agreement with plural subjects construction, the test-group improved from mid-level accuracy to high accuracy, but they did not reach-target-like performance. In the long-distance agreement with singular subjects construction, there were no significant improvements, but I argue this is caused by flaws in the intervention, and not the structure itself. Section 6.5 discussed if the instruction had more effect on pupils with lower proficiency scores than on pupils with higher proficiency scores.

The results from the AJTs confirm this: explicit instruction has a better effect on pupils with lower proficiency.

This section has shown that the results confirm RQ1: *Is subject-verb agreement in L2 English teachable for L1 Norwegian learners?* and RQ2: *Does grammar instruction have an effect on learning subject-verb agreement in L2 English for L1 Norwegian learners?* because in three of the four constructions, the test-group improved significantly after receiving grammar instruction.

6.7 Which of the subject-verb constructions are more difficult to learn for L1 Norwegian learners of L2 English?

This section discusses RQ3: *Which of the subject-verb constructions are more difficult to learn for L1 Norwegian learners of L2 English?* To answer this research question, I will discuss the four constructions according to the variables of distance (local and long-distance) and singularity/plurality (singular and plural subjects).

Local agreement versus long-distance agreement

The results from the present study do not entirely support previous research (see section 6.2). The test-group showed no significant improvements between the local and long-distance constructions in the pre-test. For the control-group, there were some differences, but I argue that these are linked to the number of the subject (singularity/plurality) and not to the distance between the subject and the verb.

The test-group improved significantly ($p < 0,05$) compared to the control-group in the two local constructions. These results suggest that the intervention had the best effect for the singular constructions, as the participants gained very high accuracy in the post-test in these two constructions (89% in the singular construction and 91% in the plural construction). In other words, long-distance agreement is suggested to be more problematic to learn. The test-group improved less between tests and their accuracy in the post-test is lower in the long-distance constructions (77% and 79%).

I have previously argued that the results in the present study may be related to flaws in the intervention (see section 6.6). I used the same amount of time to focus on the local constructions as the long-distance constructions, and the latter are more complex structures than the first. Furthermore, I may have used more negative evidence to highlight the long-distance structures and focused more on agreement attraction. However, even though the participants did not reach target-like accuracy, 75-80% accuracy is considered high. This

research indicates that subject-verb agreement is teachable and learnable, but I propose further investigations to find out whether a more tailored intervention would better affect the learning of long-distance agreement as well. With instruction that focuses more on the long-distance agreement constructions, one might get different results.

The results from this experiment suggest that local agreement constructions are less problematic to learn than long-distance agreement.

Singular subjects versus plural subjects

Results from the pre-test showed that plural constructions were more difficult than singular constructions (see section 6.3). However, my findings do not entirely support previous research, as the participants in the present study found long-distance agreement with singular subjects to be more problematic than local agreement with plural subjects. Jensen (2016) and Jensen et al. (2019) both found that these constructions were equally problematic.

I have previously stated that the plural constructions had the most significant improvements between the pre-test and the post-test (see section 6.4). In local agreement with plural subjects, the test-group improved by nearly 30% (62% to 91%). In long-distance agreement with plural subjects, the test-group improved by 18% (61% to 79%). The participants reached target-like performance in local agreement with plural subjects (91%), and high accuracy in long-distance agreement with plural subjects (79%).

These results suggest that the plural constructions are easier to improve in, but the starting point for the plural constructions was 10% lower than the singular constructions in the pre-test (see figure 28).

The post-test results can be a result of the intervention and the received instruction, but other factors may have played a part in the post-test results. Many factors play in on one's day at the school (i.e. time of the day of the teaching, health, exercise) and these factors vary from day to day. Such factors may have affected the pupils differently during the two different test-days, i.e. their results could be affected by their mood that day. Besides, the pupils may have received input of the constructions outside of the intervention. For example, many of the pupils participated in online gaming and the communication in these games may have provided them with input on subject-verb agreement unconsciously.

I propose further research on this topic to be able to conclude on which of the constructions that are more difficult to learn. I suggest more intervention studies, testing the teachability of subject-verb agreement. The instructions should include more tailored input on the differences between singular and plural constructions and more focus on the long-distance

agreement constructions as the distance between the head noun and verb causes problems with agreement attraction. Intervention studies replicate the naturalistic setting in the classrooms, which is the primary source for grammar instruction for Norwegian learners of L2 English. In this way, the results from research will be relevant for teachers and thus easier to implement in the instruction. Further research is necessary as the present study is too small to make anything but suggestions.

Summing up

For the local constructions, the test-group reached near-target-like and target-like accuracy (89% with singular subjects and 91% with plural subjects), while for the long-distance constructions their accuracy is a bit lower (77% with singular subjects and 79% with plural subjects).

Based on the results of this study, I propose the long-distance agreement constructions as more difficult to learn than the local agreement constructions. In addition, the trend is that after the teaching intervention, the participants in the test-group demonstrate a higher accuracy in the plural constructions than in the singular constructions. The results suggest that the local agreement constructions are easier to learn than long-distance constructions and that plural constructions are easier to learn than singular constructions.

7 Pedagogical implications of this study

The results from the present study show that grammar instruction is effective when learning subject-verb agreement, at least there is a short-time effect.

Based on feedback from the pupils during the intervention, they preferred tasks that were new to them, and not traditional tasks like writing texts, and ‘fill in the blanks’. The ‘card-game’ was the activity that the pupils preferred and enjoyed the most. The sentences handed in after playing the game suggest that it is also an efficient task, as the pupils handed in more sentences than required and there were few errors in the material they handed in. They also responded well to the ‘describe the cartoon’ task, where they were very interested and eager and handed in texts with few subject-verb agreement errors. These two tasks play on different learning strategies. The ‘card-game’ lets the pupils learn together and is a more tactile way of working. ‘Describe the cartoon’ provides stimuli that can be adapted to the learners’ interests, and sets the frame of the task, making the writing easier to do. Every individual learner may prefer different learning styles and strategies and this study has provided evidence that different tasks is helpful when learning grammar. The tasks used in the intervention are very adaptable to other grammatical structures as well and should be seen as pedagogical tools for grammar instruction.

The results also suggest that local agreement is less problematic than long-distance agreement, and that the latter, more complex structure may require more instruction to be acquired at the same level as local agreement. The results also indicate that there is a difference in difficulty of singular and plural structures, and I argue that English teachers should focus more on the differences between singular and plural sentences, to highlight the differences when it comes to singularity/plurality.

The present study has used a new methodology, combining acceptability judgment tasks and a teaching intervention to give new insights to the fields of linguistics and pedagogics. I suggest that this is a methodology that should be used in further research, as it provides the researcher with a lot of data, both in linguistics and pedagogics. These two fields are both important for teacher students, and the bridge between the fields should be explored further, for example using the methodology used in this experiment.

8 Possible study limitations and suggestions for further research

The lack of a delayed post-test

One of the major flaws with this study is that it does not include a delayed post-test. A delayed post-test is very important in order to show whether the intervention has had a long-term effect, indicating that the participants indeed did acquire the subject-verb agreement structure. Unfortunately, the time frame of my MA programme did not allow me to conduct a delayed post-test. This means that I have no knowledge of the participants' long-term effect of the instruction given, and I have no evidence whether the participants did acquire the subject-verb agreement structures or not.

Should this study be copied and further investigated, I suggest that a delayed post-test should be included in the methodology, to provide evidence of the intervention's long-term effect.

Naturalistic setting

This study was conducted using a naturalistic setting. One random English class in a random Norwegian upper secondary school was chosen to participate in the study. There are 32 participants, split into two groups of 16 participants in each group (test-group and control-group). The two groups were already intact when I arrived at the school to conduct the study. This means that there are relationships and pre-existing differences that I could not control during the study. However, this is what a naturalistic setting means; the researcher cannot control all factors. Furthermore, I argue that the research is more relevant for teachers when conducted in the naturalistic setting.

Thirty-two pupils are not a large participant pool, but I do not consider the low number of participants as a limitation. This is the first study on the topic, and the results should be validated using a larger group. The present study is set in a naturalistic setting, and due to strict rules on sizes of classes, the number of participants will be small, unless one can test several classes. The present study is executed as close to a real classroom situation as possible. The core of this master's thesis is to investigate if grammar instruction for subject-verb agreement is relevant in classroom instruction, and the naturalistic setting is the best way to investigate this. Thus, it is authentic, and the teaching activities and methods used in the study are realistic, and all teachers may use these tools. This authenticity to the teaching

activities and methods makes this research more useful for teachers in the Norwegian school system.

Rapport between the pupils and me

In this experiment, I was in a new class and had no prior relationship with the pupils. In a study on teaching EFL grammar, Benitez-Correa et al. (2019) emphasise the importance of rapport between the teacher and students in the English classroom. Their findings agree with Paterson (2005) who underlines the link between rapport and motivation. The present experiment was short (four meetings in three weeks), and the rapport and dynamics between the pupils and me can, therefore, be a source of error. However, right from the start, I felt that the dynamics between the class and me were good. The milieu in the classroom felt good. We had humour and fun, and all the pupils felt safe enough to participate in the instruction, i.e. no one was afraid of answering my questions, even though they might get it wrong.

Even though it is hard to start with grammar instruction in a new class, and that I had no prior relationship with the pupils, I do not consider it a limitation in this study. We quickly developed a relationship, and the milieu in the classroom was good and and felt safe for learning.

Instruction in sentence structure may affect the answer in the two filler-constructions

During the intervention, a simple introduction to sentence structure is taught. This focused on determining the subject (S), the verbal (V) and the object (O) of sentences. In session two we also focused on the intervening element (X) in the sentences to create long-distance agreement. All examples were in the S(X)VO order. None of the sentences included adverbials, which are tested in the filler-constructions. However, because the pupils did exercises with sentence structure and built sentences (i.e. in the ‘card-game’), there is a possibility that this might have influenced the results in the filler-constructions from the pre-test to the post-test.

However, this was not a focus point in the intervention, and any input and learning that has affected the filler-constructions must be seen as a positive bi-effect of the instruction, not a limitation, as this is part of what research in a naturalistic setting may affect.

9 Conclusion

In this thesis, I have tested the acquisition of L2 English subject-verb agreement by Norwegian learners. According to previous studies, this is a problematic feature in L2 English acquisition, and I used the previous studies to make predictions on which constructions of subject-verb agreement are more problematic. I planned and conducted a teaching intervention to investigate if subject-verb agreement is teachable and learnable and if there are any differences in the acquisition of the four agreement constructions.

Previous studies have found that local agreement is less problematic than long-distance agreement (Ocampo 2013; Jensen 2016), and that singular constructions were less problematic than plural constructions in both local agreement and long-distance agreement (Jensen 2016). The present study does not entirely support the previous studies.

The present study consisted of a proficiency test, two acceptability judgment tasks executed before (pre-test) and right after (post-test) the teaching intervention. The teaching intervention consisted of two 90-minute sessions with grammar teaching on sentence structure and agreement rules. The proficiency test was used to investigate the participants' proficiency level, and if proficiency plays a role in learning subject-verb agreement. In the two AJTs, the participants were asked to rank sentences as acceptable or unacceptable.

RQ1 asks: *Is subject-verb agreement in L2 English teachable for L1 Norwegian learners?* and RQ2 asks: *Does grammar instruction have an effect on learning subject-verb agreement in L2 English for L1 Norwegian learners?* The test-group, who participated in the teaching intervention, improved significantly in three of four subject-verb agreement constructions. These improvements indicate that subject-verb agreement is indeed teachable and learnable by Norwegian learners of L2 English. However, as previously discussed, the intervention must be detailed and well planned. Since one of the constructions (long-distance agreement with singular subjects) was not affected by the instruction, I argue that the intervention was not executed well enough and should have included more input and work with the long-distance constructions. As the control-group did not improve between the two tests, in contrast to the test-group which received grammar instruction, I propose that grammar instruction does have an effect on learning L2 English subject-verb agreement.

RQ3 asks: *Which of the subject-verb constructions are more difficult to learn for L1 Norwegian learners of L2 English?* The present study found that long-distance agreement constructions were more difficult to learn than the local agreement constructions. Furthermore, the test-group had higher accuracy in the plural constructions than in the

singular constructions, suggesting that the plural constructions were less problematic than the singular constructions. At this point, the present study separates itself from the previous studies and suggests the difficulty with singularity/plurality of subjects should be a topic for further investigations where the intervention method should be used.

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Appendix 1- Oxford Proficiency Test

PROFICIENCY TEST

Participant code:

Instructions: Please complete the sentences by selecting the best answer from the available answers below. You can select by underlining or making an X next to your choice.

1) Water _____ at a temperature of 100° C.

is to boil is boiling boils

2) In some countries _____ very hot all the time.

there is is it is

3) In cold countries people wear thick clothes _____ warm.

for keeping to keep for to keep

4) In England people are always talking about _____.

a weather the weather weather

5) In some places _____ almost every day.

it rains there rains it raining

6) In deserts there isn't _____ grass.

the some any

7) Places near the Equator have _____ weather even in the cold season.

a warm the warm warm

8) In England _____ time of year is usually from December to February.

coldest the coldest colder

9) _____ people don't know what it's like in other countries.

The most Most of Most

10) Very _____ people can travel abroad.

less little few

11) Mohammed Ali _____ his first world title fight in 1960.

has won won is winning

12) After he _____ an Olympic gold medal, he became a professional boxer.

had won have won was winning

13) His religious beliefs _____ change his name when he became a champion.

have made him made him to made him

14) If he _____ lost his first fight with Sonny Liston, no one would have been surprised.

has would have had

15) He has traveled a lot _____ as a boxer and as a world-famous personality.

both and or

16) He is very well known _____ the world.

all in all over in all

17) Many people _____ he was the greatest boxer of all time.

is believing are believing believe

18) To be the best _____ the world is not easy.

from in of

19) Like any top sportsman, Ali _____ train very hard.

had to must should

20) Even though he has now lost his title, people _____ always remember him as a champion.

would will did

Read the following passage about the history of aviation and choose the best answer for each blank. Note that it is a continuous story.

21) The history of _____ is

airplane the airplane an airplane

22) _____ short one. For many centuries men

quite a a quite quite

23) _____ to fly, but with

are trying try had tried

24) _____ success. In the 19th century a few people

little few a little

25) succeeded _____ in balloons. But it wasn't until

to fly in flying into flying

26) the beginning of _____ century that anybody

last next that

27) _____ able to fly in a machine

were is was

28) _____ was heavier than air, in other words, in

who which what

29) _____ we now call a 'plane'. The first people to achieve

who which what

30) 'powered flight' were the Wright brothers. _____ was the machine

His Their Theirs

31) which was the forerunner of the Jumbo jets and supersonic airliners that are _____ common

such such a some

32) sight today. They _____ hardly have imagined that in 1969,

could should couldn't

33) _____ more than half a century later,

not much not many no much

34) a man _____ landed on the moon.

will be had been would have

35) Already _____ is taking the first steps towards the stars.

a man man the man

36) Although space satellites have existed _____ less

since during for

37) than forty years, we are now dependent _____ them for all

from of on

38) kinds of _____. Not only

informations information an information

39) _____ being used for scientific research in

are they they are there are

40) space, but also to see what kind of weather _____.

is coming comes coming

Appendix 2 – Scoring sheet for the pre-test

SCORING SHEET

Participant code:

	RIKTIG	GALT	Code		
Ex. 1	X				
Ex. 2		X			
1			C4U3		
2			C4U2		
3			C1G3		
4			C3G2		
5			C2G3		
6			C4U4		
7			C3G3		
8			C3G1		
9			C6G3		
10			C5U4		
11			C6G2		
12			C2U2		
13			C6G1		
14			C2U1		
15			C5G1		
16			C1U1		
17			C2U4		
18			C4G2		
19			C4U1		
20			C5G4		
21			C1U2		
22			C3U3		
23			C2G4		
24			C6U3		
25			C4G4		

26			C5G2		
27			C1U3		
28			C2G1		
29			C3U2		
30			C5U3		
31			C2G2		
32			C6G4		
33			C3G4		
34			C6U2		
35			C5U1		
36			C4G1		
37			C6U1		
38			C5U2		
39			C4G3		
40			C1U4		
41			C2U3		
42			C1G2		
43			C5G3		
44			C3U4		
45			C6U4		
46			C1G4		
47			C3U1		
48			C1G1		

Appendix 3 –Scoring sheet for the post-test

SCORING SHEET

Participant code:

	RIKTIG	GALT	Code		
Ex. 1	X				
Ex. 2		X			
1			C1G4		
2			C6U1		
3			C6G1		
4			C5U1		
5			C1U3		
6			C5U4		
7			C2G2		
8			C3G3		
9			C4G2		
10			C1U4		
11			C6U2		
12			C3U4		
13			C4G1		
14			C2U3		
15			C3G2		
16			C2G4		
17			C1G3		
18			C4U2		
19			C6U3		
20			C5G4		
21			C2U2		
22			C5G3		
23			C1U1		
24			C5U2		
25			C2G1		

26			C2U4		
27			C6G4		
28			C5G1		
29			C1G2		
30			C6G2		
31			C3U1		
32			C4U1		
33			C4G4		
34			C3G4		
35			C5U1		
36			C4G3		
37			C6G1		
38			C4U4		
39			C5G2		
40			C3U2		
41			C6U4		
42			C2U1		
43			C3G1		
44			C1G1		
45			C2G3		
46			C3U3		
47			C4U3		
48			C1U2		

Appendix 5 – The sentences

Construction	Grammatical	Ungrammatical
Main clauses with local agreement, singular subjects	Lisa likes to read books about horses	*Lisa like to read books about horses
	The boy takes the bus to school every day	*The boy take the bus to school every day
	The dog runs around the house every morning	*The dog run around the house every morning
	The teacher talks about mathematics and numbers	*The teacher talk about mathematics and numbers
Main clauses with local agreement, plural subjects	The kids like to play in the park every weekend	*The kids likes to play in the park every weekend
	The teachers give their students a lot of homework	*The teachers gives their students a lot of homework
	The cats play with the yellow and green ball	*The cats plays with the yellow and green ball
	The students sit in the park after school	*The students sits in the park after school
Main clauses with long- distance agreement, singular subjects	The house with yellow and white doors looks nice	*The house with yellow and white doors look nice
	The teacher with black shoes walks to work every day	*The teacher with black shoes walk to work every day
	The boy with blue eyes seems very happy	*The boy with blue eyes seem very happy
	The girl with golden earrings takes the bus to school	*The girl with golden earrings take the bus to school

Main clauses with long-distance agreement, plural subjects	The boys in the black car look very scary	*The boys in the black car looks very scary
	The cats with long white fur drink milk every day	*The cats with long white fur drinks milk every day
	Those tourists with the heavy suitcase seem tired	*Those tourists with the heavy suitcase seems tired
	The kids with the red bike play in the garden	*The kids with the red bike plays in the garden
Non-subject initial declarative main clause (Fillers)	Last night the girl opened a present from her dad	*Last night opened the girl a present from her dad
	Yesterday the teacher looked angry all day long	*Yesterday looked the teacher angry all day long
	Last month the children baked some bread at school	*Last month baked the children some bread at school
	Today Maria ate lunch at two o'clock	*Today ate Maria lunch at two o'clock
Subject-initial declarative main clause (Fillers)	The girl always played soccer with her brother	*The girl played always soccer with her brother
	The children often walk to school together	*The children walk often to school together
	The mouse usually eats cheese for dinner	*The mouse eats usually cheese for dinner
	Sara only likes to go swimming alone	*Sara likes only to go swimming alone

Appendix 6 – Intervention draft

SESSION 1: LOCAL AGREEMENT 60+45 min

TIME	WHAT	HOW	WHY
5 min (slide 1+2)	Introduction	Goal for this session	To prepare pupils, catch their attention.
20 min (slide 3+4)	Errors from the pre-test Pupils explain why it is correct/ungrammatical	Examples on sheets and PP. Each pupil will be given their errors from the test. They should correct and explain these errors (use their personal code to make statistics) After 10-15 minutes we will discuss some errors all together with examples on the PP.	Individual work will hopefully make the pupils more comfortable to speak in front of the rest of the class for the last 5 mins.
15 min (slide 5-10)	Work with sentence structure, explicit rule-teaching with examples in PP Slide 10: link sentence structure with the agreement rule	PP-slides with rules and examples Examples of each category: First discuss in pairs, then all together	Meta-awareness, learn the rules of sentence structure and be able to judge what is the head subject
20 min (slide 11)	Task: S-V agreement card-game	In pairs. The pupils will create sentences based on the S-V-O elements (local agr). Write sentences down and after lunch	Let pupils work together, practice the rules, create knowledge.
10-15 min (slide 11)	Task: S-V agreement card-game	... let another pair judge them. All pairs will give example of sentences they have made in plenum afterwards	
25 min (slide 12)	Task: Describe actions in the cartoon	Pupils are given a list of verbs that occur in the video. They are to write sentences with local agreement (simple present) about what happens in the video. Individual work	To produce sentences with agreement – repetition of local agreement. Error correction when pupils correct each other sentences
5 min (slide 13)	Ending/outro	Goal for this session - did we reach the goals? - what have you learned? - feedback	To finish, summarise, make it clear for pupils what we have done

SESSION 2: LONG-DISTANCE AGREEMENT

60 + 60 min

TIME	WHAT	HOW	WHY
5 min (slide 1+2)	Introduction	Goal for this session	To prepare pupils, get their attention
10 min	Repetition	Talk about session 1	
20 min (slide 5)	Errors from the pre-test Pupils explain why it is correct/ungrammatical	Examples on sheets and PP. Each pupil will be given their errors from the test. They should correct and explain these errors (use their personal code to make statistics) → inductive method After 10-15 minutes we will discuss some errors all together with examples on the PP.	Individual work will hopefully make the pupils more comfortable to speak in front of the rest of the class for the last 5 mins.
20 min (slide 3+4)	Explicit rule-teaching (repetition) Sentence structure repetition	PP + examples from IEG-book	To make sure the pupils learn the rules of agreement. To make sure the pupils know how to find the head noun
10 min (slide 6+7)	Rule learning: long distance agreement	PP with examples	Meta-awareness, learn the rules of sentence structure and be able to judge what is the head subject
30 min (slide 8)	Task: S-V agreement card-game	In pairs. The pupils will create sentences based on the S-V-O elements (long-dist agr). Write sentences down and let another pair judge them Go through correct answers all together.	Let pupils work together, practice the rules, create knowledge.
15 min	Task: Writing in present simple	Write a text with present simple. Try to use other subjects than "I" - "A typical day in my life" - "My life 10 years from now"	To produce sentences with agreement
5 min	Ending/Outro	Goal for this session - did we reach the goals? - what have you learned? - feedback	To finish, summarise, make it clear for pupils what we have done

Appendix 7 – Sentences for the ‘card-game’

Local agreement singular

S He	V plays	O basketball
S She	V sings	O in a band
S Mia	V looks	O sad
S Lisa	V enjoys	O painting
S The woman	V loves	O to swim
S The girl	V walks	O to school
S The dog	V barks	O all day
S The boy	V eats	O apples

Local agreement plural

S Peter and Thomas	V play	O football
S Anna and Bonnie	V sing	O in the choir
S The kids	V look	O happy
S The dogs	V bark	O all night
S They	V enjoy	O music
S They	V love	O sports
S Rob and Dylan	V walk	O together
S Judy and Karen	V eat	O cake

Long-distance agreement singular

S The woman	X with the red shoes	V walks	O to the office
S The man	X with blue eyes	V talks	O French
S The girl	X with glasses	V wears	O a red dress
S The teacher	X in blue jeans	V eats	O an apple
S The horse	X with black and white spots	V jumps	O over the fence
S The boy	X in grey sneakers	V plays	O basketball
S The girl	X in green boots	V reads	O a magazine
S The man	X with two dogs	V runs	O very fast

Long-distance agreement plural

S The girls	X with blonde hair	V talk	O loudly
S The cats	X with long white fur	V eat	O fish
S The men	X in the grey suits	V walk	O to the office
S The dogs	X with green collar	V jump	O very high
S The soccer team	X with red jerseys	V play	O good football
S The employees	X at the coffee shop	V wear	O green aprons
S The pupils	X in the library	V read	O novels
S The team	X with blue colours	V run	O every day

Appendix 8 –Verbs for ‘describe the cartoon’

- Walk
- Paint
- Look
- Smoke
- Taste
- Steal
- Switch
- Sneak
- Run
- Smash/crash
- Fall down
- Brush
- Scratch
- Pass each other
- Blink
- Open
- Throw
- Stretch
- Bend
- Sweat
- Sprint
- Tiptoe
- Hide
- Tease
- Think
- Measure
- Fool/ trick
- Pour
- To stir
- Jump
- Leave
- Shoot
- Dig
- Bury
- Grow
- Kiss