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The measurement of traditional and cyber forms of bullying and harassment

Addressing challenges with prevalence and impact estimation based on data from the Norwegian study 'Well-being in Tromsø'

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'Finding strong measures to assess the complex construct of bullying remains a major challenge for the field.' Evans, Fraser, and Cotter (2014)

Acknowledgements

This thesis is a result of a three-year project. During this period, I have seen three full waves of data collection through, covering planning, technical administration, support, data retrieval and reporting. A million datapoints were gathered and more than 2,000 students assessed. I conducted five interviews with 18 individuals. I have written 17 school reports where data has been fed back and have given special reports in some instances. The work has consisted of more than 20 school visits and numerous meetings of the project group. I have met with students, talked to teachers, held discussions with school leaders and have even presented results during parent meetings. I have made presentations at one conference and at several internal and external seminars. I have been fortunate to have been invited to participate in other research as well and to have co-authored two additional book chapters and two papers related to digital literacy. I have even contributed to one report about the national state of affairs of digital literacy. It has indeed been a period of learning and personal growth.

Completing a PhD project is for most candidates a test of endurance. For three years, I have often hit my head against the wall, with some more knowledge sinking in each time. It could have been painful, but fortunately I have been lucky to have people supporting me. I am grateful for all help, support, enthusiasm, criticism and useful discussions with my main supervisor, Professor Steinar Thorvaldsen. Without your guidance, my work would have been much more difficult to complete. You have always been available and taken time to help me with both small and big issues. Thorvaldsen is the manager of the project I participated in (Well-being in Tromsø), which helped us make decisions quite efficiently—a fact that has really helped with my sub-project. In addition, I owe much to my second supervisor, Professor John Andreas Rønning. You have actively kept in contact and has with true engagement discussed findings, problems, research designs, methods and theory. Your strong professional standard in the

field of child psychiatry and bullying has been very valuable for my work. I am grateful to both my supervisors for being included as a full member of the research group and for making me feel important to the project. In the rather small project group, Geir-Olaf Pettersen has been a true support. Thank you for your comments on and insights about my work. But most of all, thank you for your true friendship. Bjørn Helge Handegård has been important in most statistical analyses as a discussions partner and quality assurer. Thank you for sharing your in-depth knowledge about quantitative analyses. I also wish to thank my fellow PhD students at the Institute of Pedagogy and Teacher Education (ILP) for the inspiring discussions and friendly support. There are many other people to thank. First and foremost is my wife Grethe, who has endured three years of books and papers spread all over, nerdy talks about subjects that may only have been remotely interesting to her and a husband living part time in Tromsø. You have been a true support and important factor in the completion of my work. My two boys, Martin and Sigurd, have both taken part in my work and have belief in what I was doing. My parents, Gunvor and Erik, have been important too, giving both practical and professional advice and help. Having a retired nurse and a retired professor as parents is a perfect match when at one time you are in need comfort and the next in need of academic advice. Last, thanks go to all the students, teachers and school leaders who participated in Well-being in Tromsø. You have devoted much time and commitment to the project, making it such a strong and interesting study.

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Title	Authors	Publisher	Status
Understanding bullying: how students and their teachers perceive terms of negative conduct	Gunstein Egeberg, Steinar Thorvaldsen, John A. Rønning	Educational studies	2nd revision submitted (minor revisions): 5th of August, 2016
Assessing validity and group invariance for the "Well-being in Tromsø" harassment inventory using confirmatory factor analysis (CFA) and exploratory structural equation modelling (ESEM)	Gunstein Egeberg, Bjørn Helge Handegård, Steinar Thorvaldsen, John A. Rønning	Scandinavian Journal of Child and Adolescent Psychiatry and Psychology	Submitted: 26th of September, 2016
Cyber Harassment and Quality of Life	Steinar Thorvaldsen, Anna-Maria Senseth, Gunstein Egeberg, Geir Olaf Pettersen, John A. Rønning	Digital Expectations and Experiences in Education (Elstad, 2016) (Sense Publishers)	Published

The impact of cyberbullying and cyber harassment on academic achievement	Gunstein Egeberg, Steinar Thorvaldsen, John A. Rønning	Digital Expectations and Experiences in Education (Elstad, 2016) (Sense Publishers)	Published

Abbreviations

NOVA: Norwegian Social Research (a research institiute at the Oslo and Akershus University College of Applied Sciences)

DSM-5: Diagnostic and Statistical Manual of Mental Disorders, fifth edition

ICD-10: International Statistical Classification of Diseases and Related Health Problems, 10th edition

SDQ: Strength and Difficulties Questionnaire (Goodman, 1997)

KINDL: Not an acronym. A health related quality of life instrument

QoL: Quality of Life

HR-QoL: Health related quality of life

SEM: Structural Equation Modeling

ESEM: Exploratory Structural Equation Modeling

ICM-CFA: independent clusters model of confirmatory factor analysis

SES: Socio-economic status

CBCL: Child Behavior Checklist

Abstract

Bullying is high on the political agenda, a hot topic in the media and a great worry for many teachers and parents. But more than anything, it is a major problem for many children and adolescents and has short- and long-term effects on their personal well-being, social life and health. For more than four decades, efforts have been made to counteract bullying, and while some progress has been made, there are still fundamental issues to resolve. This thesis deals with the measurement of bullying. Four papers target severity of negative actions and compare the related terms 'bullying' and 'harassment'. The theoretical sections of the papers and the thesis cover a historical overview, definitions and constructs, outcomes of bullying, identified roles in bullying dynamics and differences of groups, such as gender, age and country. Some key points regarding quality of life (QoL) and mental health are also discussed.

The thesis has three main research questions (RQs):

RQ1: How does the perception of the severity of negative behaviour and of the perception of the definition of bullying differ between groups, such as students of different ages and their teachers, but also between individuals?
RQ2: How does a multiple-item approach to measuring bullying perform compared to a single-item approach?
RQ3: How do the concepts of harassment and bullying relate to QoL?

RQ1 is mainly covered in paper I, while RQ2 and RQ3 are mainly covered in papers II–IV.

In the first step, the perceptions of negative conduct are investigated in an interview study. Five focus groups, each with 3–4 interviewees, provide the data

for the paper. Evidence is given for big differences in how students and teachers regard various kinds of negative conduct. While teachers view physical forms of bullying as the most serious, students perceive social and cyber forms as the most severe. Furthermore, there is a substantial difference in perceptions at the individual level. Some students seem to regard most negative behaviour as bullying, while others argue that only what seems to be very explicit events should be regarded as bullying. Another important finding, although presented in earlier research, is that students not necessarily agree with the three commonly employed criteria of bullying: repetition/duration, negative behaviour and imbalance of power. It is obvious from the interviews that severity is indeed a factor in students' perceptions of bullying. The next step is to try to capture the notion of severity. The main approach in the present work is to combine an inventory of 23 different kinds of negative conduct with measures of perceived QoL. The idea is to use concrete events that children should intuitively understand and use the measure of QoL as an indicator of severity. Of course, QoL is of interest in itself as a measure of students' well-being. To be able to use QoL in combination with the harassment inventory, at least two issues should be investigated. First, the partly newly refined 23-item harassment inventory should be assessed in terms of validity and reliability. Second, a relationship between harassment and QoL must be established. The second paper deals with the validity and reliability issues, largely relying on structural equation modelling (SEM) techniques. Papers III and IV yield descriptive information about levels of harassment, bullying and QoL (paper III) and the relationship between harassment, QoL and academic achievements using SEM models (paper IV). The concept of bullying is also included to facilitate comparisons between harassment and bullying in terms of correlations or impact on QoL. The harassment inventory seems to be valid and reliable, but the results indicate a problem with age comparisons. Group invariance tests show that younger students differ from older students, which is an indication that the constructs are somewhat different. Paper III shows a clear, negative relationship between QoL and both bullying and harassment. Furthermore, the paper yields the

results of gender differences. Paper IV establishes a relationship between harassment and bullying vis-à-vis academic achievement. However, it transpires that this relationship is to a certain degree mediated by perceived QoL at school.

Future research should take into account the subjective nature of the perceived severity of negative behaviour. Development in the measurement of bullying needs to address this fact, and new approaches should be investigated.

Sammendrag

Mobbing befinner seg høyt på den politiske agenda, et hyppig tema i media og bekymrer mange lærere og foresatte. Mer enn noe annet er mobbing et problem for mange barn og unge. Mobbing har konsekvenser både på kort og lang sikt for livskvalitet, sosialt liv og helse. I mer enn fire tiår har man forsøkt å forebygge mobbing, og selv om det har vært fremgang, er det fremdeles mye som gjenstår. Denne avhandlingen dreier seg om måling av mobbing. Fire artikler tar for seg alvorlighet i negative handlinger og sammenligner de to beslektede begrepene "trakassering" og "mobbing". De teoretiske avsnittene gir innsikt i historiske perspektiver, definisjoner og konstrukter, konsekvenser av mobbing, roller og forskjeller mellom grupper, slik som kjønn, alder og nasjonalitet. Noe nøkkelinformasjon om livskvalitet (QoL) og mental helse er også tatt med.

Avhandlingen har tre forskningsspørsmål (RQ):

RQ1: Hvordan varierer opplevelsen av alvorlighet ved negative handlinger og forståelsen av definisjonen av mobbing mellom grupper, slik som elever i ulik alder og deres lærere, men også mellom individer?
RQ2: Hvordan fungerer multi-item metode for måling av mobbing sammenlignet med single-item metode?
RQ3: Hvordan er relasjonen mellom konseptene trakassering og mobbing på den ene siden og livskvalitet på den andre?

RQ1 blir i hovedsak behandlet i artikkel I, mens RQ2 og RQ3 blir i hovedsak behandlet i artikkel II-IV.

I første steg blir opplevelsene av negative handlinger undersøkt i et intervjustudie. Her benyttes fem fokusgruppeintervjuer, hver med 3-4 deltakere. Et viktig funn er

de store forskjellene mellom hvordan elever og lærere oppfatter ulike negative handlinger med tanke på alvorlighet. Mens lærerne peker på fysiske former som mest alvorlige, peker eleven på sosiale og digitale former som mest alvorlige. Det er videre stor variasjon på det individuelle plan når det gjelder hvor alvorlig en hendelse må være for å bli vurdert som mobbing. Mens noen elever synes å mene at det meste av negative handlinger bør forstås som mobbing, har andre et mye mer restriktivt syn. Studiet støtter også tidligere forskning om at elevene ikke alltid inkluderer de tre vanlig brukte kriteriene for mobbing, repetisjon/varighet, negative handlinger og ubalanse i maktrelasjonene.

Fra intervjuene er det er åpenbart at opplevd alvorlighet i negative hendelser er en viktig faktor i elevenes forståelse av mobbing. Det neste steget er å inkludere opplevd alvorlighet i måling av mobbing. I hovedsak er strategien her å benytte et delvis nyutviklet trakasseringsinstrument bestående av 23 spørsmål. Her måler vi konkrete negative hendelser. Disse konkrete hendelsene blir så knyttet opp mot elevens opplevde livskvalitet. Tanken er således at endringer i opplevd livskvalitet vil si noe om opplevd alvorlighet. Livskvalitet er uansett et interessant tema i relasjon til mobbing, uavhengig av strategien om å benytte begrepet som informasjon om alvorlighet i hendelser. For å kunne benytte livskvalitet i kombinasjon med trakasseringsinventoriet, må i hvert fall to forhold undersøkes. For det første må det delvis nyutviklete trakasseringsinstrumentet vurderes med tanke på validitet og reliabilitet. Deretter må man kunne identifisere en relasjon mellom trakassering og livskvalitet. Artikkel II tar for seg validering av trakasseringsinstrumentet, i stor grad gjennom bruk av strukturell ligningsmodellering (SEM). Artikkel III gir deskriptive funn om relasjonen mellom mobbing og trakassering på den ene siden og livskvalitet på den andre. Artikkel IV utvider disse funnene gjennom bruk av SEM-analyser, og her berøres også relasjonen til skolefaglige prestasjoner.

Vi finner at trakasseringsinstrumentet er valid i form av konvergerende og diskriminerende validitet, og også at det i hovedsak er invariant over grupper. Her er det likevel et viktig unntak da instrumentet ikke fungerer likt for elever i ulik alder. Artikkel III viser en tydelig, negative relasjon mellom livskvalitet og både mobbing og trakassering. Videre gir artikkelen funn om kjønnsforskjeller, noen litt overraskende. Artikkel IV viser en relasjon mellom trakassering og mobbing på den ene siden og skolefaglige prestasjoner på den andre. Det er interessant å se at hovedeffekten av negative atferd på skoleprestasjoner medieres gjennom redusert skoletrivsel.

Fremtidig forskning burde ta hensyn til det subjektive ved opplevd alvorlighet i negative handlinger. Videre utvikling av måling innen mobbefeltet bør adressere dette, og nye metoder bør utvikles.

Introduction

Bullying is a common topic in the media. Disturbing stories, sometimes with tragic outcomes, appear in the news from time to time. In the wake of these stories, experts often comment on various aspects of childhood and adolescence. Often, they give advice on how to battle bullying, give information about its prevalence or elaborate on the reasons for bullying or why some people are victimised. However, in reading the academic bullying literature one soon understands that what at first glance seems to be accepted truths are sometimes indeed questioned.

This thesis investigates how students and teachers perceive bullying, particularly how they perceive the severity of bullying behaviour. The thesis is mainly concerned with the *victims* of bullying. While in earlier research much attention has been devoted to identifying group differences, this thesis explores both differences between groups and differences at the individual level. The understanding of both group and individual differences in how people understand bullying and perceive the severity of negative actions is fundamentally important for researchers in the field. The next step of the thesis is to explore two approaches to capture bullying behaviour. Both approaches are well known in bullying literature. Olweus' global single-item approach gives students a definition of bullying and then simply asks how often a student has been involved in bullying over the past few months as a victim or as a bully (Solberg and Olweus, 2003). Some research omits the definition and focuses solely on the single-item approach. The other main approach is to assess negative behaviour using inventories, a common strategy in psychological testing and assessment. After having validated the inventory used in the Well-being in Tromsø survey (Rønning and Thorvaldsen, 2012), these two approaches are compared using descriptive data and structural equation modelling (SEM) analyses. The implications of the findings are discussed in the Conclusions section, along with some suggestions for further research.

While this thesis is mainly about bullying and harassment, it also discusses mental health and quality of life (QoL), as these constructs are used in comparing approaches. However, interesting findings beyond mere comparison are revealed. The studied groups are children and adolescents in grades 4–10 in primary and lower secondary school with a median age of 9.5–15.5 years.

In terms of structure, this thesis begins with a critique and exploration of terms related to bullying and harassment to elucidate some of the issues concerning the subjective elements of these terms. Here, I am concerned both with the differences between how students and teachers perceive certain terms with regard to severity and with how these terms are perceived at the individual level. I then move on to validate our 23-item harassment inventory. This is important because this instrument is refined (with eight new cyber harassment items), and the instrument is used to investigate the relationships between the constructs of harassment, bullying, mental health and QoL. If the inventory yields sufficient evidence for construct validity, it would be possible to assess relevant relationships and impacts of bullying and harassment on mental health and perceived QoL. Part of my work focuses specifically on cyber harassment and cyberbullying because these concepts are new and less investigated. Another reason to concentrate on the cyber forms relates to validity, as instruments measuring these newer forms of bullying and harassment are even less validated than those trying to capture the traditional forms.

The concept of bullying

Bullying is closely related to the concepts of harassment and aggression. In the dictionary, harassment is defined as torment by putting constant pressure on someone or as repeated hostile small-scale attacks, while aggression is defined as violent or hostile behaviour or attitudes (Soanes and Hawker, 2006). Bullying is often viewed as persistent and repeated, intentional, negative behaviour where there is an imbalance of power (Olweus, 2001). In other words, bullying can be

seen as intentional harassment directed towards a weaker person. Bullying among children is a phenomenon that is likely to always have been a part of many children's growing up. However, the research interest in this form of peer aggression first started in the 1960s when Peter-Paul Heinemann wrote about what he perceived as events where a group of children turned against a single child (Heinemann, 1973). Heinemann viewed bullying in the light of ethology and theories put forward by the ethologist Konrad Lorenz. Heinemann, a German born physician living in Sweden, applied Lorenz' theories to what he observed in spaces where children played. At about the same time, a Swedish researcher took a different approach. Dan Olweus viewed bullying (or 'mobbing' in Swedish) from an individual perspective. Group processes were acknowledged, but Olweus put more emphasis on the fact that bullying is often a form of abuse with only one perpetrator (Olweus, 1978). The new field of bullying research gradually became more robust. A specific incident greatly fuelled the research interest. In 1982, three young boys in northern Norway were bullied to the extent that they chose to end their lives (Hjort-Larsen, 1982). Norwegian authorities turned to Olweus, and the first national and large-scale investigation into bullying started. Olweus developed his prevalence questionnaire (Olweus, 1994), an instrument that in successive versions is still widely used worldwide. Furthermore, he developed an anti-bullying programme designed to reduce bullying. Last and important for the present thesis, Olweus developed a definition of bullying. He emphasised three key criteria—intentional negative actions, repetition over time and an imbalance of power. This definition remains basically unchanged, but Olweus uses somewhat different wording today.

> We say a student is being bullied when another student, or several other students,
>
> say mean and hurtful things or make fun of him or her or call him or her mean and hurtful names**,** completely ignore or exclude him or her from their group of friends or leave him or her out of things on purpose, hit, kick, push, shove around, or lock him or her inside a room**,** tell lies or spread false rumours about him or her or send

> mean notes and try to make other students dislike him or her and other hurtful things like that.
>
> When we talk about bullying, these things happen repeatedly, and it is difficult for the student being bullied to defend himself or herself. We also call it bullying when a student is teased repeatedly in a mean and hurtful way. But we do not call it bullying when the teasing is done in a friendly and playful way. Also, it is not bullying when two students of about the same strength or power argue or fight. (Olweus, 2013a)

Olweus has greatly influenced research on bullying. Very few articles on the topic fail to have at least one reference to him. His definition is commonly referred to, but unfortunately researchers still define bullying quite differently from each other (Ferguson et al., 2007, Smith and Gross, 2006). This is true in terms of the precise wording of the definitions used and in terms of how the three main criteria are operationalised (Vivolo-Kantor et al., 2014).

In the early years of research on the topic, bullying was viewed as being physical or verbal (Olweus, 1978). In the 1980s, researchers identified an indirect form of bullying where social relationships were targeted (Lagerspetz et al., 1988). Cyberbullying evolved as a result of personal computers entering most homes and of course as a result of the Internet revolution. Typically, most physical and verbal forms of bullying are referred to as 'direct' and most social forms are referred to as 'indirect' (Craig et al., 2009). How to categorise the recent forms of cyberbullying is not obvious, as both direct and indirect forms exist. Overall, four domains of bullying are identified– *physical, verbal, social and cyber* (Thomas et al., 2014). The first bullying studies were conducted before we became used to smart phones and social media in the last half of the 2000s (Ybarra and Mitchell, 2004, Smith et al., 2006c). This means that research on cyber bullying is still in its infancy.

Some important findings in the bullying literature

There is growing interest in bullying research (Olweus, 2013a), and researchers have made significant progress over the years with many important findings. While some findings are rather consistent across studies, others are not. In the following a few important findings that are particularly relevant for this thesis are presented and, where relevant, inconsistent findings are discussed.

The roles in bullying

In the early stages, bullying research was concerned with the roles in bullying—perpetrator and victim (Heinemann, 1973, Olweus, 1978). It was important both to describe the children involved in these roles and to understand the underlying mechanisms and traits of bullies and their victims. Later, one became aware of a combined role, that of bully-victims. These children are involved both as victims and as bullies. However, there are more than these three roles. Salmivalli (1996) identified four distinct roles in addition to the bullies and victims—assistants of bullies, reinforcers of bullies, outsiders, and defenders of the victim. The assistants of bullies actively support the bully but are not leaders. Reinforcers of bullies do not directly support the bully but reinforce him or her through behaviour such as laughing and merely being present. Outsiders are those who keep away from the bullying actions. Defenders of the victim actively stand up for the victim. In a study about moral disengagement, Oberman (2011) distinguished between four somewhat different bystander roles: outsiders (do not observe bullying), defenders, guilty bystanders and unconcerned bystanders (do not feel concerned). Olweus (2003) has suggested an even more nuanced model of roles (see Figure 1).

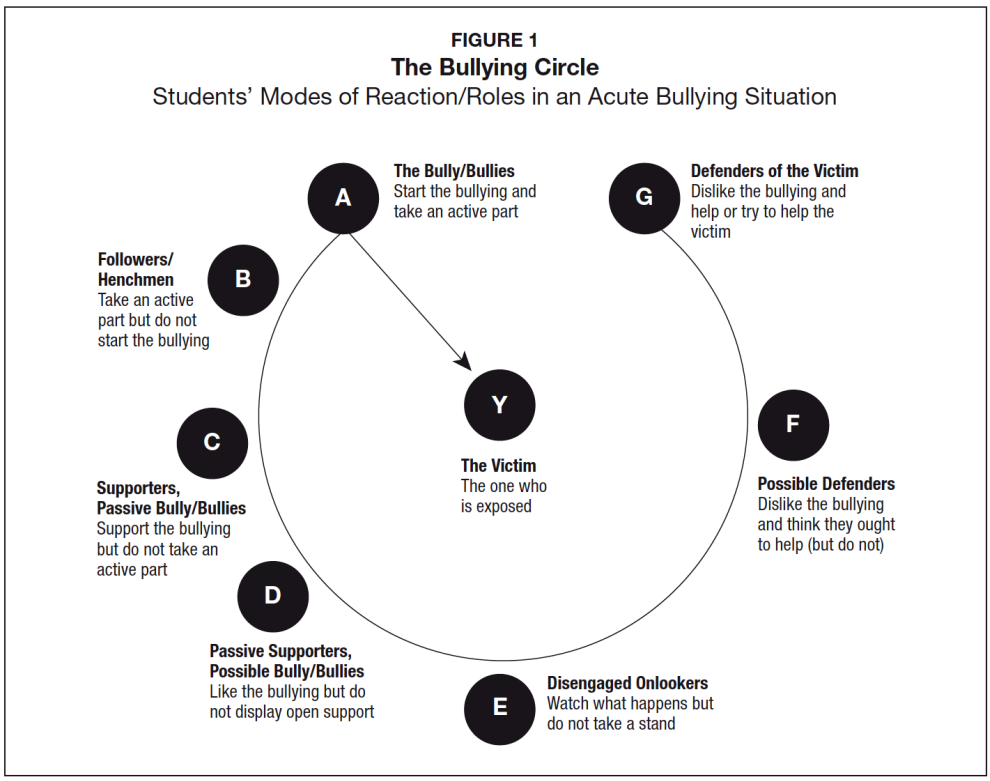

Figure 1: The Bullying Circle (Olweus, 2003)

The model proposed by Olweus has the victim in the centre of the circle. The bullies are those who directly attack the victim. They are supported by followers/henchmen who actively support the bullies but are not responsible for initiating the actions taking place. The supporters are those who openly support the bullies but do not take an active part. The passive supporters are those who seem to enjoy the action but do not openly support the perpetrators. The disengaged onlookers are neutral but still present. The possible defenders dislike what is going on and perhaps consider intervening but do not. The defenders are those who actively support and help the victim.

The impact of bullying

Much research has been conducted to identify the outcomes of bullying. A range of negative consequences have been identified for victims, such as depression; anxiety; agoraphobia; reduced levels of well-being; lowered levels of self-esteem; suicide ideation; post-traumatic stress disorder; panic disorder; psychosomatic

symptoms like headaches and stomach aches; social adaption problems like feeling left out or loneliness; anger; sleeping problems; sadness; alcohol abuse; reduced academic performance; dropping out of school; peer problems; psychoticism; behavioural problems; long-term effects on family and problems with work adaptation (Allison et al., 2009, Idsoe et al., 2012, Bannink et al., 2014, Bond et al., 2001, Copeland et al., 2013, Due et al., 2005, Fekkes et al., 2004, Gámez-Guadix et al., 2015, Glew et al., 2005, Kowalski and Limber, 2013, Rønning et al., 2004a, Wilkins-Shurmer et al., 2003, Winsper et al., 2012, Wolke and Lereya, 2015, Wolke et al., 2014). Bullies share many but not all the negative outcomes of victims, including depression, poorer academic achievement, reduced QoL, sadness, feeling left out, suicide ideation and poor social adaptation (Glew et al., 2005, Brunstein Klomek et al., 2007, Frisén and Bjarnelind, 2010a, Haynie et al., 2001). There are specific negative outcomes related to the role as bully as well, such as criminal involvement and anti-social behaviour (Sourander et al., 2011, Sourander et al., 2007a, Olweus, 1978, Brunstein Klomek et al., 2010, Copeland et al., 2013). Related to the role of bully/victim, some findings indicate this particular group is the most vulnerable because they display effects seen in both victims and bullies and show even lower psychosocial functioning (Kim et al., 2006, Juvonen et al., 2003, Kumpulainen and Räsänen, 2000, Mynard and Joseph, 1997). Being a victim of bullying might lead to becoming a perpetrator later on, but so far there seems to be less support for the claim that being a bully might lead to later victimisation (Haltigan and Vaillancourt, 2014). An important finding is that bullying also has a negative effect for those not directly involved. In a study about violence, bullying and academic achievement, Strøm, Thoresen, Wentzel-Larsen, and Dyb (2013) found that there are lower grades at schools with elevated levels of bullying compared with schools with average or lower levels of bullying.

Prevalence

It has proved difficult to accurately estimate the prevalence of bullying. The very different figures across studies are challenging. In an international comparative

study, Due et al. (2005) found prevalence figures from 6.3% among Swedish girls to 41.4% among Lithuanian boys. In a study about cyberbullying, Juvonen and Gross (2008) found that a very high 72% of their respondents had experienced being bullied online, and of these 85% had experienced bullying at school as well. In Norway, Dan Olweus has been involved in many large-scale studies and has found the prevalence of bullying in Norway is typically around 15% (Olweus, 1994), although this has varied substantially over the years (Olweus, 2003, Olweus, 2005). According to Olweus, the estimates of bullying victimisation are typically a little below 10% and those for bullying perpetration are around 5%. In more recent research, these figures are somewhat lower. For instance, the findings of the large-scale National Student Survey (Figure 2) indicate that about 7.5% of Norwegian students were victims of bullying in 2008. The estimate is substantially lower for 2015 at 3.7% (Wendelborg, 2016). Some changes were made to the survey between these years, although the questions about bullying involvement have remained the same. It is likely that some of the reduction in bullying prevalence is due to the survey changes, such as introducing harassment questions before those measuring bullying, reducing the length of the survey and moving it from the spring semester to the autumn semester (Wendelborg et al., 2014). However, it is quite possible that there has been a real reduction in prevalence.

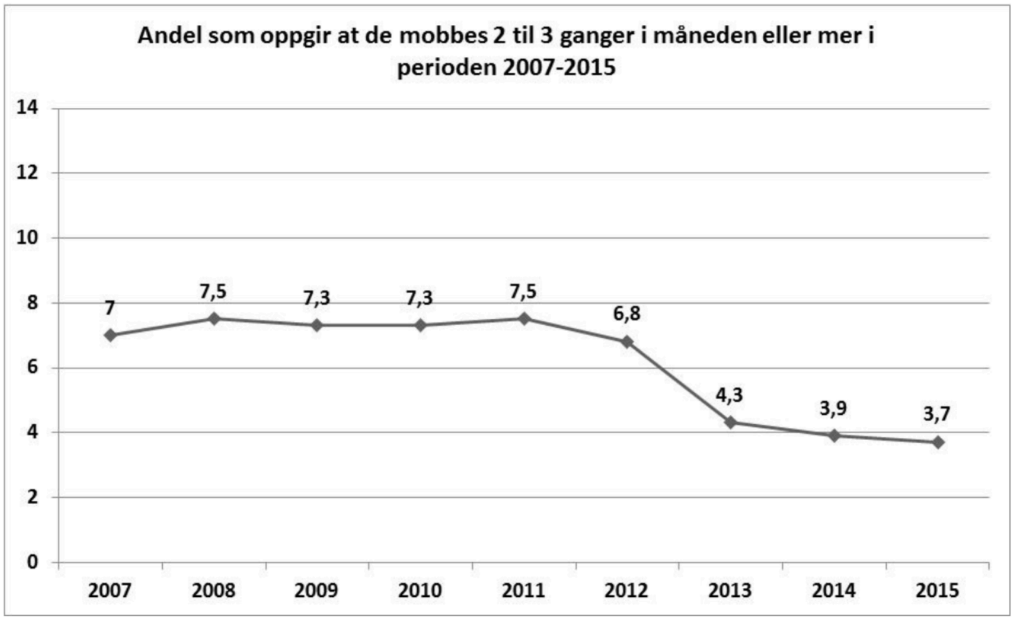

Figure 2: Percentage of students reporting being bullied 2–3 times a month or more often in the period 2007–2015 (Wendelborg, 2016, p. 7)

Children who are persistently bullied are of great concern because the burden increases as the perpetration continues. In a British study, Bowes et al. (2013) found that 13.3% of students were victims of bullying at both at age 5 and age 12. Boys were persistently bullied to a larger degree compared to girls (15.0% vs. 11.7%). Kochenderfer-Ladd and Wardrop (2001) found that 14% of the students in their sample were bullied for three years, but the figure dropped to 4% for students being bullied for four years.

Group differences

There has been great interest in how different groups report on bullying involvement and how these groups experience various negative outcomes of bullying. For instance, in most reports, boys are more involved both as bullies and as victims compared to girls (Wendelborg et al., 2014, Craig and Pepler, 2003, Olweus, 2001, Sentse et al., 2015). However, in a study about cyberbullying, Cappadocia, Craig, and Pepler (2013) found that girls were more involved than boys both as bullies (11.9% for girls vs. 11.1% for boys) and as victims (17.7% for

girls vs. 8.2% for boys). In a meta-analytic review, Card et al. (2008) found that boys were more involved than girls in physical forms of bullying but that the gender differences were negligible in terms of indirect (or social) forms of bullying. The large-scale National Pupil Survey (Wendelborg, 2016) shows that the gender differences are becoming smaller and that there is now very little difference between girls and boys in terms of bullying victimisation. Researchers have also identified age differences, where the typical development of bullying moves from higher levels among younger children to lower levels among older children (Olweus, 2001, Wendelborg et al., 2014, Scheithauer et al., 2006). Although much more rare, other studies have investigated group differences in bullying prevalence, including socio-economic status (Chaux et al., 2009), academic achievement (Juvonen et al., 2010) and race (Spriggs et al., 2007).

Bullying measures

Several approaches to measuring bullying exist. Occasionally, qualitative approaches are employed in bullying research, often as in the form of observation (e.g. Craig and Pepler, 1998, Goncy et al., 2015) or interviews (e.g. Kvarme et al., 2010, Bosacki et al., 2006) or in the form of combined or mixed methods (e.g. Newman et al., 2006, Woods and Wolke, 2004, Torrance, 2000, Pellegrini and Long, 2002a). In qualitative bullying research, photos, narrative stories, cartoons and other kinds of supplementary material is often included. We have learned much from qualitative research about how children experience the different roles involved in bullying, about causes and effects and about how one can help stop bullying. As pointed out by Bosacki et al. (2006), qualitative research deepens the insight of researchers and provides input for further research: 'Thus, a critical advantage of qualitative research is the possibility that participants' responses will enable investigators to view the problem from a different perspective and to reflect on the assumptions underlying their research.' (Bosacki et al., 2006, p. 233).

However, quantitative methods dominate bullying research. The Olweus Bully/Victim Questionnaire (OBVQ) is probably the tool most used to estimate the prevalence of bullying (Pellegrini, 2001). When assessing prevalence, the OBVQ (and several other measures) uses one single item about whether a person has been exposed to bullying in the last few months. Items capturing more concrete events often follow, but these are normally not used in overall prevalence estimation (Solberg and Olweus, 2003). Researchers use a cut-off to separate bullying from less severe forms of aggression or harassment. Experiencing such behaviour two or three times in the last several months is a common cut off (Solberg and Olweus, 2003), but others also exist (Scheithauer et al., 2006, Bannink et al., 2014). Other scales are also used, such as dichotomised scales (Bond et al., 2001, Ybarra and Mitchell, 2004) and Likert scales with categories other those on the OBVQ (Fekkes et al., 2004, Frisen et al., 2008, Wolke et al., 2014). The practice of using a single- item measure to capture bullying has not

been criticised much, even though such practice in general is questioned (Diener, 2009). It is not the case that such measures should be abandoned entirely, as there are in fact reports of acceptable reliability and arguments of validity for some measures (de Boer et al., 2004, Milton et al., 2010). However, a major problem with single items is the limited approaches available to assess reliability. Often, only a test-retest reliability approach is considered when assessing single items' reliability, and then one is targeting temporal reliability only. A wider range of reliability assessments are available for multiple-item scales, with inter-item consistency tests being most commonly employed.

Various methods for capturing bullying exist, the most common of which are teacher, parent and peer reports or nominations. In nomination techniques, children are asked to point at peers who are either bullies or victims. Sometimes, more than one nomination is required for a person to be labelled either a victim or a bully. However, the most frequently used measure is probably self-reporting (Vivolo-Kantor et al., 2014). Two main approaches are commonly employed when using self-reports, using a single, global question such as 'Have you been bullied over the last two or three months?' or presenting candidates with a list of negative behaviours. In a recent review, Vivolo-Kantor, Martell, Holland, and Westby (2014) identified more than 1000 articles dealing with bullying measurement, and 164 different measures were found. The authors included 41 of these measures in their review. They found that only 31.7% of the measures included the term 'bullying', 26.8% provided a definition and 85.4% were self-reporting. In other words, there is no one overarching approach to the assessment of bullying.

Some problematic issues

The field of bullying research faces many methodological challenges, and there are still major issues to be solved. Many of the problems have been known for rather a long time, but little has been done to actively solve them. Following, I point out some of the problems, but the list is not exhaustive.

First, as pointed out by so many researchers, the term 'bullying' is perceived differently by children in different countries and of different ages and by different groups, such as students, teachers, parents and researchers (Menesini et al., 2002, Smith et al., 2002, Monks and Smith, 2006b, Smorti et al., 2003, Smith et al., 2009, Maunder et al., 2010). For instance, Vaillancourt et al. (2008) found that researchers and children (aged 8–18) have rather different perceptions of what constitutes bullying. Children were more likely to mention negative acts, while researchers included typical criteria of an imbalance of power, intentionality and repetition/duration. Prevalence estimation and comparison is probably influenced by how candidates understand terms and definitions, which threatens validity (Greif and Furlong, 2006). It has been argued that the fact that younger children seem to be more engaged in bullying than older children is a result of children in lower grades including negative behaviour that normally would fall outside the commonly used definition when reporting on self-report questionnaires (Smith et al., 2002, Smith et al., 1999b).

Second, as discussed, researchers use a variety of different measures when assessing bullying (Vivolo-Kantor et al., 2014, Vessey et al., 2014, Evans et al., 2014). There exists no 'gold standard' instrument for assessing bullying.

Third, generally the instruments used lack robust documentation of validity. For instance, Vessey et al. (2014) rated 31 reports on the validity of bullying instruments and concluded that only six scored 75% or more on their scale, a limit which they seem to set as an acceptable lower bound of quality. Evans, Fraser and Cotter (2014) note that construct validity is challenged, as the interventions they reviewed relied on instruments with low levels of precision. The OBVQ is among the most used instruments and is probably one of the most thoroughly validated (Vessey et al., 2014). However, the validity of even the OBVQ is questioned to some

extent (Eriksen, 2014, Eriksen et al., 2014, Vessey et al., 2014, Drugli and Eng, 2014).

Fourth, related to issues of construct validity, the factor structure of bullying has only been investigated to a limited degree. In 2004, before cyberbullying had really been researched, Rønning et al. (2004a) identified three factors when conducting confirmatory factor analysis (CFA)—verbal, physical and social. However, the factor structure was problematic in terms of inter-factor correlation, meaning that the factors were not robustly discriminated. Marsh et al. (2011) used exploratory SEM (ESEM) to determine the factor structure of the Adolescent Peer Relations Instrument (APRI). They validated the instrument in terms of convergent and discriminant validity, stability, group invariance and factor structure. Concerning the factor structure, their six-factor ESEM model yielded good model fit. However, the six-factor model identifying verbal, physical and indirect bullying either as bullies or as victims did not include items of cyberbullying. Varjas, Henrich, and Meyers (2009) extended their measure of bullying with four new cyberbullying items. Using CFA, they identified four factors: physical, verbal, social/relational and cyber. However, more work is needed to better understand the factor structure of bullying, as there are few reports about this issue.

Fifth, while some research has assessed perceived severity (Cheng et al., 2011b, Chen et al., 2015, Yoon and Kerber, 2003), this issue is largely overlooked. Furthermore, most of the existing research on severity is related to group differences. For instance, Yoon and Kerber (2003) found that teachers and students rated the same kind of behaviour differently in terms of severity. The fact that bullying is fundamentally a subjective experience and that people do not perceive the same action in the same way has not received much attention. The subjective factor in bullying is problematic for several reasons. On one hand, researchers cannot be sure of what they are measuring if the same kind of action is perceived so differently from person to person. On the other hand, it is difficult for

teachers and others who try to battle bullying to intervene effectively when there are few objective criteria available.

Sixth, research on the effect of interventions and anti-bullying programmes is not consistent. Several studies have documented the effects of interventions and programmes (Ttofi et al., 2008, Olweus, 1994, Olweus, 2005, Salmivalli et al., 2005, Roland et al., 2010). Olweus found typical bullying reduction rates of 30% to over 50% (Olweus, 2005). An international review study of 30 prevention programmes found lower reduction rates of 20–23% (Ttofi et al., 2008). The Olweus programme received recognition for being among the best programmes. However, other studies have found mixed, uncertain, little or no effects of anti-bullying programmes (Stevens et al., 2000, Ferguson et al., 2007, Merrell et al., 2008, Smith et al., 2004). For instance, Lødding and Vibe (2010a) found little or no effect of anti-bullying programmes in their investigation of 1582 Norwegian schools, 45.6% of which were actually using or had used such programmes. As pointed out by Anders Bakken in an interview with the Norwegian research portal 'forskning.no' (Eriksen, 2014), the fact that a programme seems to produce an effect does not necessarily mean that the only way to achieve such an effect is through that programme. Even schools not using such programmes can have a good school culture. The effectiveness of anti-bullying programmes remains unclear, as many of the existing reports have rather significant limitations in terms of design.

Seventh, the idea that the frequency of bullying corresponds to the severity of bullying has not been thoroughly investigated. When researchers say that victims being subjected to certain behaviours more than a certain number of times constitutes bullying, they actually link the frequency of the action to severity. However, frequency is probably not a very precise measure of severity (Chen et al., 2015). Therefore, this issue needs to be better addressed.

Eighth, the practice of dichotomising bullying into either bullied or not bullied is normally seen as inferior to an approach where full information of the scale is used (Marsh et al., 2011). Bosworth, Espelage, and Simon (1999) point at information being lost when discarding data from the lower end of the bullying continuum or when collapsing categories to only two alternatives—bullied or not bullied, bully or not bully. The use of dichotomised variables makes sense in some ways when communicating prevalence figures, as such figures are easily interpretable. However, precision is lost and the many nuances of bullying behaviour are under-communicated. Generally, researchers warn against the practice of dichotomising variables (MacCallum et al., 2002).

Mental health

The World Health Organization (WHO) and various researchers point out the mental health challenges facing many countries across the world (WHO, 2001, Whiteford et al., 2015). Many western countries report prevalence figures relating to lifelong mental health problems of more than 40% (Andrade et al., 2000). The typical onset of mental health problems varies according to the specific diagnosis, with anxiety and impulse-control disorder often seen in pre-teens (Kessler et al., 2005). Despite being a highly developed and peaceful country, the mental health problems of children and adolescents in Norway are substantial. According to the Norwegian Institute of Public Health, 15–20% of the population aged 3–18 experience mental health problems at any given time (Stoltenberg et al., 2014, p. 161). Comorbidity is common. The increase of more than 40% in antidepressant prescriptions for people under the age of 18 between 2004 and 2013 indicate an increase in mental health problems among children and adolescents. In comparison, the increase in such prescriptions for the adult population was much lower at 11%. However, according to Norwegian Social Research (NOVA) (2015), the research differs somewhat on the question of whether children and adolescents are experiencing increasingly more mental health problems, but the report points at important findings such as an increase in dysfunctional youth due

to anxiety and depression. In an article about time trends in the well-being of youth, Collishaw et al. (2004) found that the proportion of UK youths experiencing emotional problems increased from 10.2% in 1974 to 16.9% in 1999, with the highest increase in the period 1986–1999. The figure for conduct problems in 1974 was 6.8%, which increased to 14.9% in 1999. The researchers found less change in hyperactivity, but for boys there was some increase in prevalence (from 11.1% in 1974 to 16.9% in 1999).

A national health report shows that some but not all mental health problems seem to increase with age (NOVA, 2015). The report also shows that secondary school girls are two or three times as likely to report mental health problems compared to boys of a similar age. Patel et al. (2007) emphasise the many negative effects of mental health problems on the job opportunities, friendships and ability to form romantic relationships of those affected.

Assessment of mental health

According to Rutter (1967), the assessment of children's behaviour in the classroom dates back to the 1920s. However, the assessment of mental health problems among children is not a simple task; as Achenbach and Ruffle (Achenbach and Ruffle, 2000) put it: 'There are no litmus tests to determine precisely which children have behavioural or emotional disorders'. Still, many researchers have developed instruments to assess mental health problems, many of which are based on classification systems such as the Diagnostic and Statistical Manual of Mental Disorders, now in its fifth edition (DSM-5) (APA, 2016) or International Statistical Classification of Diseases and Related Health Problems, now in its tenth edition ICD-10 (WHO, 2016). One of these instruments is the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997). Compared to the Child Behavior Checklist (CBCL) with its 118 items (Achenbach and Ruffle, 2000), the SDQ with its 25 items is more compact and is similar in length to the original 26-item Rutter Scale (Rutter, 1967). However, short or long, the instruments aim

to yield valid and reliable information about children at risk of developing mental health problems. The SDQ items assess four symptoms—emotional symptoms, relationship problems, conduct problems and hyperactivity—covering both internalising and externalising problems. The SDQ includes a prosocial factor in addition to the four problem scales. Some limitations notwithstanding, the validity and reliability of the SDQ have been proved (Goodman and Scott, 1999, Goodman, 2001). However, there remains some uncertainty about the effect of the direction of wording (positive vs. negative) for some items (Rønning et al., 2004c) and the factor structure of the instrument (Goodman et al., 2010).

Quality of life

Even though the concept of QoL is now often associated with health problems, it was actually used in the social sciences before becoming popular in medicine. The term can be traced back to philosophers such as Aristotle and Kant (Diener and Suh, 1997). However, in the 1960s and 1970s, the concept of QoL began to be used in medicine (Jozefiak, 2009). While a diagnosis says something about a patient's disease, it is not necessarily informative about how the disease is perceived by the patient or how the patient's life situation is affected. The World Health Organization defines QoL as: 'Individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.' (WHOQOL, 1995, p. 1405)

This broad definition includes aspects beyond mere physical and mental health, such as a person's level of independence, social relationships, personal beliefs and relationship to his or her environment (WHOQOL, 1995). Based on this view of what constitutes QoL, six domains are described: physical, psychological, level of independence, social relationships, environment, and spirituality/religion/personal beliefs. Thus, QoL is a multidimensional construct covering physical, psychological and social aspects.

Assessment of QoL

QoL instruments are plentiful and diverse, with hundreds of instruments having been developed (Coons et al., 2000). The QoL research field shares many challenges with the field of bullying, such as the lack of uniform definitions and constructs, the use of single- item and multi-item measures and a general lack of robust theory on what constitutes QoL (Katschnig, 2006, Connell et al., 2012). Health-related QoL (HR-QoL) instruments are typically either generic or specific, as pointed out by Guyatt (1993). The generic instruments can be further divided into a) health profiles and b) preference-based instruments. The specific instruments can be categorised as a) disease-specific, b) population-specific, c) function-specific and d) condition- or problem-specific (Guyatt et al., 1993). In a review article, Ravens-Sieberer et al. (2006) identified more than 50 instruments dealing with the specific area of QoL in childhood and adolescence. While only 14 of these were included in the further analysis, the huge variation among the different versions is apparent. In terms of length, the number of items varied from 6 to 188, while the number of dimensions varied from 1 to 14. Some were aimed at a short age span of 4 years, while other covered up to 16 years. Obviously, the age span is related to respondent, where parents' versions in general cover greater age spans than children's versions. However, many of the self-report instruments still covered up to a 10-year age span. When the aim is to compare children or adolescents with a disease with those without a disease, researchers should choose among the generic QoL instruments. There is some evidence indicating self-reporting is the preferred method (Ravens-Sieberer et al., 2006). It is important to assess reliability and validity in QoL measures, and even though some instruments yield acceptable psychometric properties (Coons et al., 2000), many are probably not sufficiently validated (Lohr et al., 1996). In a large British community study, Roberts, Lenton, Keetharuth, and Brazier (2014) found that both physical and mental illness have a negative impact on HR-QoL. More severe conditions of depression, anxiety, panic and phobia yield a larger decrement in perceived QoL.

Comorbidity also results in reduced levels of QoL. Mental health problems are to a larger extent associated with reduced perceptions of QoL.

Aims of the thesis

The present thesis has two aims. The first is to investigate perceptions of bullying, particularly in the context of perceived severity of negative actions. The second is to compare two approaches to measuring bullying. As pointed out in the introduction, there are several problems related to the measurement of bullying, and commonly used methods are debated. Therefore, both methodological and substantial aspects of bullying are emphasised, an approach Marsh et al. (2009) call 'methodological substantial synergy'. In this thesis, the following research questions (RQ) are posed.

RQ1: How does the perception of the severity of negative behaviour and of the perception of the definition of bullying differ between groups, such as students of different ages and their teachers, but also between individuals?

RQ2: How does a multiple-item approach to measuring bullying perform compared to a single-item approach?

RQ3: How do the concepts of harassment and bullying relate to QoL?

Methods and materials

In this section, the Well-being in Tromsø survey (Rønning and Thorvaldsen, 2012) is described first, along with the methods for each of the four papers. The four papers presented in this thesis make use of data collected using both qualitative and quantitative methods.

The main study

The Well-being in Tromsø survey is a prospective, longitudinal survey conducted by The Arctic University of Norway (UiT) in a collaboration between the Department of Clinical Medicine and the Department of Education (Rønning and Thorvaldsen, 2012). The project started in 2012 with one pilot school and will continue to at least the summer of 2017. The study is geared towards investigating the concepts of bullying, harassment, mental health and QoL. A questionnaire of about 100 items is directed at students and parents, and a shorter version (about 75 items) is constructed for teachers' use. In other words, the study relies on a multi-respondent and multi-instrument design where the student is the unit of interest. In general, the aim of the study is to increase our understanding of how bullying and harassment affect mental health and the perception of QoL among children and adolescents. The aims of the Well-being in Tromsø survey are outlined in the project description (Rønning and Thorvaldsen, 2012) and cover prevalence estimations for engagement in bullying as bullies, victims, bully-victims or bystanders. Furthermore, the study aims at identifying relationships between bullying/harassment and well-being. The focus is the effects bullying has on mental health. The project will detail the current state of affairs regarding students' levels of well-being and mental health problems and will even implement and evaluate locally developed interventions.

Participation

The number of participating schools varies from four to seven. One of the initial schools was supposed to participate but was only able to produce partial data and left the project during the first wave. This school is removed from all analysis. Further one school left the project after the first wave, while three others joined after the second. About 2000 students, their parents and their teachers participated throughout the project. The schools differ in size from a little less than 200 students to more than 400 (which in the Norwegian context are very common

school sizes). The schools represent the city centre and surrounding areas but not rural districts.

In June 2016, three full waves of data collection and one wave of pilot data collection will be completed. The participation rates are rather complex because there are different schools involved in each of the four waves. There are also three participating groups and even some students who were not eligible to participate (some special needs classes, some foreigners' introduction classes and some classes that were unavailable for other reasons; see the flow diagram in Figure 3).The participation rates are as follows:

2013–2014: First wave (five schools)
Students: 66.5% (n=880)
Teachers: 72.5% (n=1005)
Parents: 58.5% (n=411)

2014–2015: Second wave (four schools, after one left the project)
Students: 71.0% (n=691)
Teachers: 91.9% (n= 907)
Parents: 55.7% (n=245)

2015–2016: Third wave (seven schools, after three new schools entered the project)
Students: 84.2% (n=1048)
Teachers: 88.0% (n=1095)
Parents: 54.7% (n=347)

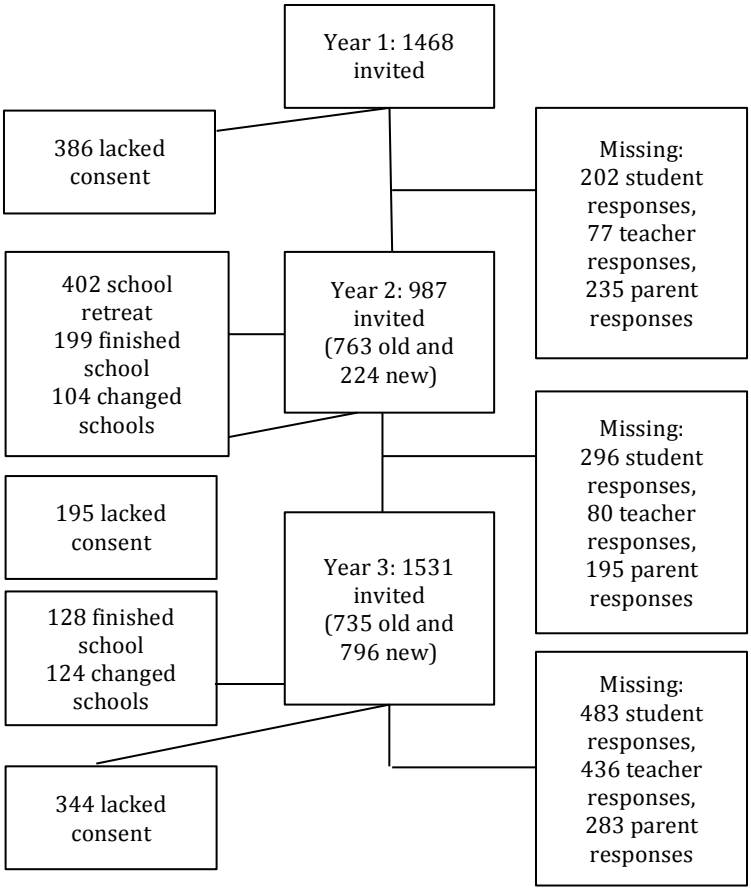

Figure 3: Flow chart showing participation and dropouts for the Well-being in Tromsø survey, years 2013–2015

The samples for the quantitative parts of the project comprise most of the university schools in Tromsø. A university school is an ordinary primary or lower secondary school where a contract opens for increased cooperation in research and development projects. The reason for selecting these schools was two-fold. First, this arrangement was thought to improve participation rates and engagement. Second, the Well-being in Tromsø survey is dedicated to school development, and it was believed that the university schools would be especially interested in this. It is challenging for both researchers and schools to maintain longitudinal studies, as fatigue is an ever-present danger.

The longitudinal research design of Well-being in Tromsø produces substantial attrition. Some causes of attrition are probably more problematic than others. Random attrition is less likely to produce bias compared to systematic attrition, where special groups of students choose not to participate. System-level attrition, when an entire school or an entire class drops out, is probably less problematic in terms of bias. It is then not the child that makes the decision not to participate but rather the teacher or the head teacher. Dropouts at the individual level are more problematic. It is possible that certain groups of children are more likely to drop out than others. Some attrition is probably due to common issues, such as lack of motivation or interest. Some unrealistic responses are also collected, also probably due to lack of motivation or interest, but it could be related to bullying involvement as well. Students involved in bullying may refrain from participating. However, such cases are probably few in number, as the dominant reason for not participating seems to be lack of parental consent. In classes where parental consent is high, there are hardly any students that do not participate. Some random attrition is probably due to students moving out of the school district or to logistical reasons. The sampling strategy included some primary schools and their corresponding lower secondary schools in order to be able to follow as many of the students as possible over all seven years. However, this turned out to be impossible as one of the lower secondary schools was unable to participate and yet another one left the project after year one. Therefore, at the present time approximately 75%–80% of the sampled 4th graders will be with the project through 10th grade. Furthermore, as the oldest students leave compulsory school they also leave the project. So far, no in-depth assessment of possible attrition bias has been conducted, but this will be increasingly important, as longitudinal studies will be conducted in the upcoming period.

Presentation of the four papers

The following section consists of a brief presentation of the four papers included. The methods are emphasised and the results presented.

Paper I: Understanding bullying: how students and their teachers perceive terms of negative conduct

The first paper takes group differences in the understanding of bullying as the point of departure. Over a long period, researchers have identified such differences between children of different ages, between students and teachers, between children and parents and between students and researchers. Much less emphasis has been placed on individual differences. Therefore, this study sets out to investigate individual differences in the understanding of bullying. Even though bullying criteria, namely the intent of negative behaviour, repetition over time and imbalance of power, are being investigated, the most emphasis is put on perceived severity. The fact that bullying encompasses a wide range of behaviour that must obviously be experienced differently in terms of perceived severity has not resulted in much research in this direction. However, a mainly Taiwanese research group has developed a 'perceived bullying severity scale' (Cheng et al., 2011b) that ranks negative behaviour in terms of severity. We follow up the finding that not much research has been done on the perceived severity of bullying behaviour in paper I. We use qualitative methods and focus on the differences in the perception of negative behaviour within groups and between individuals. Using focus group interviews with students in the 5th, 7th and 9th grades and their teachers, we explore how these groups perceive the severity of different kinds of harassment. To help compare the groups and to fuel discussion, we use 10 notes containing terms relating to different kinds of negative behaviour. The participants rank these and have to agree on the final list.

Focus group interviews are often conducted when a company, government office, organisation or researcher wants to address one or more specific issues (Morgan and Krueger, 1998, vol 1, p. 1). It is important to sample candidates who you believe will yield valuable information about the issues in question. As opposed to some other kinds of group interviews, the method is focused on a few predefined topics. The researchers must carefully consider the size and composition of the interview groups, the duration, the number of groups, the use of incentives, the method for capturing information and the interviewer's role. Even though not commonly seen in bullying research, focus group interviews have frequently been used in QoL studies. For instance, focus group interviews were used to assess aspects of HR-QoL in children and adolescents when constructing the KIDSCREEN and DISABKIDS HR-QoL instruments (Ravens-Sieberer et al., 2006). This was done in addition to using expert groups and literature reviews. The focus group interviews are important as they bring in the voice of the child or youth.

The data for paper I derive from five focus group interviews. As the idea was to compare age, it made sense to form age-homogeneous groups where both genders were equally present. We contacted 5th, 7th and 9th grade teachers who asked their students if they would like to participate and managed to recruit the desired sample. By recruiting openly like this, we hoped to get interviewees who had an interest in the topic. Four students, two boys and two girls, from each of the 5th, 7th and 9th grades agreed to participate in the interviews. One boy in the seventh grade group withdrew and was replaced with a girl. Furthermore, as we wanted to compare students with teachers, eight teachers from the same grades as the students were recruited. The teachers were divided into two groups. The teachers consisted of both males and females, but as one teacher from each group could not participate at the last moment, the teachers' groups ended up with just three interviewees each.

The topics for the interviews revolved around the understanding of the term bullying. In part one of the interviews, the candidates were given an activity where they ranked 10 notes describing negative conduct in terms of severity. The activity was designed to give comparable data and to fuel discussions about the severity of the examples of negative behaviour. The second part of the interview emphasised more details about the perception of severity and about how the candidates understood the three criteria of bullying.

As mentioned, during the interviews the participants were asked to rank 10 notes with terms describing negative conduct. The interviewees had to agree to a common list. The notes contained two general terms (bullying and threatening), two terms relating to physical bullying (kicking and hitting), two terms relating to cyberbullying (posting cruel pictures and negative comments), two terms relating to social bullying (backbiting and freezing out) and two terms relating to verbal bullying (teasing and harassing). When the list was completed, the interviewer asked the interviewees if anyone wanted to change the list. This way any disagreement was uncovered. Generally, the participants did not want to alter the list, but in some cases one or two of the interviewees seemed a bit uncertain.

All interviewees gave written informed consent to participate in the interviews (in addition to the general consent to participate in the Well-being in Tromsø survey). The author, who has training and experience in interview studies, conducted all interviews. An additional researcher (the project manager) joined one interview, mainly in an attempt to improve validity. In general, however, we did not feel the presence of an additional researcher was needed because the interviews were captured on video. The interview started with a little small talk to help the participants relax. The aim of the interview was clearly stated. For the teacher interviews, information was given in the context of sensitive student data, which we did not want the teachers to reveal. The interviews followed a very brief interview guide that included only some main topics. The discussions were

relatively open until the point where the topic was exhausted. A great effort was made to create a safe and open environment for the interviews. First, the groups were kept small and all students were classmates. Second, we chose a room for the interviews that the students knew well. Third, we started by stating that we were not going to talk about personal bullying experiences but rather about their thoughts about bullying. Fourth, the researchers actively supported the students, and where appropriate, humour was used to maintain a light atmosphere. Fifth, the students were informed about their right to abort the interview at any time without any questions asked. Talks with the teachers after the interviews revealed that the students had spoken very positively about the interview sessions. All data was treated respectfully and kept locked up when not in use. All interviews were transcribed using Incscribe v. 2.21.

From this study we learned that students of different ages did not differ that much in how they ranked the notes, but there was a considerable difference between students and teachers. While students ranked social and cyber forms of negative behaviour as the most severe, the teachers viewed physical harassment as the most severe. Furthermore, we identified large discrepancies in how individuals perceive the severity of different kinds of behaviour. While some students argued that any kind of kicking was to be seen as bullying, other students argued that the strength of the kicking needed to reach the level of severity where the perpetrator would not go on anymore. If the perceptions of bullying and negative behaviour differ so much not only between groups but also between individuals, it is necessary to ask if the term bullying is adequate for the purpose of measurement. The commonly used single-item 'Have you been bullied in the last two or three months?' coupled with a frequency-based response scale probably capturing a very heterogeneous perception of bullying. In this case, it is more suitable to use multiple-item scales, as they are likely to capture more of the nuances in the bullying term.

The paper provides four conclusions. First, the students have very different perceptions of what constitutes more severe actions and what constitutes less severe actions. Second, the two teacher groups ended up with rather different lists of ranked negative behaviour. It seems as though teachers do not have a consistent view of what are the most severe kinds of bullying actions either. Third, in terms of the ranking, there seems to be a discrepancy between actions students regard as severe and what the teachers regard as severe. These results indicate there is a substantial subjective component in the perception of bullying. Fourth, the students did not comply uniformly to the three criteria of bullying. Instead it was obvious that in particular they perceived the issue of repetition differently from what is common in research. If an action was regarded as severe, the need for repetition was reduced, even to the extent that only one incident was regarded as enough. The results suggest that the assessment of bullying should be further developed and new approaches to measuring bullying should be considered. One such approach could be to couple harassment inventories with mental health instruments.

From paper I we learned that the perception of the severity of bullying terms differ both between individuals and between groups. The interviews gave strong evidence about the differences in how peers evaluate various forms of negative conduct. The note activity gave the opportunity to assess group differences, as we could compare the ranking lists of the five groups involved. Teachers seemed to view physical forms of bullying as more severe than the students, who viewed digital and social forms of bullying as more severe than did their teachers. All five groups placed the term 'bullying' at the top of their lists, clearly indicating that the term was to be viewed as more severe than any of the more concrete forms of negative conduct.

Methods used in survey studies (papers II, III and IV)

While the first paper is based on qualitative data, the other three rely on quantitative data. Paper II validates the 23-item harassment inventory, while papers III and IV deal with the relationship between either bullying or harassment and QoL. Analyses are conducted using IBM SPSS v. 22/23 for Mac, Mplus v. 7.0 for Mac and R build 3.2.2.

Paper II: Assessing validity and group invariance for the Well-being in Tromsø harassment inventory using confirmatory factor analysis and exploratory structural equation modeling

Paper II deals with validation of the 23-item Well-being in Tromsø harassment inventory. Reliability, convergent and discriminant validity and group invariance were assessed.

Reliability might be seen as an estimate of how close our observed scores are to the true scores. If our measure corresponds to the latent trait perfectly, then the reliability is 1. However, this rarely happens in real life. There are several possible approaches to estimate reliability, such as test-retest correlations, alternative forms, split-half and inter-item consistency. This paper relies on the latter form of reliability, which is assessed using both Cronbach's alpha (CA) and McDonald's omega (ω). CA is by far the most commonly reported measure of reliability, but its position is questioned (Sijtsma, 2009, Revelle and Zinbarg, 2009). Other measures for inter-item consistency or reliability have been proposed, one of which is McDonald's omega. Actually, there are different versions of this (Revelle and Zinbarg, 2009). Paper II uses the ω_{total} (ω_t), but the $\omega_{hierarchical}$ (ω_h) would also be relevant. The difference between these two coefficients is that the ω_t is calculated from the squared factor loadings from the common factors (F1–F4 in Figure 4), and the ω_h is calculated from the squared factor loading from the general factor (g in Figure 4). Therefore, the ω_t is a measure of the variance accounted for by the

common factors, while the ω_h is a measure of the variance accounted for by the general factor. The choice of coefficient should rely on theory and on what aspects of reliability the researcher intends to assess. In this case, the choice of ω_t over ω_h was made as the constructs represents a multi-dimensional harassment scale where the separate scales would be used in further research. However, both ω_t and ω_h would yield acceptable values.

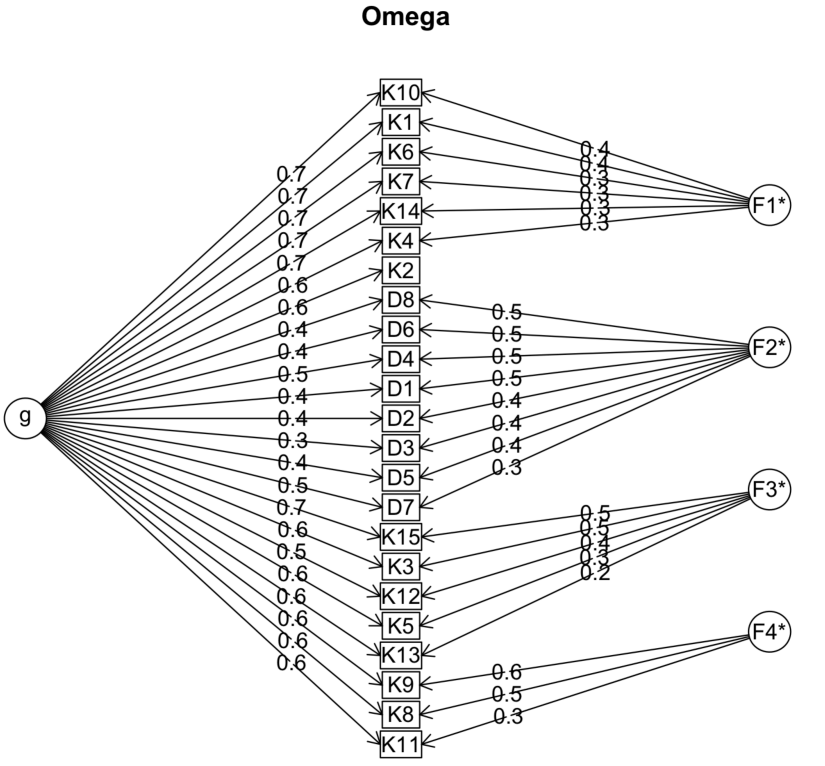

Figure 4: Factor structure of the 23-item harassment scale. To the left are factor loadings onto the general factor, and to the right are factor loadings onto four common factors.

Convergent validity

According to Shadish, Cook, and Campbell (2002), convergent validity is the extent to which the measure in question relates to other measures one would expect it to relate to, despite that there might be irrelevancies related to the measures (p.361). The correlation between two measures reflects the degree to which these capture a common construct (Carlson and Herdman, 2012). Paper II establishes some proof of the convergent validity of the 23-item harassment inventory. This is achieved by correlating the four factors with the construct consisting of four global items of being bullied at home or at school and being cyberbullied at school or at

home. Theoretically, both these constructs are subcategories of general aggression and should be expected to correlate.

Discriminate validity

Measures employed in psychological assessment should normally display adequate discriminant validity. However, the concept of discriminant validity is not uniformly understood. For instance, when explaining this concept in a textbook about psychological testing, Domino and Domino (2006) refer to Campbell and Fiske, stating that '(…) a test should not correlate significantly with variables that it ought not to correlate with (…)' (p. 56). Sometimes, one sees papers dealing with discriminant validity that correlate their measure with a measure it would not be expected to correlate with. For instance, a paper about the discriminant validity of well-being measures found that optimism was discriminant from negative affect. While at first glance this might seem sensible, there is actually a criterion whereby the two measures should be related in some way (Shadish et al., 2002, p. 364). Often, one has several measures that have some overlap to choose from. The question is what makes them distinctly different from each other. As the authors state in a footnote, '(…) it is the overlapping content that usually leads us to mistake one construct from another; we rarely make construct validity mistakes about highly dissimilar constructs' (Shadish et al., 2002, p. 364). In paper II, discriminant validity is assessed by correlating the 23-item harassment inventory with the SDQ section about peer problems. Harassment happens between peers and is thus one aspect of peer problems. However, peer problems do not necessarily mean harassment, and all peers are not necessarily friends. Therefore, it should be possible to separate the two constructs. Furthermore, in factor analysis, discriminant validity is often used in the context of separating the factors from each other. In paper II, factor models are assessed and a four-factor model of physical, verbal, social and digital kinds of harassment is found to fit data the best. These four factors are distinguishable from each other in the ESEM approach and

to a much lesser degree in the CFA approach. If factors are correlating at too high levels, then it is questionable if these factors really are distinguishable.

Group invariance

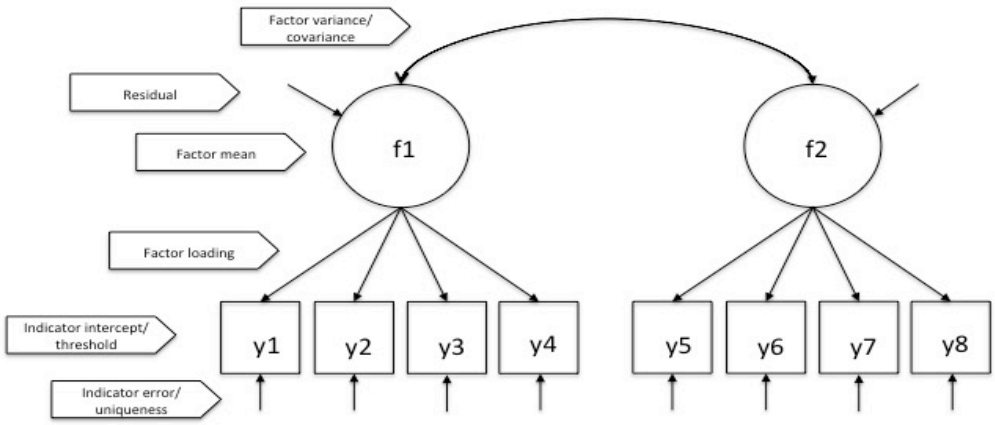

Figure 5: SEM model with possible parameters to manipulate in invariance tests

The last aspect of validity assessed in paper II deals with group invariance. A measure that is employed with the purpose of comparing groups must of course be fair for the relevant groups. For instance, if younger children do not fully understand a complex term and older children do, then the comparison of younger and older children is obviously invalid. Put another way, the younger and older children are not being measured by the same construct. In paper II, group invariance is assessed using two different approaches. First, for the cases of academic achievement and gender, multi-group models involving nested models of increasingly restrictive models are used. Second, for the cases of age and socio-economic status, multiple indicators and multiple causes (MIMIC) models are used

to assess group invariance. In the nested multi-group approach, one starts with fitting a factor model for each of the relevant groups separately, and then restrictions are placed on certain parameters in incrementally more restricted models derived from the baseline model. Following Marsh et al. (2009), configural invariance implies that there are the same number of factors with the same structure of indicators for all groups compared. Looking at Figure 5, this would mean that the same model is supported for the groups compared. Weak factorial invariance is assessed by making factor loadings equal across groups. Equal factor loadings would mean that the construct is measured by the same units for the groups compared. If weak factorial invariance is achieved, the next step is to assess strong factorial invariance by, in addition to the equal factor loadings, making the intercepts (or thresholds when dealing with categorical data) equal across groups. This form is often labelled scalar or strong factorial invariance. Equal intercepts or thresholds reflect that the latent means of the model influence the observed means in the same manner across groups. This step is essential if one wants to compare latent means. The last step is to assess strict factorial invariance, which involves the addition of equal uniqueness. Item uniqueness relates to the item's reliability. For analyses with observed variables, it is desirable to have equal patterns of item uniqueness across groups, while an item's uniqueness is not important for analyses with latent factors because these are modelled without measurement error. The 13-step taxonomy of Marsh et al. (2009) covers both the structural and measurement parts of the model. This would include factor means and factor variance/covariance. In paper II, population homogeneity is not emphasised; therefore, the last steps of invariance assessment is left out. When using the MIMIC approach, one can only assess invariance of indicator intercepts (or thresholds) and factor means. For the other parameters invariance is assumed, but not assessed (Brown, 2006, p. 305). Thus, the MIMIC approach tests group invariance in a less rigid manner than the multi group CFA (or ESEM) approaches. On the other hand, covariates representing groups, which contains several levels, for instance several grades in the case of age, are more comprehendible with the

MIMIC approach. Paper II gives a relatively thorough discussion about the assessment of group invariance, and about the problematic issue of model fit.

The second paper aims to validate the 23-item harassment inventory. If the harassment yields sufficiently strong evidence for its psychometric properties, it would be possible to use this inventory when exploring new approaches to measuring bullying. In the study, we use both CFA and ESEM in an attempt to validate the inventory in terms of reliability, convergent and discriminant validity and invariance across groups. Furthermore, as there is more than one suggested factor structure underlying bullying, we compared several of the most commonly suggested models. We found that a four-factor ESEM model fits our data best. This implies that the four factors theoretically suggested to underlie the harassment inventory are supported. Actually, the CFA approach also supports the four-factor structure, but when using this method the correlations between factors become problematically high. This fact, in addition to the superior values for the fit indices, makes the ESEM model more acceptable. All models fail to pass the chi-square test of absolute fit, a result commonly experienced in factor analysis and other SEM models. Other fit indices are good for the final ESEM model. In terms of reliability, both the McDonald's omega and the Cronbach's alpha yield acceptable to good values: ω_t = .80–.89 for the four subscales (ω_t = .94 for the total scale) and ω_h = .75 for the total scale. The CA yields values of .79–.85 for the four subscales (and .93 for the total scale). In terms of convergent and discriminant validity, the results are all acceptable or good with correlations giving acceptable values. Therefore, these aspects of validity are supported. However, invariance across groups is not uniformly supported. The tests regarding gender, socio-economic status and academic skills are supported, and the instrument seems invariant across these three aspects. Therefore, comparisons between boys and girls, between students from high- and low-SES homes and between high- and low-performing students are all supported. However, the issue of comparing students of different ages is more problematic, as the invariance test fails in this regard. Therefore, one should

be careful when conducting such comparisons because the inventory is measuring different construct for younger vs. older students. This last finding is interesting, as other researchers have found younger students to be less restrictive in their definition of bullying than older children. Our results support this finding with strong statistical evidence.

Paper III: Cyber Harassment and Quality of Life

The third paper evaluates the relationship between bullying and harassment variables. The paper gives basic information about how the measures of bullying and harassment relate to QoL and the prevalence of bullying and harassment. We compare both cyber and traditional forms of bullying and harassment and look at how these forms of abuse correlate with QoL. Descriptive data in the forms of frequencies and percentages are given. Pearson's correlations are given as an estimate of the relationship between two variables. A chi-square test of significance is conducted and its result given along with the correlation or mere descriptive value. The level of significance is set at .05. Cohen's d is computed when comparing means. This effect size indicates the strength of the relationship between two variables. It measures the difference between two means by dividing the difference between the means by the pooled standard deviation s_w $d = \frac{\overline{X_1} - \overline{X_2}}{s_w}$.

This paper reports prevalence rates for bullying, harassment and QoL for the first wave of 878 students (66.5% participation). Cyber harassment and cyberbullying are compared with their traditional counterparts and the effect size of bullying and harassment in relation to QoL is determined. Bullying is measured with four items: being bullied at school, being bullied outside school, being cyberbullied at school and being cyberbullied outside school. Harassment is measured with 23 items covering various forms of negative conduct, four physical, five verbal, six social and eight cyber. For both bullying and harassment items, the cut-off is set at 'two or

three times a month' or more often for something to be regarded as either bullying or harassment (although we are somewhat sceptical regarding the dichotomising of variables). QoL is assessed using the KINDL questionnaire with its 24 items on six different subscales of QoL: school, family, friends, emotional health, physical health and self-esteem. The response scale is a five-point Likert scale. The paper presents scores for both the overall perception of QoL and for each subscale. The results show that 10.4% of the students report being bullied in any form (traditional or cyber), and 31.2% report being harassed in any form (physical, social, verbal and cyber). The prevalence of harassment is three times that of bullying. When comparing the figures from this study with national figures, it is important to remember that the methods of prevalence assessment are different. Normally, only one item is used (being bullied at school), while in the case of the present study four items are used. The broader coverage of both types (traditional and cyber) and sites (school and outside school) of bullying is probably the main reason for the more than doubled prevalence estimates in this study. Furthermore, in the case of being bullied vs. not being bullied, the result is not significant ($p=0.58$), while in the case of being harassed vs. not being harassed the result is significant ($p=0.04$). In terms of gender, 8.4% of the girls and 9.4% of the boys have been victims of traditional bullying and 1.7% of the girls and 1.8% of the boys have been victims of cyberbullying. The gender differences are very small, a finding that deviates from the normal finding of boys being more involved as both bullies and victims compared to girls. The traditional forms of bullying are much more prevalent than cyber forms, and this is true whether one chooses the bullying items or the harassment items. Most students that are subjected to cyberbullying/harassment are also subjected to the traditional forms of bullying. The effect of bullying on the students' perceived QoL is substantial. On the QoL total scale, the effect size is $d=0.96$ for traditional bullying and $d=0.91$ for cyberbullying, both of which are significant ($p<0.001$). According to King, Rosopa, and Minium (2011, p. 267), a value of .20 signifies a small effect, a value of .50 signifies a medium effect and a value of .80 signifies a large effect. Regarding the

six subscales of QoL, it seems that the two forms of bulling yield different results. Traditional bullying seems to mostly impact physical (d=0.72) and emotional (d=0.72) QoL and to have the least impact on self-esteem (d=0.40). Cyberbullying seems to have the most impact on emotional (d=0.79) and school (d=0.74) QoL. Cyberbullying seems to have the least impact on physical QoL (d=0.40). Interestingly, when comparing the use of cyberbullying to the use of cyber harassment, it is evident that the latter has the biggest impact on overall QoL: d=0.63 for cyber harassment compared to d=0.39 for cyberbullying. However, the result for cyberbullying is not significant (p=0.12), and therefore the findings should be interpreted with caution.

To conclude, there is a three times the amount of harassment compared to bullying. The cyber forms of bullying and harassment are much less prevalent than their traditional counterparts. The impact of traditional bullying on QoL is similar to the impact of cyberbullying on QoL. However, when comparing the impact of cyberbullying and cyber harassment on QoL, surprisingly cyber harassment is more strongly associated with reduced QoL than cyberbullying. In other words, the expected stronger impact of cyberbullying on QoL compared to the impact of cyber harassment was not found. It is of course important to assess the significance of the findings when drawing conclusions, as some comparisons are not statistically significant.

Paper IV: The impact of cyberbullying and cyber harassment on academic achievement

To gain more experience with the validated harassment inventory, paper IV uses the cyber sections of the harassment and bullying inventories in combination with two background variables and part of the KINDL measure. This paper addresses the impact of cyberbullying or cyber harassment on academic achievement. SEM models are used to assess both the direct and indirect effects and to assess the amount of measurement error in both the cyberbullying and cyber harassment

measures. To start with the last issue first, the assessment of measurement error is rather straightforward in most cases. In the common factor model, factor loadings indicate the strength of the influence of the latent trait on the indicator. With a loading of 1, all the variance of the indicator is due to the common factor. However, in nearly all cases, the loadings will be less than 1. In this case, the part of the variance not accounted for by the common factor is uniqueness or error. Uniqueness is the amount of the variance accounted for by some irrelevant latent factor. Error is the amount of the indicator variance due to measurement error, either systematic or random error. Psychological measures in general have some amount of measurement error (Shadish et al., 2002, p. 401). Errors could stem from factors common to some indicators that are irrelevant to the construct in question or from indicators measuring aspects not common to any other indicator. Error could take the form of either systematic or random measurement error (Brown, 2006, p. 212).

In this study, we even explore the relationship between cyberbullying and academic achievement. We utilise both a model based on the two global items of being cyberbullied at home or at school and a model that is comprised of eight items of cyber harassment. In terms of methods, we use SEM path analysis to assess the strength of the relationships between cyberbullying or cyber harassment and academic achievement. Interestingly, the choice of instrument did not seem to matter. We found more or less the same effect of cyberbullying on academic achievement whether we used the global items of cyberbullying or the eight items relating to concrete cyber harassment events. For instance, the impact of cyberbullying on QoL at school is r = .49, while the impact of cyber harassment on QoL at school is r = .44. This finding is line with what was found using the descriptive approaches in paper III. The effect of QoL on academic achievement, after having controlled for cyberbullying and cyber harassment, is r = 0.33 for bullying and r = .30 for harassment. Furthermore, we found that the effect of cyberbullying (or cyber harassment) was largely mediated by perceived QoL at

school. In other words, being subjected to cyberbullying decreases a person's well-being at school and subsequently that person starts to perform worse. In addition to these findings, we identified a significant amount of measurement error, more for the cyberbullying items than for the cyber harassment items. This is an argument for choosing a harassment inventory over the measuring of bullying.

Methodological discussion

According to Shadish et al. (2002, p. 34), validity is not a property of designs or methods but rather of inferences. The question is if our inferences hold based on available data. Validation relates to our strategies for securing the best possible evidence for our inferences. Kleven (2008) argues that validity in qualitative and quantitative research shares many similarities and that the basic concepts are the same. One typology of validity consists of four kinds of validity: *statistical conclusion validity, internal validity, construct validity and external validity* (Shadish et al., 2002, p. 38). Statistical conclusion validity reminds us of the importance of not only the significance of our findings but also of the substantiality of our results. Significant findings might have little importance or impact on the issues researched (for instance, small effects sizes). However, significance is important as this aspect reflects to what extent the findings could be the result of chance. Internal validity is about causal inferences and to what extent these are justifiable. Construct validity is about the inferences we draw from an analysis of our indicators and to what extent these represent the underlying construct. External validity is about our inferences about generalising our findings to other groups, situations or times, treatments and measurements. The following sections discuss the validity of our inferences in the four papers in the present thesis and implications for research design.

Validity and focus group interviews

We used several strategies to improve the validity of our inferences in paper I. We conclude that there are different perceptions of severity and definitions of bullying

both at the individual level and between groups. We present a list of perceived severity of negative actions across groups. Here, validity is a matter of to what extent we believe in our findings. Creswell (2013, p. 251) suggests eight strategies for securing the best possible validity of inferences. In short, these are *time and persistence, triangulation, peer review and debriefing, the negative case analysis, clarification of researcher bias, member check, rich descriptions and external audits*. Creswell encourages researchers to make use of at least two of these strategies. Efforts were made to improve the validity of our inferences using several of Creswell's strategies. First, and in terms of time and persistence, the school where the interviews were conducted was the pilot school. We therefore had rather in-depth knowledge about the school after several meetings with the leadership, teachers, parents and students. Second, and in terms of triangulation, during the interviews both students and teachers undertook a note activity. The subjects were asked to rank 10 notes containing terms relating to negative conduct. This activity was chosen for several reasons. One reason was that it gave the researchers another source of data in an attempt to increase validity. Results from the note activity allowed the research group to analyse the data together with findings from the interviews. Furthermore, the comparison between groups would probably be more precise and interpretable. The hope was that the activity would fuel discussion, allowing the participants to concentrate on something concrete. Third, and in terms of peer review and debriefing, video was used to capture the interviews. Video is often more informative than mere audio as a method of capturing data, as researchers are able to interpret non-verbal communication (Roschelle, 2000). The use of video also helps in identifying the participants. Children in particular are sometimes difficult to identify based solely on audio, as boys and girls are often similar in their tone of voice. In addition to the video, field notes were used to document important events during the interview. Another use of field notes was as a means for the researchers to note down their reflections during the interview. Another approach in terms of peer review and debriefing was to include an additional researcher in one of the interviews. However, we

concluded that video was sufficient to validate what went on during the interview. Fourth, and in terms of member checks, we met with the teachers after the interviews and discussed our findings and conclusions. Thus, the teachers were given the opportunity to comment on our analysis. This session did not result in any alterations of our findings. In the case of the students, we did not open the floor for any reliability checks. We were uncertain about to what extent the students were able to track their comments from during the interview. It was important for us to capture the immediate and intuitive responses of the participants. Interestingly, the last point in Creswells' list, the audit, might be seen as performed by the anonymous reviewers who critically assessed paper I. Having external experts scrutinising the text did indeed help improve overall quality.

Challenges with validity and research design when using focus groups

As evident from the interviews in paper I, things do not always go as expected. Even though we tried to ensure the composition of the groups was balanced with equal numbers of male and females, due to the hectic nature of school life some participants suddenly became unavailable for various reasons. To some extent, it could be argued that what was planned as a strategic, purposeful sampling approach (Creswell, 2013, p. 100) where variation in the sample was important (Emmel, 2013, p. 38) became a convenience sample based on available participants. However, because we were able to maintain participants representing both genders and because we lost no more than one participant in any group, it still seems fair to label the sampling as purposeful. The use of purposeful sampling is important in focus groups because the researcher aims to get a breadth of views on the topics investigated. With less strategic sampling methods it is challenging to secure the oft-needed diversity of opinions, experiences, values and backgrounds (Morgan and Krueger, 1998, vol. 2, p. 57).

Validity in quantitative approaches

Papers II, III and IV share many validity concerns. This section deals with some of the most important issues, many relevant to two or all three papers.

Discussion of statistical methods

Papers II, III and IV report descriptive data and give results of significant tests and effect sizes. Paper III is particularly focused on such analysis. Even though the analyses in this paper rely on traditional and less complicated methods, validity is equally important. Paper III relies on both significance tests and effect sizes to improve statistical conclusion validity. For instance, with the sample of 876 used in most analyses in the paper, the significance of findings is often achieved. The effect sizes provided are well suited to evaluate whether the findings are substantial. Paper III relies on Cohen's d. For the SEM path models, the path values signify the strength of relationships between relevant concepts. Non-significant paths are omitted from the figures and results throughout.

The null hypothesis significant test (NHST) is probably one the most commonly reported statistic. Alarmingly, in a review of 250,000 p-values reported in various articles Nuijten, van Assen, Epskamp, and Wicherts (2015) found inconsistencies in about half of the articles and severe errors in about one out of seven. These findings are not new; p-values, even those in the present thesis, are thus prone to error. Even though efforts have been made to ensure correct p-values, the research of Nuijten et al. reminds us of the fact that significance tests are common sources of error.

Internal validity

As pointed out by Shadish et al. (Shadish et al., 2002, p. 53), there are many uses of the term 'internal validity'. They argue that the original concept was not about reproducibility, inferences about the target population, measurement validity or

whether the researcher investigates what he or she thinks or not. Rather, internal validity is about causality. Normally, causality builds on correlations; but in addition to pointing at some relationship between two variables, direction is examined. If variable A is thought to infer something about variable B, then A should precede B. Furthermore, possible confounding variables must be accounted for and their effect ruled out. Validation is then more about ruling out possible confounding effects, a difficult task in most cases. Some research designs are better suited for assessing internal validity. In particular, the randomised controlled trial (RCT) design is often regarded as superior. The Well-being in Tromsø survey does not rely on an RCT design. No other study of bullying known to the author utilises a fully randomised controlled trial, but there are several examples of randomisation at the school level (Ttofi and Farrington, 2009). The problem with randomly sampling students is that they belong to a group (class) from which it would be difficult to separate them. To start an intervention for just some students in a class would be meaningless. For instance, if increased supervision were an important part of the intervention, it would be difficult to only address students in the experiment group. The mere existence of adults in the schoolyard will of course affect all students. Furthermore, it would be problematic for ethical reasons to overlook some students' engagement with bullying, while taking action to stop others. In the Norwegian context, most schools are actively working to provide a safe and healthy school environment for their students, and as a result it is often difficult to separate the effects of an intervention from the effects of other efforts at the school. The RCT is therefore perhaps not a very suitable design in the context of school bullying. Olweus (2005) suggested an extended selection cohorts design to measure bullying prevalence. In this design, a comparison between age groups is made by first establishing a baseline for all grades involved and then in the following year comparing the result of a grade with the prevalence figures for the same grade last year. The group is not compared with itself one year earlier but with the students in the next grade up. As the study progresses, it becomes possible to compare groups that are also involved in the intervention. For instance,

a fifth grade class that has been enrolled for a year might be compared to last year's fifth grade when that class was enrolled for a year. Olweus argues that this particular design helps to rule out some of the possible confounding variables influencing affecting the measurement of bullying. Olweus specifically points to two issues: the effect of maturation and differences in characteristics between the experiment group and the control group. Comparing groups from the same grade controls for maturation. Experiences from the Well-being in Tromsø survey point to the fact that classes often differ substantially in many important criteria, such as gender composition, students receiving special education and students' academic achievements. Olweus further argues that the design partially protects against selection bias, as the cohorts belong to both baseline (control) and intervention groups. He also argues that in terms of attrition, one could exclude students if data are lacking to correct for possible bias due to attrition. This is probably a bit too simple of a solution, as some kind of analyses of attrition should be carried out to control for possible bias. Olweus analysed test-retest effects earlier and found that such effects are small (Olweus, 2005). Unfortunately, there is a lack of peer-reviewed reports to back up his claims (Drugli and Eng, 2014), and as he himself states, the extended age cohort design is underused (Olweus, 2005). Possible test effects have not been sufficiently assessed and constitute a possible bias vis-à-vis age cohort designs (Eriksen et al., 2014). For instance, it is possible that students alter their perception of what constitutes bullying during the intervention. If so, the construct assessed before the intervention is somewhat different from that assessed after. Therefore, more work is needed to ensure that this particular design is appropriate.

When suggesting that bullying and harassment have an effect on perceived QoL, bullying at year one is regressed upon QoL at year two. This is done to facilitate the evaluation of directions of effects. Bullying precedes the perception of QoL. However, several possible sources for bias might be part of the analyses and SEM models. First, it is possible that events that happened during the data collection

influenced the students' responses. News stories, school events, major peer conflicts, etc. might indeed influence students. As more data is collected, the effect of possible history bias will be easier to assess, for instance with the extended cohort design. Available data from the National Pupil Survey may also be used to control for history effects, but there are limitations to such an approach. The two surveys collect data a few months apart, and while this is a requirement in this case, it also means that students are a bit more mature in the latter survey (Well-being in Tromsø). Second, there are methodological differences between the two surveys, which makes it a bit difficult to compare results. Maturity is also a possible source of bias, and again, this possible threat to validity will be easier to address when more longitudinal data are analysed. Maturity is rather well assessed with the extended age cohort design. Regression to the mean is yet another possible bias. When using extreme scores for bullying, the regression to the mean is a known effect where the scores on other variables tend to approach the mean. It is difficult to protect against the regression-to- mean effect, but as the two constructs of bullying and harassment are used, it is possible to compare these, for instance in terms of how extreme responses are. Test effects probably influence the analyses less, as the schools did not follow any special intervention and because the two waves of data collection occurred one year apart. As the project has moved into a phase where some schools are starting school-based interventions, test effects might be more problematic because students' perceptions of bullying and harassment might change. Furthermore, it is possible that the terms used or how we measure these terms change over time. This is also an issue it is possible to address with longitudinal data, for instance using SEM models.

Social desirability bias relates to the well-known effect where respondents answer in ways they regard as more correct, beneficial or more favourable. When working with sensitive self-report data, the evaluation of social desirability bias often becomes important. Social desirability has been addressed in bullying research

(Obermann, 2011, Beran et al., 2012, Oh and Hazler, 2009). Solberg and Olweus (2003) argue that social desirability is a minor problem in their research, but it is advantageous to further assess this possible source of bias. All in all, there are some possible biases that need further investigation in future Well-being in Tromsø studies.

Construct validity

The use of constructs is common when measuring aspects of human life. Normally, one must use questions about observable behaviour to measure latent traits. If not, one must rely on the respondents' knowledge about the trait under investigation. Rarely one can expect respondents to keep a precise understanding. Constructs describe latent traits, and based on these we develop items. Of course, it is crucial that the construct descriptions are as precise as possible. Construct validity is at the core of assessing the relationship between trait and construct. Shadish et al. list no less than 14 threats to construct validity (Shadish et al., 2002, p. 73). Some threats concern the limitations of how the constructs are operationalised, for instance that one never can capture the trait in question perfectly but rather that one can capture only a part of the construct and also aspects outside the construct. Other threats concern respondent bias, for instance how a control group might be encouraged to over- or underperform if they know that they do not get the treatment. While many of the 14 threats are relevant for the papers here, the quasi-experimental design of the Well-being in Tromsø survey makes some of them less important. Four threats are further discussed below.

The *inadequate explication of constructs* is highly relevant in bullying research. This threat relates to the danger of not correctly formulating the aspects being measured. In other words, there is a danger that there exists a distance between a construct and its operations. The complex nature of bullying, normally including the three important criteria of intentional negative behaviour, repetition/duration and imbalance of power, make the explication of the construct difficult. Normally,

repetition and duration are measured but not intentional negative behaviour or imbalance of power. The harassment inventory is thought to be a construct of physical, verbal, social and cyber forms of negative behaviour, but more work on this issue is needed to be certain about the appropriateness of these four factors. However, the use of both CFA and exploratory structural equation modelling (ESEM) suggest that the four factors describe the construct relatively well. However, the results of these analyses are based on the development of 23 kinds of harassment, and other ways of making up the inventory might have tapped the construct more precisely. Related to the inadequate explication of constructs are the two issues of *construct confounding* and *mono-operation bias*. The first refers to the fact that factors not readily known to the researcher are part of the construct without being included in its description. The second refers to the fact that when using only one operation of the construct, one will in most cases reduce construct validity as it will not cover the theoretical concept perfectly. There might very well be confounding elements in the constructs of harassment, but as mentioned, this has not been researched thoroughly. Furthermore, in the Well-being in Tromsø survey, multiple operations are used as means to improve validity. Multiple time points and the use of both bullying and harassment constructs should add to the construct validity in this regard. Mono-method bias refers to the fact that methods themselves might influence the results, and this is especially relevant when using only one method. The papers in the present thesis employ multiple methods, as data from students, teachers and parents are collected. However, the analyses in the present thesis rely to some extent on mono-methods. On the other hand, both the SDQ and the KINDL instruments have items worded in both positive and negative directions, which can help protect against mono-method bias.

External validity

To what extent research findings are relevant to other populations in other settings with other treatments or with other outcomes is often important issue. External validity is thus about generalisation. Threats related to five possible

causal relationships should be assessed. These relationships have to do with *units, treatments, outcomes, settings and possible mediation* (Shadish et al., 2002, p. 87). For instance, in terms of units it is not necessarily the case that a causal relationship found among girls will be seen among boys. As data for the present thesis is collected from a non-random sample, generalisation must be considered in this context. No absolute claim about external validity is possible, but as the differences between schools in Norway are traditionally regarded as relatively small (Nusche and et al., 2011), it is possible to make a partial claim. However, more research using stratified samples should be conducted.

Sampling issues

The validation of instruments used in quantitative research might often be seen as a two-step approach. First, in most types of validation it is necessary to collect data. Therefore, research design and sampling considerations are important issues to secure the best possible data for the purpose. Second, based on the available data, statistical techniques are employed to give information about the appropriateness of various forms of inferences. For instance, if inferences of generalisation are an important aspect of the research at hand, then random sampling is the best strategy (Shadish et al., 2002, p. 91). The data for papers II, III and IV are not based on a random sample, but rather the university schools were chosen as a target group. It is possible that these schools are somewhat different from other schools, but in terms of socio-economic status and academic achievement among students, the schools are probably not very different from most other schools in Norway. This means that the results of the validation are relevant to researchers who want to use the inventory for other schools, but more studies involving other samples should be carried out to improve the strength of the assumption about generalisability (Shadish et al., 2002, p. 92). Besides the limitations due to sampling strategy, attrition is an important problem to consider. In general, the participation rate for the Well-being in Tromsø survey is around 70% and a bit below for some cohorts. Generally, participation is better for

younger students than for older students. Furthermore, attrition is rather substantial, as discussed earlier. There is no way of knowing if students participating in the study differ from those not participating in important areas, as hardly any information about the non-participants is available. The lack of consent from parents is the dominant cause of attrition, while actively denying participation is much less frequent. It is likely that the lack of consent from parents is mainly due to logistical reasons, such as parent forgetting to reply, but also that the non-anonymous nature of the study puts them off. Some low participation rates are possibly due to less rigorous teacher involvement. Very few students who were enrolled in the project left during the first three years without an obvious cause. Such causes are mainly related to students moving out of the school district, students leaving 7th grade to continue at a school outside the project or leaving the project after finishing lower secondary school. These last kinds of attrition are random and should not yield any significant bias in terms of our findings. However, there is reason to be somewhat concerned about the amount of students without consent among the older students (lower secondary).

Concerns when using SEM analysis

There are many pitfalls when using SEM analysis. Kline (2011, p. 356) lists no less than 52 possible errors one should avoid. One very important and frequently discussed issue is the assessment of model fit. Of the many relevant problems in this regard, I highlight two—the issue of the significant chi-square (χ^2) test of absolute fit and the choice of fit indices and corresponding cut-offs.

Quite often, the results of an χ^2 test are given with little consideration of what a non-significant χ^2 represents. For instance, in an article about factors impacting young students' performance in problem solving, Dermitzaki, Leondari, and Goudas (2009) assess a SEM model consisting of an 8-item scale. They conclude that the model is good and that the result of the χ^2 test is significant at the 0.05 level (with a sample of 168 students). The reporting of significant χ^2 values is often

either misinterpreted, as in the example above, or is ignored. Still, significant χ^2 results are common and do actually imply a misfitting model. In the case of nested model testing, the use of χ^2 is often employed to assess if the more parsimonious model fits as well as the less parsimonious one. The χ^2 difference test is one common approach to assess nested models, but as pointed out by Millsap (2007), the baseline model should yield a non-significant value if further comparison is sensible. This important fact is often ignored, for instance in the report on the Health Education Impact Questionnaire by Elsworth, Nolte, and Osbourne (2015). In our assessment of model fit, the χ^2 test is always conducted and commented, and when moving on with an χ^2 significant model, the rationale and method for model fit estimation are given for further analysis. Some researchers, such as Barret (2007), argue that any further analysis with χ^2-signifcant models should be abandoned. However, it seems like most researchers and SEM specialists view such a statement as too restrictive. Remember, the χ^2 test of absolute fit, like all χ^2 statistics, is sample-sensitive. As samples sizes increases, the χ^2 tends to move towards significance. In the papers of the present thesis, particularly paper II, Millsap's (Millsap, 2007) recommendation is followed in the case of significant χ^2. First, the χ^2 value is reported and the consequence of the significant χ^2 clearly stated. Second, the possible reasons for getting a significant χ^2 are assessed. Third, other fit information (indices and matrices) together with theory are used in the assessment of further analysis. While the models in papers II and IV do have significant χ^2, this problem is rather thoroughly discussed, especially in the case of paper II.

Normally, researchers employ not only the χ^2 test but also several other fit indices. There exist a vast number of such statistics, and new indices are being developed. Two problems are frequently discussed in SEM literature—which indices to choose and how to set an appropriate cut-off for acceptable values. Brown suggests giving information about at least one fit index from each of the three kinds in his taxonomy, indices of absolute fit, parsimony correction indices and

comparative fit indices (Brown, 2006, p. 82). With a large number of fit indices available, it is important that the researcher does not calculate many such indices for then to choose the ones supporting the proposed model. Instead, the researcher should state which indices are to be calculated and with which cut-off values prior to the analyses. As pointed out by several researchers, the cut-off values for fit indices should not be considered as golden rules because many aspects of model estimation affect how the various indices perform (Hu and Bentler, 1999, Bentler, 2007, Yu, 2002, Millsap, 2007).

There are many possible reasons for problems with model fit. One is syntax errors. These are normally, but not always, relatively easy to spot. The consideration of when to re-specify the models is more complex. While theory might help when considering if the model specification might be suboptimal, the main approach in paper II is to inspect the model output. Two matrices are of special interest, namely the standardised residuals matrix and the modification indices matrix (Brown, 2006, p. 114). These matrices help the researcher in searching for areas of strain in the model as they point at specific variances or covariances that deviate from expected values. If the information about the residuals or the suggested parameter re-specification leads the researcher to change model specifications, this should be carried out based on theory, prior research or other logical reasons. When re-specifying the SEM models in papers II and IV, only substantial values for the standardised residuals matrix (values over 2.00) and the modification indices (values over 4.00) are considered. Only in those cases where there are good reasons for re-specifications are the models changed. In most cases, the reason to re-specify the model was either that indicators shared a methods effect, for instance that they were worded differently from the other (for instance, in positive wording while the other indicators were in negative wording) or that they were thought to share some variance besides the common factor they loaded onto. Last, some indicators are probably suboptimally formulated. This fact is also discussed in paper II.

Lack of strong theory and thoroughly validated inventories

In most inferential statistics, theory is a crucial factor, which is perhaps especially true in the case of SEM analyses. Despite the many important findings in bullying research, strong theories about bullying, its nature, causes and consequences are still lacking. For instance, Vivolo-Kantor et al. (2014) emphasise the desperate need for agreement about terminology and definitions. There are many unresolved issues, and with the appearance of cyber bullying, the need for theories has not diminished. Paper II would have benefited from a 'gold standard' harassment inventory or other robust measure to which our instrument could have been compared. With a 'gold standard' instrument at hand, the researcher can correlate items and factors from the instrument studied with an instrument or measure that has proved scientifically robust. Furthermore, there is no simple clinical approach to identify victims of bullying. Criterion validity is therefore difficult to assess, and few studies report on this form of validity (Vessey et al., 2014). However, convergent and discriminant validity were assessed within the limits of the available data. It would have been beneficial to have an alternative harassment inventory included, but few such inventories are available in Norwegian and it was not possible to increase the length of the approximately 100-item long questionnaire. Instead, the harassment inventory was compared with the four global items of bullying (bullied at home and at school, cyberbullied at home and at school) and with the KINDL instrument measuring QoL. However, as there is still uncertainty about the validity and reliability, and indeed the suitability, of bullying measures, the inferences implied by correlations between the constructs should be accepted with caution.

Discussion of overall findings

The following sections discuss some important findings across the four papers.

Perception of severity

The assessment of bullying prevalence is often accomplished using single global questions about whether a child has been involved in bullying as either a victim or a perpetrator. However, behavioural lists are also commonly used. Much research has pointed to discrepancies between relevant groups, for instance between students and teachers, students and researchers and younger and older students. Invalid assessments of group differences pose threats to validity if not dealt with properly. Based on paper I, it is evident that differences are not only a matter of which group one belongs to but also of personal perceptions of what constitutes bullying. This is true both for how students perceive the bullying criteria and for how they assess and convey aspects of severity of a range of negative conduct. When children perceive a term so differently in terms of severity, it is likely that some of the variation in items capturing bullying is related to that perception of severity. It is possible that children reporting being bullied generally have a more lenient view of what constitutes bullying compared to the not-bullied group. As prevalence figures for bullies normally are half of that for victims, it is possible that perpetrators perceive their actions as less severe than do their victims. Of course, this discrepancy between bullying and victimisation might also be a result of social desirability bias or the fact that some perpetrators bully several victims. In the approach to assessing bullying prevalence suggested by Olweus—the aforementioned single, global-item approach—the perception of severity is not captured.

Olweus suggests presenting students with a definition of bullying prior to having them answer the bullying question, but it is not clear if this approach has much effect. Although the importance of including the definition has been argued for (Solberg and Olweus, 2003, Evans et al., 2014), others warn against this practice because it might lead to underreporting (Kert et al., 2010). Bullying shares many similarities with psychological latent traits such as motivation, intelligence and depression. While bullying is not a trait in the usual sense, it is latent in the sense

that it is not directly observable. Like latent traits, bullying should be assessed with methods built upon robust constructs that are valid and reliable. As evident from paper IV, the bullying measures consisting of the four global items have significant error. Measurement error can be explained as the discrepancy between the true score (on a latent trait) and the observed score. This corresponds to usual descriptions of reliability. In other words, there is a considerable gap between the measure and the true construct. Some measurement error is (nearly) always present, but when the estimates become too large inferences from many analyses become more uncertain (Shadish et al., 2002, p. 49). As discussed in paper IV, the assessment of reliability in single-item measures is not straightforward. There are some possible approaches, such as using longitudinal data (Lucas and Brent Donnellan, 2012), using a test-retest approach (Domino and Domino, 2006, p. 43) or comparing the single item to a multi-item scale assessing the same trait or behaviour (Wanous and Hudy, 2001). However, traditional reliability in the sense of internal consistency, like the measures of Chronbach's alpha or McDonald's omega, is not applicable to single items. If many reports point to the very different perceptions of the term bullying, a fact that might imply reliability issues, then the use of a single-item assessment with its limited possibilities to estimate reliability is unfortunate.

Dichotomising or using the full information from scales?

Another disputed practise in bullying research is the dichotomising of bullying behaviour into victims and non-victims, bullies and non-bullies. For instance, Marsh et al. (2011) points at this particular issue and argue that this practise should be viewed as obsolete and inappropriate in most research settings. There are some exceptions to this position that are mainly based on research findings that indeed point to two distinct categories or taxons (MacCallum et al., 2002). Generally, the problem with dichotomising variables is that much information is lost. Following the cut-off suggested by Olweus, it is not possible to discriminate between students who have no experiences of bullying and those who have

experienced such behaviour once or twice in the last few months. Furthermore, it is not possible to distinguish between those who have experienced bullying behaviour rather infrequently and those who have experienced it two or three times in the last few months from those who have experienced very frequent bullying of several times a week. Now, to complicate this issue even more, Olweus points to the fact that repetition is not always an absolute criterion for something to be labelled as bullying (Olweus, 2013a). However, the cut-off still stands. Actually, there is one more problem with giving a definition and then asking children about bullying. The definition states that bullying is repeated over time, but then in the next section the participants are supposed to evaluate if bullying has occurred only once or twice using one of the categories on the Likert scale. It might be confusing to use the term bullying in a non-valid context. In paper IV, SEM analysis is used to assess bullying and harassment, specifically in their cyber forms. With SEM analysis measurement, error is estimated and removed from further analysis. Furthermore, the full use of variable information is normally possible in path analysis and other kinds of SEM models.

New approaches to the measurement of bullying

Today's definition of bullying is complex and not uniformly employed in research. Add to this the subjectivity of how students understand bullying and how they perceive the severity of negative actions. So far, little progress has been made to improve this situation. In the following sections, I briefly suggest two strategies for measuring bullying that might be useful to pursue.

As evident from the background section, the relationship between bullying and mental health problems are well known. Much less research has been conducted in terms of the relationship between bullying and QoL, but indications of reduced levels of QoL have been found (Bogart et al., 2014, Kvarme et al., 2010). This relationship is investigated in papers III and IV, and clear evidence for reduced overall QoL was found. This finding is true both for traditional and cyber forms of

bullying, with effect sizes larger than 0.90 for both. The SEM analysis in paper IV shows a relationship between bullying and academic achievement, mediated by QoL.

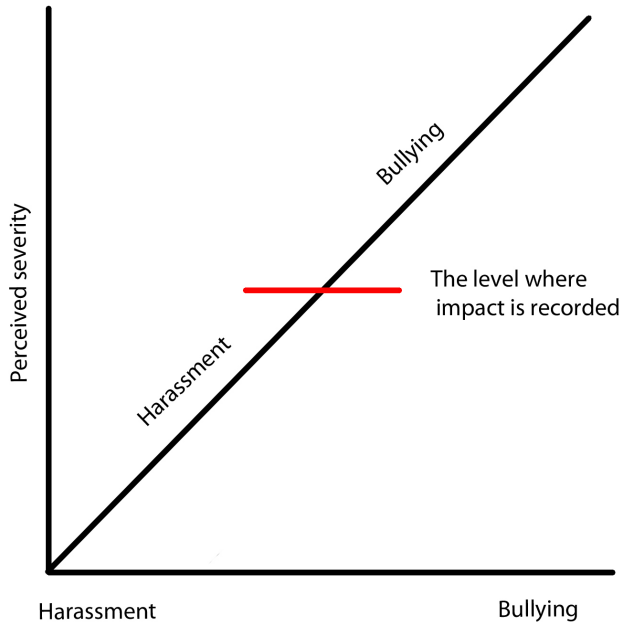

Figure 6: Separating harassment and bullying based on perceived severity

The first approach is to combine a measure of negative behaviour with an impact supplement. This approach mirrors what Robert Goodman (1997) did when he developed the SDQ. He used 25 symptom items measuring mental health problems divided into five domains. He included an impact supplement where the child was asked whether he or she had experienced problems with friends, family, school or leisure activities. The impact supplement also asks for how long the problems have occurred and if people close to the child is experiencing strain. Following this strategy, a behaviour list, like the harassment inventory used in the Well-being in Tromsø survey, could be coupled with an impact supplement like the one in the SDQ instrument. However, it would be possible to couple the harassment

inventory with the symptom scales from SDQ as an alternative and to compare which of these strategies would provide the best result. With such an approach, bullying would be seen as 'negative actions that cause problems for the victim' (figure 6). This approach targets the problem of perceived severity. However, it does not solve the problems of capturing the bullying criteria of intent and imbalance of power. Research should be undertaken to assess if these criteria are equally important in the suggested approach, as Olweus states regarding his approach. To separate bullying from other kinds of aggression other strategies might be necessary. This leads to the second approach.

The second approach is to develop the Olweus method of measuring bullying. Today's approach captures repetition and to some extent duration but not intent or imbalance of power. However, Olweus argues for the use of a definition when assessing bullying. It is not clear how the use of a definition influences children's responses, but it has been argued that this strategy might lead to underreporting. In any case, the student does not actively respond to the criteria of bullying, except for repetition, which is assessed. However, intentions and imbalance of power are in fact assessed with the California Bullying Victimization Scale (CBVS), where one item captures intentionality and three items capture different forms of imbalance of power (Felix et al., 2011). Approach two is to build upon the CBVS initiative by further developing constructs for intentionality and imbalance of power. A construct of severity should also be developed. The development of these items and scales should rest on theory, well-defined constructs and thorough piloting. The constructs of severity, intentions and imbalance of power could be coupled with the global-item approach, the single-item approach or a behavioural list or inventory.

The two approaches discussed are not mutually exclusive; rather, they both could be employed to better capture the criteria of bullying. Obviously, much more research is needed to determine if these or similar approaches do improve the measurement of bullying. It is important to mention that the development of new approaches to measure bullying does not in itself solve the problem of lack of uniformity among researchers. It is likely that the research community will continue to use a range of approaches and to employ a range of definitions of bullying. In some respect, this is desirable because diversity might yield stronger findings. No operalisation covers its construct perfectly; there is always an element of underrepresentation and irrelevant aspects being measured (Kleven, 2008). However, the lack of uniformity is a hindrance for comparative research. For teachers and other practitioners, policymakers and anyone trying to battle the problem, the uncertainty of terminology and findings is unfortunate.

Critical issues in the measurement of bullying

In 1994, Arora suggested moving from the single global-item approach to a method using behavioural lists (Arora, 1994a, Arora, 1996), an approach that has been supported by others (Eriksen et al., 2014, p. 158, Vaillancourt et al., 2010, Rønning et al., 2004a). Such approaches have been used for a long time and many reports are available, but the single-item approach is probably still the most commonly used in terms of prevalence estimation. In papers III and IV, we compare the use of global items to a list of 23 different behaviours. Prevalence estimates for harassment are three times that of bullying, where harassment is measured as if the student has experienced one or more of the behaviours on the list more than one or two times in the last few months (the same scale and cut-off as for bullying). This threefold increase could be due to several reasons. First, it is possible that students underreport bullying behaviour, for instance, for social reasons. Such social desirability bias is well known (Furr and Bacharach, 2013, p. 241) and has been suggested in the case of bullying measurement (Kert et al., 2010). Another possible explanation could be related to perceived severity. If

students perceive bullying as more severe than concrete actions, no matter if those particular actions would qualify as bullying, then it is likely that estimates will be affected. It would then be the perception of severity connected to the terms themselves that influenced participants' ratings. Indeed, in paper I, all respondents—both teachers and students—agreed that bullying was the most severe term of the 10 terms they were asked to rank. Third, it is possible that students include negative behaviours from the list that would not meet the bullying criteria of imbalance of power and intention (while the case of repetition is dealt with in a similar way as for bullying). Bullying is perhaps regarded as a particularly serious form of peer aggression, and it is likely that some of the differences are a result of less severe kinds of actions reported in the harassment approach. Fourth, as discussed, there is a significant amount of error in bullying measures, both in the global-item approach (where reliability is less certain) and the harassment inventory. It is not possible to know all sources of measurement error (Furr and Bacharach, 2013, p. 103), and it is difficult to compare the relative impact of identified sources of possible unreliability.

As presented in the introduction, researchers have identified many problems with assessing bullying that relate to definitions and terminology, the validity and reliability of the measures used and study designs in general. Based on both prior research and the findings of the present studies, it seems reasonable to state that the measurement of bullying must be further developed. In this respect, at least four important issues have been investigated in the present research. First, we found even more support for the claim that because of it problematically subjective nature, it is hard to capture bullying using many of today's most common methods. Second, we have given some evidence for the validity of the harassment inventory used in the Well-being in Tromsø survey. The contribution here also extends to the use of rather new methods for validation. Third, we have over several papers assessed models of harassment and bullying in terms of

prevalence and the relationship with QoL and academic achievement. Thus, information about which method is to be preferred has been established.

It is interesting to note that in paper III we find little difference between the impact of the constructs of traditional and cyber bullying on perceived QoL. Both types of bullying have a considerable impact on perceived QoL, with effect sizes of d=.96 (traditional) and .91 (cyber). When comparing cyber bullying with cyber harassment, we find the latter actually produce a larger effect size, but as the d-value for cyber bullying is not significant, no final conclusion is possible.

SEM analysis should be employed to be able to utilise the full scales and to correct for measurement error. It was expected that bullying and harassment would affect both QoL and mental health in similar ways, but while both outcomes are negative, the relatively stronger impact of bullying compared to harassment is only seen in the case of mental health. If bullying is perceived as a more severe kind of negative behaviour compared to harassment, there would likely be a greater (negative) impact on both mental health and QoL compared to harassment. Of course, mental health and QoL are different constructs, but they are supposed to tap similar aspects of children's and adolescents' experienced problems in life. It could be that QoL is more affected by less severe kinds of behaviour than is mental health or conversely that QoL is less sensitive to the severity. Further analysis is needed to assess this question. In general, it is important to replicate these analyses, as our sample size is moderate and the models rather complex.

Capturing the construct of bullying

An important question is whether one should view bullying as either a latent or an observable construct. If considering bullying as an observable construct, the range of different behaviours that constitute bullying are indicators of bullying. Bullying in this context would be an umbrella term for those kinds of behaviours. However, for something to be labelled bullying, there is also the requirements of

repetition/duration, power imbalance and often also intention. Repetition or duration is probably compatible with the observable construct, as these aspects are concrete and observable. However, in the case of power imbalance and intention, it becomes more complicated because neither of these criteria is directly observable. Power imbalance does not necessarily mean difference in physical power but could equally well mean differences in social position, cognitive maturation and academic performance, for example. Such factors are not always immediately observable, and it is often the perceived imbalance of power that is actually in play. In the case of intention, it is difficult to observe if something was done intentionally or not. Even if intention is stated, it is sometimes difficult to identify what intentions the perpetrator had. Again, when negative conduct is observed, it is the perception of the viewer that determines if it was done intentionally or not. Basically, it is what the victim perceives that is important, and such perceptions are not observable. It is likely that bullying is a latent trait where directly observable actions are just some of the indicators. Others indicators are repetition, duration, power imbalance and intentions. Probably also severity, as was explored in paper I. We use instruments in an attempt to capture both observable and non-observable aspects of the world surrounding us. The non-observable aspects are often called 'latent', which means 'hidden' in Latin. Such latent aspects are common in psychological measurement. Latent traits are aspects of human life that are not directly observable but are believed to exist based on theory that is often based on observable findings. Considering the case of bullying, it is theorised that there are different kinds of bullying. For instance, verbal and physical bullying are different from each other and therefore involve the initiation of different kinds of actions.

Conclusions

Two aims and three RQs were formulated for this thesis. The first aim and the first RQ address how bullying is perceived. Of special interest is how people perceive

the severity of different kinds of negative conduct. The second aim is to compare two methods of estimating prevalence of bullying. RQ2 addresses this directly while RQ3 is concerned with how the two instruments are related to QoL.

RQ 1

Our findings show that students seem to perceive the severity of various forms of negative conduct differently from their teachers. From the interviews, we learned that teachers rank physical forms of negative conduct as the most severe, while students across grades rank social and cyber forms of negative conduct as most severe. This is an important finding. The research has found that teachers are more likely to intervene in situations they deem serious. Therefore, it is a risk that teachers intervene in the 'wrong' situations and not in those that students really need help with. Teachers should discuss how their students perceive the severity of different actions in their classes to gain a more realistic view of how bullying behaviour affects students.

Our findings show that even though consensus was reached between the participants in each group when the list of negative behaviour was ranked, there were still substantial differences at the individual level. This finding, logical as it is, is challenging for several reasons. First, the research has shown that students not necessarily include all three bullying criteria of repetition/duration, intentional negative behaviour and imbalance of power. Therefore, what we measure is perhaps something different from the theoretical understanding of bullying. There is some evidence that this discrepancy between theory and practise is true, even if students are provided with a definition of bullying. However, our research extends this problem to the domain of severity.

Students were able to give very clear descriptions of how severe an action needed to be for it to be regarded as bullying. Where one girl claimed that any kicking was to be regarded as bullying, a boy in the same class argued that only kicking with

levels of severity where the perpetrator chose to stop was to be considered bullying (probably because he or she was worried about being too violent). This finding has important implications for research, as it seems important to be able to grasp the subjective element of bullying. However, the strong subjective element of perceived severity poses a problem to teachers. Teachers need to solve conflicts between students regularly, and they need to choose appropriate strategies in that context. For instance, if they regard an incident as a conflict between equally strong parties, then strategies for conflict solving are chosen. These approaches often include an investigation of what has happened, a distribution of guilt, suggestions for moving on and attempts to help the parties involved to become friends. Thus, this approach implies that the parties are of equal strength. However, when the teacher concludes that the incident in question falls in the category of bullying, other strategies should be employed. Olweus suggests several actions in this regard, all of which acknowledge that the involved parties are not equal. Bullying is not a conflict but rather a form of abuse involving victim(s) and perpetrator(s). However, it is difficult for the teachers to make this distinction and to make distinctions between less severe cases where students might well solve the conflict themselves and cases where teacher involvement is needed.

Furthermore, the students gave a nuanced picture of the link between the severity and frequency of negative actions. If they regarded incidents as very severe, they argued that it needed to only happen once. Less severe incidents would need to be repeated, but the students were not very precise about for how long or about how many repetitions would constitute bullying. This finding is important because it indicates that the use of dichotomised variables based on frequency probably fails to cover severity very well. Chen et al. (2013) reached a similar conclusion in a somewhat different context and using quantitative data.

RQ 2

The second research question targets the two often used approaches to measure bullying, the single item and the multiple items approaches. Theory presented in the background section points at the problems single item measures face in terms of the assessment of reliability. Normally multiple items measures are superior in this matter, but as pointed out, some single item measures seem to have acceptable reliability. However, bullying is a complex construct where the criterion of negative behaviour is coupled with repetition/duration and imbalance of power. Often even intention is included. In such a case, it seems more appropriate to rely on a multiple items approach. Paper one points at a possible new dimension in the construct, namely the severity of the negative behaviour. From paper three we see that cyber harassment seems to have a larger negative effect on perceived QoL than cyber bullying (d=63 vs d=0.39). However, while not reported in paper three and based on a larger sample, the effects sizes of overall harassment and bullying (both traditional and cyber) differ from this picture. Bullying produces a slightly larger effect than harassment (d=.84 versus d=0.71). However, more research on this topic is needed to conclude. From paper four we see that there is a considerable amount of measurement error in both the bullying and the harassment indicators. With SEM one can estimate and remove error in latent variable analyses. However, this is only possible with multiple items scales without using modified and probably inferior models. This indicates that the multiple items approach probably is the best choice.

Given all these aspects, the multiple items approach should be considered the superior approach. However, it is likely that the inventory used in Well-being in Tromsø is suboptimal. Revisions should be made, particularly to the cyber items, which seem to capture too little variance, especially for the parents and teachers groups. However, paper two proves that the instrument do yield evidence for acceptable reliability, convergent and discriminant validity and even invariance over gender, SES and academic skills. In this context it seems fruitful to improve the existing inventory rather than building a new from scratch.

RQ 3

The third research question is directed towards how bullying and harassment impact on QoL. As mentioned above, there is a stronger, negative effect size for bullying compared to harassment on QoL, d=0.84 (bullying) versus d=0.71 (harassment). This is interesting, but this finding should be validated over several data waves and preferably several samples before final conclusions are drawn. It is interesting to see that traditional and cyber forms of bullying seem to impact in different ways on QoL. While the effect size on over all QoL is very similar (d=0.91 for cyber harassment versus d=0.96 for cyber bullying), the area of impact differ. While cyber bullying has its biggest impacts on emotional QoL (d=0.79) and school QoL (d=0.74), traditional bullying seems to impact the most on physical and emotional QoL (both d=0.72). All effect sizes being significant at the 0.05-level.

It is of interest to assess the relationship between both harassment and bullying on mental health, in Well-being in Tromsø measured by the SDQ questionnaire. The idea of combining bullying instruments and mental health is not new. In a report about the impact of bullying on mental health, Sourander et al. (2007b) argued that children involved in bullying should be screened for psychiatric problems. However, the authors do not suggest that such screening should be included as part of the bullying instrument. I suggest that such a combination is worth pursuing.

It is possible to combine an impact supplement with various instruments of bullying or harassment. It has been argued that the term 'bullying' might lead to underreporting. Similar arguments have been put forward regarding the use of the definition in bullying measures (Kert et al., 2010). There is a possibility for missing false negatives, as students involved in bullying either as victim or perpetrator do not always report honestly. For this reason, it could be better to choose the

harassment approach and use a behavioural list that is probably less prone to social desirability bias.

Further research

Generally, it would be desirable to reproduce the present study using a randomly selected sample of schools, perhaps with alternative methods to validate the findings. For instance, it is possible to conduct more thorough analyses to assess the effects of bullying and harassment on QoL and academic achievement. For example, one could make use of multiple indicator factors for both academic achievement and SES. It would also be interesting to compare the effects of bullying and harassment on mental health in addition to QoL. Other background variables could also have been taken into account, such as indicators of parent–child relationships or special education needs. This way, one could both account for such variables and also learn how these influence the QoL and mental health of children being subjected to bullying or harassment.

It is necessary to further investigate which construct to use in estimating prevalence, bullying or harassment. More comparative research should be conducted in an attempt to determine the best construct or under which circumstances each construct is preferable. Therefore, research should be carried out to further compare the global, single-item approach and the use of behavioural lists or inventories. One important aspect in this respect is to identify viable criteria for comparisons of the two methods. Qualitative research might provide the in-depth knowledge needed to understand the difference between bullying and harassment even better. I suggest that the difference has mostly to do with the severity of actions (and not with the bullying criteria), but this needs to be researched further.

There are some suggestions for future research apart from the methodological aspects. First, the findings of the papers in the present study clearly indicate the impact of bullying or harassment on QoL and mental health. Why bullying seems to impact mental health more than harassment and why no such difference can be seen in the case of QoL should be investigated in greater depth. It could simply be a random effect related to our data, or it could be that bullying and harassment affect mental health and QoL in different ways. Longitudinal studies should be carried out to assess the long-term effects and causal relationships between the four constructs of bullying, harassment, mental health and QoL. Furthermore, the present research only touches on the issues of academic achievement and socioeconomic status. These are important aspects that should be researched more thoroughly.

In addition to investigating the impact of bullying and harassment on QoL done in the present thesis, it is important to assess the impacts on mental health problems. Further research should compare instruments to learn more about strengths and limitations related to relevant approaches in this case. As mental health instruments are more directly related to clinical definitions and diagnoses, a hypothesis is that these instruments are better fit to discriminate between less and more severe forms of negative conduct. However, it this needs to be assessed. On the other hand, QoL might be informative about how bullying impacts on the victim's life situation. Maybe a combination would be optimal, if such an approach is comprehendible.

It would be interesting to expand the interview study to encompass more schools, other age groups and even other significant adults in children's lives. Volume in qualitative research is often an issue. Often, the researcher must balance the expense in time, funding, personnel resources and stress on the candidates involved on one hand and the variation and richness of the data on the other. More variation might be captured if more time was available.

This thesis focuses on the victims of bullying or severe harassment. However, it is equally important to study the perpetrators and even the bystanders. It is not readily obvious how to assess the prevalence of these roles as the same subjective perceptions of bullying probably apply to these roles as well. Advances in prevalence estimation methods would probably help the assessment of all groups involved, included bystanders.

Work is needed to improve the instruments in the present study and to continue to evaluate the validation of them. The KINDL instrument should be validated with a national representative sample. To date, the instrument has been insufficiently validated. An important aspect in this regard is related to norming. A common question in the Well-being in Tromsø survey is 'What is a good KINDL score?' Both researchers and teachers have requested norms in this context. Furthermore, the harassment inventory should be further investigated, and of special interest are the eight items measuring cyber harassment. These eight items capture too little, and especially for teachers and parents these items move towards constants. For many items, parents nor teachers report any harassment incidents, resulting in that the lowest response category capture all the scores. Better items are therefore needed. Research is needed both to better learn what the construct of cyber bullying is and also how this phenomenon is best captured.

There is still so much to be learned about how bullying and harassment impacts the lives of children and adolescents. SEM models provide a flexible framework where even rather complex models and multiple effects can be assessed. Future research should make more use of SEM. However, quantitative methods seem to dominate bullying research and to me it seems obvious that more research using qualitative approaches is needed.

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Appendices

UiT
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Forespørsel om deltakelse i forskningsprosjektet

"Trivsel i Tromsø"

Til foreldre/foresatte

Svarfrist: raskest mulig

Bakgrunn og hensikt

Dere mottar denne henvendelsen som foresatte til en elev ved en av universitets samarbeidsskoler i Tromsø. En slik form for direkte samarbeid mellom skole og universitet er nytt. Hensiktene er å knytte forskeren, studenten og skolen sammen, og slik fremme forsknings- og utviklingsarbeidet i lærerutdanningen, og bidra til at forskningsbasert kunnskap utvikles og tas i bruk. Som alle vet er skolen en viktig livsarena for barn og unge. Barnas opplevelser i skolehverdagen har stor betydning for deres sosiale utvikling. Mer spesifikk kunnskap om hvordan ulike trivselsfaktorer faktisk spiller inn vil, ved siden av å være av interesse i seg selv, være av grunnleggende betydning for eventuelle forandringer. Det foreliggende forskningsprosjektet fokuserer generelt på elevenes sosiale relasjoner i barne- og ungdomsskolen. Mer spesifikt vil studiet undersøke nærmere mønstre i sosiale atferd mellom elevene, inklusive mobbing og digital mobbing. De digitale relasjoner er nye fenomener, og digital mobbing kommer antagelig i kjølvannet av den tradisjonelle mobbingen. Vi vil undersøke forekomst av de ulike typer mobbing og hvordan dette virker inn på elevenes trivsel. Institutt for lærerutdanning og pedagogikk ved Universitetet i Tromsø er ansvarlig for studien.

Hva innebærer studien?

Skolen har sagt ja til å delta i prosjektet. Hvis dere som foreldre/foresatte også bestemmer dere for å medvirke, vil foreldre og skoleelev bli bedt om å fylle ut hvert sitt spørreskjema («Trivsel i Tromsø») om elevens trivsel, atferd, mentale helse og sterke og svake sider.
Det er viktig at både elev og foreldre fyller ut skjemaene selvstendig. Elevene vil gjøre dette på skolen via nettet, mens foreldre besvarer papirversjon av spørreskjemaet når eleven går i klasse 4, 7 og 9.

Vi ber dere samtidig gi tillatelse til at også elevens kontaktlærer kan fylle ut en lærerversjon av spørreskjemaet. Dette er viktig fordi barn og unge oppfattes forskjellig ut i fra hvem som ser dem, og i hvilken situasjon de befinner seg.

Da trivselsproblemer erfaringsmessig kan komme og gå, vil vi be om at de samme skjemaene fylles ut på nytt ca. en gang i året så lenge studien pågår. Alle opplysninger som gis via skjema og pc vil bli behandlet konfidensielt.

Hva skjer med informasjonen om dere og barnet?

Informasjonen som registreres om dere og barnet skal kun brukes som beskrevet ovenfor under avsnittet "Bakgrunn og hensikt". Alle opplysningene vil bli behandlet konfidensielt. **Ingen lærere eller andre i klassen vil kunne finne ut hva du har svart**. Svarene vil bare bli lest i forskningsøyemed, av forskere. Skolen som deltar i prosjektet vil regelmessig motta samlerapporter som kan brukes for utvikling av læringsmiljøet.

UiT, ILP
Mellomveien 110
9037 Tromsø

Tlf: 77 66 04 76
Internett:
www.uit.no/tit

Forskerne som skal arbeide med studien vil få utlevert opplysningene i **avidentifisert** form. En kode knytter eleven til opplysningene gjennom en navneliste. Det er kun autorisert personell knyttet til prosjektet som har adgang til navnelisten og kan finne tilbake til dere i databasen. Navneliste med kode som er registrert i forskningsstudien vil bli slettet ved prosjektslutt. Det vil ikke være mulig å identifisere deg/dere i studieresultatene når disse publiseres.

Frivillig deltakelse

Det er frivillig å delta i studien. Du/dere kan når som helst, og uten å oppgi noen grunn, trekke tilbake samtykket. Dersom du/dere ønsker å delta i studien, undertegnes samtykkeerklæringen på siste side.

Dersom du/dere senere ønsker å trekke deg/dere eller har spørsmål til studien, kan prosjektleder, førsteamanuensis Steinar Thorvaldsen ved UIT kontaktes (**telefon 77 66 04 76**), eller professor John Rønning ved UIT (**telefon 77 64 58 55**).

Personvern

Spørreskjemaene via pc og senere intervju lagres i en database.
Bare visse forskere ved institusjonene som driver studien har tilgang til data i avidentifisert form.
Institutt for lærerutdanning og pedagogikk, ved Steinar Thorvaldsen er databehandlingsansvarlig.

Forsikring

Deltakerne trenger ingen spesiell forsikring for å delta i prosjektet.

Rett til innsyn og sletting av opplysninger

Hvis du/dere deltar i studien, har du/dere rett til å få innsyn i hvilke data som er registrert om deg/dere. Du/dere har rett til å få korrigert eventuelle feil i de opplysningene vi har registrert. Dersom du/dere senere trekker deg/dere fra studien, kan du/dere kreve å få slettet innsamlede opplysninger, med mindre opplysningene allerede er inngått i analyser eller brukt i vitenskapelige publikasjoner.

Med vennlig hilsen

Steinar Thorvaldsen, førsteam. dr. scient
Prosjektleder

John A. Rønning, prof. dr. philos.
Psykologspesialist og Faglig leder

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Internett:
www.uit.no/tit

---Svarark---

Elevens navn og klasse (husk å fylle ut)

---------- ----
Navn Klasse

Samtykke til deltakelse i studien «Trivsel i Tromsø»

Jeg/vi er villig til å delta i studien

E-post adresse til foreldre: _____

_____ _____
(Signert av én av foreldrene/foresatte, dato)
(Hvis eleven er 16 år eller eldre er det eleven selv som signerer)

*Dette svararket leveres til elevens kontaktlærer. Lukket konvolutt kan brukes (la klasse og navn være synlig i konvoluttens vindu, eller skriv navnet utenpå). De som **ikke** vil delta kan krysse av under og levere svarark **uten signatur**. Kontaktlærer leverer svararkene samlet for klassen til rektor.*

☐ Nei, vi ønsker ikke å delta i studien, dato: _____

Appendix 2

Intervjuguide med lærere, januar 2014

Del 1. Oppvarming
- Presentasjon
- Klargjøring
    - Tidsramme
    - Video og transkripsjon
    - Frivillighet, mulighet til å trekke seg
    - Tema
    - Ute etter refleksjoner, oppfatninger, erfaringer. Ingen gale svar

Del 2. Definisjoner
- Ti definisjonsbegreper, sortere og rangere
- Ti mobbehandlinger, rangere
- Hva tror dere elevene deres vet om mobbing?
- Hvordan tror dere elevenes deres definerer mobbing?
- Hvordan tror dere foreldre definerer mobbing
- Hvor entydig tror dere lærere, foreldre og elever definerer mobbing?
- Annet?

Del 3. Erfaringer
- Hvilke erfaringer har dere med mobbesituasjoner fra yrket?
- Hvilke erfaringer har dere med mobbesituasjoner selv?
- Hvilke erfaringer har dere med samarbeid med foreldre i mobbesaker?
- Hvilke erfaringer har dere med forebyggende arbeid?
- Hvordan vurderer dere ledernes prioritering og tilrettelegging?

Del 4. Foreldresamarbeid
- Beskriv hvordan skole-hjemsamarbeidet fungerer i dag
- Hvilke faktorer fremmer og hvilke hemmer samarbeidet?
- Hvordan håndterer dere vanskelige foreldresamtaler om mobbing?
- Hva forventer foresatte av dere i mobbesaker?

Del 5. Tiltak
- Kan dere skissere gode tiltak for å forebygge mobbing?
- Kan dere skissere gode tiltak for å løse mobbesaker?

Del 6. Avslutning
- Er det ting dere ønsker å kommentere om det dere har sagt underveis?
- Er det ting dere ikke har fått sagt som dere ønsker å si?
- Hvordan har dere opplevd dette intervjuet?
- Takk for bidraget, dette er viktig informasjon.

Appendix 3

Intervjuguide med elever, januar 2014

Del 1. Oppvarming
- Presentasjon
- Klargjøring
    - Tidsramme
    - Video og transkripsjon
    - Frivillighet, mulighet til å trekke seg
    - Tema
    - Ute etter refleksjoner, oppfatninger, erfaringer. Ingen gale svar

Del 2: Om erfaringer med spørreskjemaet
- Hvordan var det å fylle ut spørreskjemaet?
- Var det noe som var vanskelig å forstå?
- Ble dere slitne?

Del 3: Om begreper
- Be elevene rangere ulike begreper, altså bli enige om verst til best
- Diskutere forskjellene i begreper
- Diskutere kriterier for de ulike begrepene.
    - Hvor hardt må man sparke for at det skal være en negativ handling?
    - Hvor stygge ord må til for at det er erting?
    - Hva skal til for at man føler at man er utestengt?
    - Hvilke kommentarer er akseptable på facebook?
    - Hvor mye har det å si hvem handlingene kommer fra?
        - Gode venner, klassekompiser, søsken, statusperson etc.
    - Hvor mye må man tåle (herding)?
        - Kylling? Base, døpe?
        - Må man tåle ulike fysisk, verbalt, sosialt og digitalt?
- Gjentakelse
    - Mer alvorlig?
    - Hva er ”ofte”?
    - Hvor lang tid tar det før noe er glemt?
- Hvordan reagerer dere når dere blir utsatt for ulike handlinger?
- Hvordan reguleres hva som er lov og hvor grensene går?

Del 4: Om makt
- Beskriv hva som kjennetegner personer som mobber/offer på disse måtene:
    - Fysisk mobbing
    - Fryser ut
    - Mobbing med ord
    - Digital mobbing

Del 5: Avslutning
Her åpner vi for avsluttende kommentarer og spørsmål. Takke for innsatsen.

Appendix 4

"Trivsel i Tromsø"
Særskilt samtykke for intervjuer

Til foreldre/foresatte

Svarfrist:

raskest mulig

Bakgrunn og hensikt

Som kjent deltar Storelva skole i forskningsprojektet "Trivsel i Tromsø"[1]. Som en del av dette prosjektet skal det gjennomføres noen gruppeintervjuer med et utvalg av de deltakende elevene. Deres elev er trukket ut til et slikt intervju, og i den forbindelse trenger vi samtykke for deltakelse

Hva innebærer studien?

Denne delstudien innhenter data fra intervjuer med elevene. Det gjennomføres intervjuer i grupper på 4-6 elever, intervjuene varer en skoletime. Under intervjuene vil begreper og temaer rundt trivsel og mobbing komme opp. Formålet er å forstå mer om hvilke ord og begreper elevene benytter, og om hvordan disse oppfattes blant elevene. Intervjuene vil ha form av samtale og diskusjon.

Hva skjer med informasjonen om barnet?

Intervjuet vil bli tatt opp på video, dette for å lette arbeidet med å skrive ut samtalene i etterkant. Når intervjuene er transkriberte, vil videofilene slettes. I det videre arbeidet med dataene vil elevene være avidentifiserte, men forskergruppen vil sitte på en koblingsnøkkel som muliggjør kobling av data. Alle opplysninger behandles konfidensielt, og ingen elever vil kunne identifiseres i etterkant. Generelt følger dette delstudiet retningslinjene for hovedstudien.

Frivillig deltakelse

Det er frivillig å delta i studien. Du/dere kan når som helst, og uten å oppgi noen

[1] For mer informasjon om prosjektet: http://uit.no/prosjekter/prosjekt?p_document_id=350293

grunn, trekke tilbake samtykket. Dersom du/dere ønsker å delta i studien, undertegnes samtykkeerklæringen på siste side.

Dersom du/dere senere ønsker å trekke deg/dere eller har spørsmål til studien, kan prosjektleder, førsteamanuensis Steinar Thorvaldsen ved UIT kontaktes (**telefon 77 66 04 76**), eller professor John Rønning ved UIT (**telefon 77 64 58 55**).

Personvern

Bare visse forskere ved institusjonene som driver studien har tilgang til data i avidentifisert form. Institutt for lærerutdanning og pedagogikk, ved Steinar Thorvaldsen er databehandlingsansvarlig.

Rett til innsyn og sletting av opplysninger

Hvis du/dere deltar i studien, har du/dere rett til å få innsyn i hvilke data som er registrert om deg/dere. Du/dere har rett til å få korrigert eventuelle feil i de opplysningene vi har registrert. Dersom du/dere senere trekker deg/dere fra studien, kan du/dere kreve å få slettet innsamlede opplysninger, med mindre opplysningene allerede er inngått i analyser eller brukt i vitenskapelige publikasjoner.

Med vennlig hilsen

Steinar Thorvaldsen, førsteam. dr. scient philos.
Prosjektleder
Faglig leder

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Internett:
www.uit.no

Elevens navn og klasse (husk å fylle ut)

---------- ----
Navn Klasse

Samtykke til deltakelse i intervjuer i studien «Trivsel i Tromsø»

Jeg/vi er gir samtykke til at vår elev kan delta i intervjuer

E-post adresse til foreldre: _____

_____ _ _____
(Signert av én av foreldrene/foresatte, dato)
(Hvis eleven er 16 år eller eldre er det eleven selv som signerer)

*Dette svararket leveres elevens kontaktlærer. Lukket konvolutt kan brukes (la klasse og navn være synlig i konvoluttens vindu, eller skriv navnet utenpå). De som **ikke** vil delta kan krysse av under og levere svarark **uten signatur**. Kontaktlærer leverer svararkene samlet for klassen til rektor.*

☐ Nei, vi ønsker ikke å delta i studien, dato: ____

Appendix 5

Ti begreper (klippes opp til lappeaktivitet):

Mobbe
Erte
Plage
Slå
Sparke
Baksnakke
Utestenge
Kommentere stygt
Sende stygge bilder
True

Appendix 6:

Student, teacher and parent questionnaire

Elev 8-11 14/15

Trivsel i Tromsø, Elevskjema 8-11 år

Hei,

Vi vil gjerne vite hvordan du har det for tiden. Derfor har vi tenkt ut noen spørsmål som vi ber deg svare på.

- Alle dine svar blir behandlet på en trygg måte, og dine lærere og de andre i klassen din vil ikke kunne finne ut hva du har svart.
- Vær vennlig å les gjennom hvert spørsmål.
- Tenk over hvordan det var i siste uke (eller de siste 2-3 månedene hvis det spørres om det).
- Kryss i hver del av på det svaret som passer best for deg.
- Husk å trykke på "Send" til slutt!

Det finnes ingen riktige eller gale svar.
Det som er viktig for oss er din mening.

Fortell oss noe om deg selv. Kryss av eller fyll ut !

Jeg er

- ○ en jente
- ○ en gutt

Mitt fornavn er:

Mitt etternavn er:

Jeg går i

○ 4. trinn ○ 5. trinn ○ 6. trinn ○ 7. trinn

Lærer 14/15

Trivsel i Tromsø, *lærerskjema.*

Kjære kontaktlærer,

Takk for at du og din skole bidrar til undersøkelsen om dine elevers trivsel og helsemessige livskvalitet. Det fylles ut ett skjema for hver elev. Alle skjema avidentifiseres før de blir analysert.

Vær vennlig å ta hensyn til følgende når du svarer:

- Les nøye gjennom hvert spørsmål,
- tenk over hvordan eleven hadde det de siste 2-3 månedene, og
- kryss av det svaret som passer best for hver elev, og
- husk å trykke **"send"** når du er ferdig!

Merk av eller fyll ut !

Eleven er:

- ○ en jente
- ○ en gutt

Elevens fornavn:

Elevens etternavn:

Eleven går i

- ○ 4. trinn ○ 5. trinn ○ 6. trinn ○ 7. trinn ○ 8. trinn
- ○ 9. trinn ○ 10. trinn

Eleven går på

Velg alternativ

OPPLEVELSER AV KLASSISK MOBBING

En elev kan bli utsatt for negative eller sårende handlinger ofte eller av og til, og fra en eller flere elever. Denne plagingen kan være verbal (f. eks. navnekalling, trusler), fysisk (f.eks. slag) eller psykisk (f.eks. rykter, å fryse ut/ekskludere noen). Svar på grunnlag av det du selv kjenner til for din elev de siste 2-3 månedene.

6) * Generell mobbing

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Hvor ofte har eleven blitt mobbet i skoletiden?	○	○	○	○	○
Hvor ofte har eleven blitt mobbet utenom skoletiden?	○	○	○	○	○
Hvor ofte har eleven vært med på å mobbe andre i skoletiden?	○	○	○	○	○
Hvor ofte har eleven vært med på å mobbe andre utenom skoletiden?	○	○	○	○	○
Forteller eleven at han/hun har sett andre elever bli mobbet?	○	○	○	○	○

Spesielle former for trakassering

Hvor ofte har noen mobbet eleven på følgende måter:

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Kalt eleven stygge ting	○	○	○	○	○
Sagt noe stygt om elevens familie	○	○	○	○	○
Prøvd å sparke eleven	○	○	○	○	○
Vært ekkel med eleven fordi vedkommende er annerledes	○	○	○	○	○
Truet eleven	○	○	○	○	○
Ertet eleven	○	○	○	○	○
Fått de andre elevene til å være slem mot eleven	○	○	○	○	○
Prøvd å få eleven til å være slem mot andre elever	○	○	○	○	○
Prøvd å lure eleven til å gjøre noe galt	○	○	○	○	○
Prøvd å såre eleven	○	○	○	○	○
Fått eleven til å gjøre noe vedkommende ikke hadde lyst til	○	○	○	○	○
Prøvd å sparke snublefot på eleven	○	○	○	○	○
Truet med å sladre på eleven	○	○	○	○	○
Fortalt en løgn om eleven	○	○	○	○	○
Prøvd å slå eleven	○	○	○	○	○

8) * Hvem har mobbet eleven?

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Jenter	○	○	○	○	○
Gutter	○	○	○	○	○
En gruppe (f.eks. en gruppe venner, en skoleklasse, osv.)	○	○	○	○	○

DIGITAL MOBBING

Digital mobbing skjer via mobiltelefoner eller internett når personer blir ertet, eller hvis noen legger ut noe på nettet som person ikke liker. Svar på grunnlag av det du selv kjenner til for din elev de siste 2-3 månedene.

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Hvor ofte har eleven blitt digitalt mobbet i skoletiden?	○	○	○	○	○
Hvor ofte har eleven blitt digitalt mobbet utenom skoletiden?	○	○	○	○	○
Hvor ofte har eleven vært med på å mobbe andre digitalt i skoletiden?	○	○	○	○	○
Hvor ofte har eleven vært med på å mobbe andre digitalt utenom skoletiden?	○	○	○	○	○
Forteller eleven at han/hun har sett andre elever bli digitalt mobbet?	○	○	○	○	○

10) * Hvor ofte har noen mobbet eleven digitalt på følgende måter?

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Ekle tekstmeldinger (SMS) eller ubehagelige bilder/videoer på mobilen til eleven	○	○	○	○	○
Ekle oppringinger på mobilen til eleven	○	○	○	○	○
Skremmende eller stygg epost til eleven	○	○	○	○	○
Ertet eller fornærmet eleven på Internett (Facebook, Twitter, web osv.)	○	○	○	○	○
Ertet eller fornærmet eleven ved hjelp av chat-meldinger i f.eks. Skype eller spill	○	○	○	○	○
Ertet eller fornærmet eleven ved innlegg/kommentarer på blogg	○	○	○	○	○
Ubehagelige bilder/videoer om eleven på Internett (Facebook, YouTube, web osv.)	○	○	○	○	○
Utestengt eleven fra Facebook-gruppe eller liknende der hun/han ønsket å være med	○	○	○	○	○

11) * Hvem har barnet ditt blitt digitalt mobbet av?

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Jenter	○	○	○	○	○
Gutter	○	○	○	○	○
En gruppe (f.eks. en gruppe venner, en skoleklasse, osv)	○	○	○	○	○

12) * Om skolens miljø

	Nesten aldri	Noen ganger	Ofte	Nesten alltid
Jeg føler at lærerne på skolen bryr seg om elevene	○	○	○	○
Hvor ofte prøver lærere eller andre voksne å stoppe det som foregår når en elev blir mobbet?	○	○	○	○
Hvor ofte prøver andre elever ved skolen å stoppe det som foregår når en elev blir mobbet?	○	○	○	○
Blir det ordnet opp i mobbeproblemet hvis det blir fortalt om det til andre?	○	○	○	○

13) * Generelt om mobbing (på skolen eller utenom skolen)

	Blir ikke mobbet	Stemmer ikke	Stemmer delvis	Stemmer helt
Føler du at eleven blir mobbet fordi det er noe med han eller henne som gir grunn til mobbingen?	○	○	○	○
Føler du at eleven blir mobbet av noen fordi det er noe med mobberen som får vedkommende til å gjøre det?	○	○	○	○

STERKE OG SVAKE SIDER (SDQ-Nor)

Vennligst kryss av for hvert utsagn: Stemmer ikke,

Stemmer delvis eller Stemmer helt. Prøv å svare på alt selv om du ikke er helt sikker eller synes utsagnet virker rart. Svar på grunnlag av elevens oppførsel de siste 2-3 månedene eller dette skoleåret.

NB: Husk å trykk *Send* til slutt!

	Stemmer ikke	Stemmer delvis	Stemmer helt
Omtenksom, tar hensyn til andre menneskers følelser	○	○	○
Rastløs, overaktiv, kan ikke være lenge i ro	○	○	○
Klager ofte over hodepine, vondt i magen eller kvalme	○	○	○
Deler gjerne med andre barn (godter, leker, andre ting)	○	○	○
Har ofte raserianfall eller dårlig humør	○	○	○
Ganske ensom, leker ofte alene	○	○	○
Som regel lydig, gjør vanligvis det voksne ber om	○	○	○
Mange bekymringer, virker ofte bekymret	○	○	○
Hjelpsom hvis noen er såret, lei seg eller føler seg dårlig	○	○	○
Stadig urolig eller i bevegelse	○	○	○
Har minst en god venn	○	○	○
Slåss ofte med andre barn eller mobber dem	○	○	○
Ofte lei seg, nedfor eller på gråten	○	○	○
Vanligvis likt av andre barn	○	○	○
Lett avledet, mister lett konsentrasjonen	○	○	○
Nervøs eller klengende i nye situasjoner, lett uttrygg	○	○	○
Snill mot yngre barn	○	○	○
Lyver eller jukser ofte	○	○	○
Plaget eller mobbet av andre barn	○	○	○
Tilbyr seg ofte å hjelpe andre (foreldre, lærere, andre barn)	○	○	○
Tenker seg om før hun / han handler (gjør noe)	○	○	○
Stjeler hjemme, på skolen eller andre steder	○	○	○
Kommer bedre overens med voksne enn med barn	○	○	○
Redd for mye, lett skremt	○	○	○
Fullfører oppgaver, god konsentrasjonsevne	○	○	○
Er faglig sterk i sentrale fag	○	○	○

Jeg går på

Velg alternativ

Først vil vi vite noe om kroppen din, ...

I den siste uka...

	Aldri	Sjelden	Av_og_til	Ofte	Alltid
... følte jeg meg syk	○	○	○	○	○
... har jeg hatt vondt i hodet eller magen	○	○	○	○	○
... var jeg trøtt eller slapp	○	○	○	○	○
... følte jeg meg sterk og full av energi	○	○	○	○	○

... så noe om hvordan du føler deg

I den siste uka...

	Aldri	Sjelden	Av_og_til	Ofte	Alltid
... lo jeg mye og hadde det moro	○	○	○	○	○
... kjedet jeg meg	○	○	○	○	○
... følte jeg meg alene	○	○	○	○	○
... var jeg redd	○	○	○	○	○

... og hva du synes om deg selv.

I den siste uka...

	Aldri	Sjelden	Av_og_til	Ofte	Alltid
... var jeg stolt av meg selv	○	○	○	○	○
... følte jeg meg bra	○	○	○	○	○
... likte jeg meg selv	○	○	○	○	○
... hadde jeg mange gode ideer	○	○	○	○	○

I de neste spørsmålene handler det om din familie ...

I den siste uka...

	Aldri	Sjelden	Av_og_til	Ofte	Alltid
… hadde jeg det bra sammen med foreldrene mine	○	○	○	○	○
… hadde jeg det hyggelig hjemme	○	○	○	○	○
… kranglet vi hjemme	○	○	○	○	○
… nektet foreldrene meg ting	○	○	○	○	○

… og så om venner.

I den siste uka...

	Aldri	Sjelden	Av_og_til	Ofte	Alltid
… lekte jeg med venner	○	○	○	○	○
… likte de andre barna meg	○	○	○	○	○
… hadde jeg det bra sammen med vennene mine	○	○	○	○	○
… følte jeg at jeg var annerledes enn de andre	○	○	○	○	○

… Nå vil vi gjerne vite noe om skolen.

I den siste uka...

	Aldri	Sjelden	Av_og_til	Ofte	Alltid
… klarte jeg oppgavene på skolen godt	○	○	○	○	○
… syntes jeg at undervisningen var god og interessant	○	○	○	○	○
… bekymret jeg meg for fremtiden	○	○	○	○	○
… var jeg redd for å gjøre det dårlig på skolen	○	○	○	○	○

OPPLEVELSER AV Å BLI MOBBET

En elev kan oppleve at slemme eller sårende ting. Slik plaging kan være med ord (f. eks. navnekalling, trusler), mot kroppen din(f.eks. slag) eller på annen måte (f.eks. rykter, å utestenge noen). Svar slik du har hatt det de siste 2-3 månedene.

12) * Mobbing

	Aldri	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Hvor ofte har du blitt mobbet i skoletiden?	○	○	○	○	○
Hvor ofte har du blitt mobbet utenom skoletiden?	○	○	○	○	○
Hvor ofte har du vært med å mobbe andre i skoletiden?	○	○	○	○	○
Hvor ofte har du vært med å mobbe andre utenom skoletiden?	○	○	○	○	○
Har du sett at andre elever har blitt mobbet?	○	○	○	○	○

Spesielle former for trakassering

Hvor ofte har noen mobbet deg på følgende måter:

	Aldri	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Kalt meg stygge ting	○	○	○	○	○
Sagt noe stygt om min familie	○	○	○	○	○
Prøvd å sparke meg	○	○	○	○	○
Vært ekkel med meg fordi jeg er annerledes	○	○	○	○	○
Truet meg	○	○	○	○	○
Ertet meg	○	○	○	○	○
Fått de andre elevene til å være slem mot meg	○	○	○	○	○
Prøvd å få meg til å være slem mot andre	○	○	○	○	○
Prøvd å lure meg til å gjøre noe galt	○	○	○	○	○
Prøvd å såre meg	○	○	○	○	○
Fått meg til å gjøre noe jeg ikke hadde lyst til	○	○	○	○	○
Prøvd å sparke snublefot på meg	○	○	○	○	○
Truet med å sladre på meg	○	○	○	○	○
Fortalt en løgn om meg	○	○	○	○	○
Prøvd å slå meg	○	○	○	○	○

14) * Hvem har mobbet deg?

	Aldri	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Jenter	○	○	○	○	○
Gutter	○	○	○	○	○
En gruppe (f.eks. en gruppe venner, en skoleklasse, osv.)	○	○	○	○	○

DIGITAL MOBBING

Digital mobbing skjer med mobiltelefoner eller internett når noen blir ertet, eller hvis noen legger ting på nettet som du ikke liker. Svar slik du har hatt det de siste 2-3 månedene.

	Aldri	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Hvor ofte har du blitt digitalt mobbet i skoletiden?	○	○	○	○	○
Hvor ofte har du blitt digitalt mobbet utenom skoletiden?	○	○	○	○	○
Hvor ofte har du vært med å mobbe andre digitalt i skoletiden?	○	○	○	○	○
Hvor ofte har du vært med å mobbe andre digitalt utenom skoletiden?	○	○	○	○	○
Har du sett at andre elever har blitt mobbet digitalt?	○	○	○	○	○

16) * Hvor ofte har noen mobbet deg digitalt på følgende måter? Dersom du ikke forstår spørsmålet kan du velge "Aldri".

	Aldri	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Ekle tekstmeldinger (SMS) eller ekle bilder/videoer til meg på mobilen	○	○	○	○	○
Ekle oppringinger på mobilen min	○	○	○	○	○
Skremmende eller stygg epost til meg	○	○	○	○	○
Ertet eller fornærmet meg på Internett (Facebook, Twitter, web osv.)	○	○	○	○	○
Ertet eller fornærmet meg ved hjelp av chat-meldinger i f.eks. Skype eller spill	○	○	○	○	○
Ertet eller fornærmet meg på blog	○	○	○	○	○
Ekle bilder/videoer om meg på Internett (Facebook, YouTube, web osv.)	○	○	○	○	○
Utestengt meg fra Facebook-gruppe eller liknende der jeg ønsket å være med	○	○	○	○	○

17) * Hvem har du selv blitt digitalt mobbet av?

	Aldri	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Jenter	○	○	○	○	○
Gutter	○	○	○	○	○
En gruppe (f.eks. en gruppe venner, en skoleklasse, osv)	○	○	○	○	○

18) * Om skolen

	Nesten aldri	Noen ganger	Ofte	Nesten alltid
Jeg føler at lærerne på skolen bryr seg om meg	○	○	○	○
Hvor ofte prøver lærere eller andre voksne å stoppe det som foregår når en elev blir mobbet?	○	○	○	○
Hvor ofte prøver andre elever ved skolen å stoppe det som foregår når en elev blir mobbet?	○	○	○	○
Blir det ordnet opp i mobbeproblemet hvis det blir fortalt om det til andre?	○	○	○	○

19) * Om mobbing (på skolen eller utenom skolen)

	Blir ikke mobbet	Stemmer ikke	Stemmer delvis	Stemmer helt
Føler du at du blir mobbet fordi det er noe med deg som gir grunn til mobbingen?	○	○	○	○
Føler du at du blir mobbet av noen fordi det er noe med ham eller henne som får han eller hun til å gjøre det?	○	○	○	○

STERKE OG SVAKE SIDER (SDQ-Nor)

Kryss av for hvert utsagn: Stemmer ikke, Stemmer delvis eller Stemmer helt. Prøv å svare på alt selv om du ikke er helt sikker eller synes utsagnet virker rart. Svar på grunnlag av hvordan du har hatt det de siste 2-3 månedene.

	Stemmer ikke	Stemmer delvis	Stemmer helt
Jeg prøver å være hyggelig mot andre. Jeg bryr meg om hva de føler	○	○	○
Jeg er rastløs. Jeg kan ikke være lenge i ro	○	○	○
Jeg har ofte hodepine, vondt I magen eller kvalme	○	○	○
Jeg deler gjerne med andre (mat, spill andre ting)	○	○	○
Jeg blir ofte sint og har kort lunte	○	○	○
Jeg er ofte for meg selv. Jeg gjør som regel ting alene	○	○	○
Jeg gjør som regel det jeg får beskjed om	○	○	○
Jeg bekymrer meg mye	○	○	○
Jeg stiller opp hvis noen er såret, lei seg eller føler seg dårlig	○	○	○
Jeg er stadig urolig eller i bevegelse	○	○	○
Jeg har en eller flere gode venner	○	○	○
Jeg slåss mye. Jeg kan få andre til å gjøre det jeg vil	○	○	○
Jeg er ofte lei meg, nedfor eller på gråten	○	○	○
Jeg blir som regel likt av andre på min alder	○	○	○
Jeg blir lett avledet, jeg synes det er vanskelig å konsentrere meg	○	○	○
Jeg blir nervøs i nye situasjoner. Jeg blir lett usikker	○	○	○
Jeg er snill mot de som er yngre enn meg	○	○	○
Jeg blir ofte beskyldt for å lyve eller jukse	○	○	○
Andre barn eller unge plager eller mobber meg	○	○	○
Jeg tilbyr meg ofte å hjelpe andre (foreldre, lærere, andre barn, unge)	○	○	○
Jeg tenker meg om før jeg handler (gjør noe)	○	○	○
Jeg tar ting som ikke er mine			

21) * Hjemme

	0-10	11-25	26-100	101-250	over 250
Hvor mange bøker er det hjemme hos dere?	○	○	○	○	○

MINE ERFARINGER MED VANSKER

Samlet, synes du at du har vansker på ett eller flere av følgende områder: med følelser, konsentrasjon, oppførsel eller med å komme overens med andre mennesker?

○ Nei ○ Ja - små vansker ○ Ja - tydelige vansker ○ Ja - alvorlige vansker

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- (
  - Hvis "Erfaringer med vansker" *er lik* "Ja - alvorlige vansker"
  - eller
  - Hvis "Erfaringer med vansker" *er lik* "Ja - tydelige vansker"
  - eller
  - Hvis "Erfaringer med vansker" *er lik* "Ja - små vansker"
-)

23) * Hvor lenge har disse vanskene vært tilstede?

○ Mindre enn en måned ○ 1 - 5 måneder ○ 6 - 12 måneder ○ Mer enn et år

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- (
  - Hvis "Erfaringer med vansker" *er lik* "Ja - små vansker"
  - eller
  - Hvis "Erfaringer med vansker" *er lik* "Ja - alvorlige vansker"
  - eller
  - Hvis "Erfaringer med vansker" *er lik* "Ja - tydelige vansker"
-)

24) * Forstyrrer eller plager vanskene deg?

○ Ikke i det hele tatt ○ Bare litt ○ En god del ○ Mye

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- (
  - Hvis "Erfaringer med vansker" *er lik* "Ja - tydelige vansker"
  - eller
  - Hvis "Erfaringer med vansker" *er lik* "Ja - alvorlige vansker"
  - eller
  - Hvis "Erfaringer med vansker" *er lik* "Ja - små vansker"
-)

25) * Virker vanskene inn på livet ditt på noen av disse områdene?

	Ikke i det hele tatt	Bare litt	En god del	Mye
Hjemme/i familien	○	○	○	○
Forhold til venner	○	○	○	○
Læring på skolen	○	○	○	○
Fritidsaktiviteter	○	○	○	○

Denne informasjonen vises kun i forhåndsvisningen

Følgende kriterier må være oppfylt for at spørsmålet skal vises for respondenten:

- (
  - Hvis "Erfaringer med vansker" *er lik* "Ja - små vansker"
  - eller
  - Hvis "Erfaringer med vansker" *er lik* "Ja - alvorlige vansker"
  - eller
  - Hvis "Erfaringer med vansker" *er lik* "Ja - tydelige vansker"
-)

26) * Er vanskene en belastning for de rundt deg (familie, venner, lærere osv.)?

○ Ikke i det hele tatt ○ Bare litt ○ En god del ○ Mye

27) Her kan du skrive ned dine tanker og følelser (hvis, for eksempel, et av spørsmålene eller områdene/temaene vakte spørsmål eller tanker). Hvordan opplevde du dette spørreskjemaet?

Lærer 14/15

Trivsel i Tromsø, *lærerskjema.*

Kjære kontaktlærer,

Takk for at du og din skole bidrar til undersøkelsen om dine elevers trivsel og helsemessige livskvalitet. Det fylles ut ett skjema for hver elev. Alle skjema avidentifiseres før de blir analysert.

Vær vennlig å ta hensyn til følgende når du svarer:

- Les nøye gjennom hvert spørsmål,
- tenk over hvordan eleven hadde det de siste 2-3 månedene, og
- kryss av det svaret som passer best for hver elev, og
- husk å trykke **"send"** når du er ferdig!

Merk av eller fyll ut !

Eleven er:

- ○ en jente
- ○ en gutt

Elevens fornavn:

Elevens etternavn:

Eleven går i

- ○ 4. trinn ○ 5. trinn ○ 6. trinn ○ 7. trinn ○ 8. trinn
- ○ 9. trinn ○ 10. trinn

Eleven går på

Velg alternativ

OPPLEVELSER AV KLASSISK MOBBING

En elev kan bli utsatt for negative eller sårende handlinger ofte eller av og til, og fra en eller flere elever. Denne plagingen kan være verbal (f. eks. navnekalling, trusler), fysisk (f.eks. slag) eller psykisk (f.eks. rykter, å fryse ut/ekskludere noen). Svar på grunnlag av det du selv kjenner til for din elev de siste 2-3 månedene.

6) * Generell mobbing

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Hvor ofte har eleven blitt mobbet i skoletiden?	○	○	○	○	○
Hvor ofte har eleven blitt mobbet utenom skoletiden?	○	○	○	○	○
Hvor ofte har eleven vært med på å mobbe andre i skoletiden?	○	○	○	○	○
Hvor ofte har eleven vært med på å mobbe andre utenom skoletiden?	○	○	○	○	○
Forteller eleven at han/hun har sett andre elever bli mobbet?	○	○	○	○	○

Spesielle former for trakassering

Hvor ofte har noen mobbet eleven på følgende måter:

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Kalt eleven stygge ting	○	○	○	○	○
Sagt noe stygt om elevens familie	○	○	○	○	○
Prøvd å sparke eleven	○	○	○	○	○
Vært ekkel med eleven fordi vedkommende er annerledes	○	○	○	○	○
Truet eleven	○	○	○	○	○
Ertet eleven	○	○	○	○	○
Fått de andre elevene til å være slem mot eleven	○	○	○	○	○
Prøvd å få eleven til å være slem mot andre elever	○	○	○	○	○
Prøvd å lure eleven til å gjøre noe galt	○	○	○	○	○
Prøvd å såre eleven	○	○	○	○	○
Fått eleven til å gjøre noe vedkommende ikke hadde lyst til	○	○	○	○	○
Prøvd å sparke snublefot på eleven	○	○	○	○	○
Truet med å sladre på eleven	○	○	○	○	○
Fortalt en løgn om eleven	○	○	○	○	○
Prøvd å slå eleven	○	○	○	○	○

8) * Hvem har mobbet eleven?

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Jenter	○	○	○	○	○
Gutter	○	○	○	○	○
En gruppe (f.eks. en gruppe venner, en skoleklasse, osv.)	○	○	○	○	○

DIGITAL MOBBING

Digital mobbing skjer via mobiltelefoner eller internett når personer blir ertet, eller hvis noen legger ut noe på nettet som person ikke liker. Svar på grunnlag av det du selv kjenner til for din elev de siste 2-3 månedene.

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Hvor ofte har eleven blitt digitalt mobbet i skoletiden?	○	○	○	○	○
Hvor ofte har eleven blitt digitalt mobbet utenom skoletiden?	○	○	○	○	○
Hvor ofte har eleven vært med på å mobbe andre digitalt i skoletiden?	○	○	○	○	○
Hvor ofte har eleven vært med på å mobbe andre digitalt utenom skoletiden?	○	○	○	○	○
Forteller eleven at han/hun har sett andre elever bli digitalt mobbet?	○	○	○	○	○

10) * Hvor ofte har noen mobbet eleven digitalt på følgende måter?

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Ekle tekstmeldinger (SMS) eller ubehagelige bilder/videoer på mobilen til eleven	○	○	○	○	○
Ekle oppringinger på mobilen til eleven	○	○	○	○	○
Skremmende eller stygg epost til eleven	○	○	○	○	○
Ertet eller fornærmet eleven på Internett (Facebook, Twitter, web osv.)	○	○	○	○	○
Ertet eller fornærmet eleven ved hjelp av chat-meldinger i f.eks. Skype eller spill	○	○	○	○	○
Ertet eller fornærmet eleven ved innlegg/kommentarer på blogg	○	○	○	○	○
Ubehagelige bilder/videoer om eleven på Internett (Facebook, YouTube, web osv.)	○	○	○	○	○
Utestengt eleven fra Facebook-gruppe eller liknende der hun/han ønsket å være med	○	○	○	○	○

11) * Hvem har barnet ditt blitt digitalt mobbet av?

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Jenter	○	○	○	○	○
Gutter	○	○	○	○	○
En gruppe (f.eks. en gruppe venner, en skoleklasse, osv)	○	○	○	○	○

12) * Om skolens miljø

	Nesten aldri	Noen ganger	Ofte	Nesten alltid
Jeg føler at lærerne på skolen bryr seg om elevene	○	○	○	○
Hvor ofte prøver lærere eller andre voksne å stoppe det som foregår når en elev blir mobbet?	○	○	○	○
Hvor ofte prøver andre elever ved skolen å stoppe det som foregår når en elev blir mobbet?	○	○	○	○
Blir det ordnet opp i mobbeproblemet hvis det blir fortalt om det til andre?	○	○	○	○

13) * Generelt om mobbing (på skolen eller utenom skolen)

	Blir ikke mobbet	Stemmer ikke	Stemmer delvis	Stemmer helt
Føler du at eleven blir mobbet fordi det er noe med han eller henne som gir grunn til mobbingen?	○	○	○	○
Føler du at eleven blir mobbet av noen fordi det er noe med mobberen som får vedkommende til å gjøre det?	○	○	○	○

STERKE OG SVAKE SIDER (SDQ-Nor)

Vennligst kryss av for hvert utsagn: Stemmer ikke,

Stemmer delvis eller Stemmer helt. Prøv å svare på alt selv om du ikke er helt sikker eller synes utsagnet virker rart. Svar på grunnlag av elevens oppførsel de siste 2-3 månedene eller dette skoleåret.

NB: Husk å trykk *Send* til slutt!

	Stemmer ikke	Stemmer delvis	Stemmer helt
Omtenksom, tar hensyn til andre menneskers følelser	○	○	○
Rastløs, overaktiv, kan ikke være lenge i ro	○	○	○
Klager ofte over hodepine, vondt i magen eller kvalme	○	○	○
Deler gjerne med andre barn (godter, leker, andre ting)	○	○	○
Har ofte raserianfall eller dårlig humør	○	○	○
Ganske ensom, leker ofte alene	○	○	○
Som regel lydig, gjør vanligvis det voksne ber om	○	○	○
Mange bekymringer, virker ofte bekymret	○	○	○
Hjelpsom hvis noen er såret, lei seg eller føler seg dårlig	○	○	○
Stadig urolig eller i bevegelse	○	○	○
Har minst en god venn	○	○	○
Slåss ofte med andre barn eller mobber dem	○	○	○
Ofte lei seg, nedfor eller på gråten	○	○	○
Vanligvis likt av andre barn	○	○	○
Lett avledet, mister lett konsentrasjonen	○	○	○
Nervøs eller klengende i nye situasjoner, lett uttrygg	○	○	○
Snill mot yngre barn	○	○	○
Lyver eller jukser ofte	○	○	○
Plaget eller mobbet av andre barn	○	○	○
Tilbyr seg ofte å hjelpe andre (foreldre, lærere, andre barn)	○	○	○
Tenker seg om før hun / han handler (gjør noe)	○	○	○
Stjeler hjemme, på skolen eller andre steder	○	○	○
Kommer bedre overens med voksne enn med barn	○	○	○
Redd for mye, lett skremt	○	○	○
Fullfører oppgaver, god konsentrasjonsevne	○	○	○
Er faglig sterk i sentrale fag	○	○	○

Foreldre 14/15

Trivsel i Tromsø, *Foreldreversjon.*

Kjære foreldre/foresatte,

Takk for at du har sagt ja til å fylle ut dette spørreskjemaet om ditt barns trivsel og helsemessige livskvalitet. Alle skjema behandles konfidensielt og avidentifiseres før de blir analysert.

Vær vennlig å ta hensyn til følgende når du svarer:

- Les nøye gjennom hvert spørsmål,
- tenk over hvordan barnet hadde det den siste uka (eller de siste 2-3 månedene hvis det spørres om det), og
- kryss i hver del av på det svaret som passer best for barnet ditt.

Merk av eller fyll ut !

Barnet mitt er:

- ○ en jente
- ○ en gutt

Barnets fornavn er:

Barnets etternavn er:

Barnet går i

○ 4. trinn ○ 5. trinn ○ 6. trinn ○ 7. trinn ○ 8. trinn
○ 9. trinn ○ 10. trinn

Barnet går på

Velg alternativ

Du er:

○ Mor ○ Far ○ Annet

Fysis velvære

Den siste uka...

	Aldri / vet ikke	Sjelden	Av_og_til	Ofte	Alltid
… følte barnet mitt seg syk	○	○	○	○	○
… har barnet mitt hatt vondt i hodet eller magen	○	○	○	○	○
… var barnet mitt trett og slapp	○	○	○	○	○
… følte barnet mitt seg sterk og full av energi	○	○	○	○	○

Psykisk velvære

I den siste uka...

	Aldri / vet ikke	Sjelden	Av_og_til	Ofte	Alltid
… lo barnet mitt mye og hadde det moro	○	○	○	○	○
… hadde barnet mitt ikke lyst til noe	○	○	○	○	○
… følte barnet mitt seg alene	○	○	○	○	○
… følte barnet mitt seg engstelig eller usikker	○	○	○	○	○

Selvbildet

I den siste uka...

	Aldri / vet ikke	Sjelden	Av_og_til	Ofte	Alltid
… var barnet mitt stolt av seg selv	○	○	○	○	○
… følte barnet mitt seg helt på topp	○	○	○	○	○
… likte barnet mitt seg selv	○	○	○	○	○
… hadde barnet mitt mange gode ideer	○	○	○	○	○

Familie

I den siste uka...

	Aldri / vet ikke	Sjelden	Av_og_til	Ofte	Alltid
… kom barnet mitt godt overens med oss foreldre	○	○	○	○	○
… hadde barnet mitt det hyggelig hjemme	○	○	○	○	○
… kranglet vi hjemme	○	○	○	○	○
… følte barnet mitt seg dominert av meg	○	○	○	○	○

Venner

I den siste uka...

	Aldri / vet ikke	Sjelden	Av_og_til	Ofte	Alltid
… gjorde barnet mitt noe sammen med venner	○	○	○	○	○
… ble barnet mitt godt likt av de andre	○	○	○	○	○
… kom barnet mitt godt overens med vennene sine	○	○	○	○	○
… hadde barnet mitt følelsen av å være annerledes enn de andre	○	○	○	○	○

Skole

I den siste uka da barnet mitt var på skolen ...

	Aldri / vet ikke	Sjelden	Av_og_til	Ofte	Alltid
… klarte barnet mitt oppgavene på skolen godt	○	○	○	○	○
… syntes barnet mitt at undervisningen var god og interessant	○	○	○	○	○
… bekymret barnet mitt seg for fremtiden	○	○	○	○	○
… var barnet mitt redd for å gjøre det dårlig på skolen eller å få dårlige karakterer	○	○	○	○	○

OPPLEVELSER AV Å BLI MOBBET

En elev kan bli utsatt for negative eller sårende handlinger ofte eller av og til, og fra en eller flere elever. Denne plagingen kan være verbal (f. eks. navnekalling, trusler), fysisk (f.eks. slag) eller psykisk (f.eks. rykter, å fryse ut/ekskludere noen). Svar på grunnlag av det du selv kjenner til for barnet ditt de siste 2-3 månedene.

13) * Generell Mobbing

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Hvor ofte har barnet ditt blitt mobbet i skoletiden?	○	○	○	○	○
Hvor ofte har barnet ditt blitt mobbet utenom skoletiden?	○	○	○	○	○
Hvor ofte har barnet ditt vært med å mobb andre i skoletiden?	○	○	○	○	○
Hvor ofte har barnet ditt vært med å mobb andre utenom skoletiden?	○	○	○	○	○
Forteller barnet ditt at det har sett andre elever bli mobbet?	○	○	○	○	○

Spesielle former for trakassering

Hvor ofte har noen mobbet barnet ditt på følgende måter:

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Kalt barnet ditt stygge ting	○	○	○	○	○
Sagt noe stygt om barnets familie	○	○	○	○	○
Prøvd å sparke barnet	○	○	○	○	○
Vært ekkel med barnet fordi det er annerledes	○	○	○	○	○
Truet barnet	○	○	○	○	○
Ertet barnet	○	○	○	○	○
Fått de andre elevene til å være slem mot barnet	○	○	○	○	○
Prøvd å få barnet ditt til å være slem mot andre	○	○	○	○	○
Prøvd å lure barnet ditt til å gjøre noe galt	○	○	○	○	○
Prøvd å såre barnet ditt	○	○	○	○	○
Fått barnet ditt til å gjøre noe det ikke hadde lyst til	○	○	○	○	○
Prøvd å sparke snublefot på barnet ditt	○	○	○	○	○
Truet med å sladre på barnet ditt	○	○	○	○	○
Fortalt en løgn om barnet ditt	○	○	○	○	○
Prøvd å slå barnet ditt	○	○	○	○	○

15) * Hvem har mobbet barnet ditt?

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Jenter	○	○	○	○	○
Gutter	○	○	○	○	○
En gruppe (f.eks. en gruppe venner, en skoleklasse, osv.)	○	○	○	○	○

DIGITAL MOBBING

Digital mobbing skjer via mobiltelefoner eller internett når personer blir ertet, eller hvis noen legger ut noe på nettet som personen ikke liker. Svar på grunnlag av det du selv kjenner til for din datter/sønn de siste 2-3 månedene.

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Hvor ofte har barnet ditt blitt digitalt mobbet i skoletiden?	○	○	○	○	○
Hvor ofte har barnet ditt blitt digitalt mobbet utenom skoletiden?	○	○	○	○	○
Hvor ofte har barnet ditt vært med å mobb andre digitalt i skoletiden?	○	○	○	○	○
Hvor ofte har barnet ditt vært med å mobb andre digitalt utenom skoletiden?	○	○	○	○	○
Forteller barnet ditt at det har sett andre elever bli digitalt mobbet?	○	○	○	○	○

17) * Hvor ofte har noen mobbet barnet ditt digitalt på følgende måter? Dersom spørsmålet er uforståelig på grunn av tekniske begreper kan du velge alternativet "Aldri".

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Ekle tekstmeldinger (SMS) eller ubehagelige bilder/videoer på mobilen til barnet ditt	○	○	○	○	○
Ekle oppringinger på mobilen til barnet ditt	○	○	○	○	○
Skremmende eller stygg epost til barnet ditt	○	○	○	○	○
Ertet eller fornærmet barnet ditt på Internett (Facebook, Twitter, web osv.)	○	○	○	○	○
Ertet eller fornærmet barnet ditt ved hjelp av chat-meldinger i f.eks. Skype eller spill	○	○	○	○	○
Ertet eller fornærmet barnet ditt ved innlegg/kommentarer på blog	○	○	○	○	○
Ubehagelige bilder/videoer om barnet ditt på Internett (Facebook, YouTube, web osv.)	○	○	○	○	○
Utestengt barnet ditt fra Facebook-gruppe eller liknende der han/hun ønsket å være med	○	○	○	○	○

18) * Hvem har barnet ditt blitt digitalt mobbet av?

	Aldri / vet ikke	Bare en eller to ganger	To eller tre ganger i måneden	Omtrent en gang i uken	Mange ganger per uke
Jenter	○	○	○	○	○
Gutter	○	○	○	○	○
En gruppe (f.eks. en gruppe venner, en skoleklasse, osv)	○	○	○	○	○

19) * Om skolens miljø

	Nesten aldri / vet ikke	Noen ganger	Ofte	Nesten alltid
Jeg føler at lærerne på skolen bryr seg om barnet mitt	○	○	○	○
Hvor ofte prøver lærere eller andre voksne å stoppe det som foregår når en elev blir mobbet?	○	○	○	○
Hvor ofte prøver andre elever ved skolen å stoppe det som foregår når en elev blir mobbet?	○	○	○	○
Blir det ordnet opp i mobbeproblemet hvis det blir fortalt om det til andre?	○	○	○	○

20) * Generelt om mobbing (på skolen eller utenom skolen)

	Blir ikke mobbet	Stemmer ikke	Stemmer delvis	Stemmer helt
Føler du at barnet ditt blir mobbet fordi det er noe med han eller henne som gir grunn til mobbingen?	○	○	○	○
Føler du at barnet ditt blir mobbet av noen fordi det er noe med mobberen som får vedkommende til å gjøre det?	○	○	○	○

STERKE OG SVAKE SIDER (SDQ-Nor)

Vennligst kryss av for hvert utsagn: Stemmer ikke, Stemmer delvis eller Stemmer helt. Prøv å svare på alt selv om du ikke er helt sikker eller synes utsagnet virker rart. Svar på grunnlag av barnets oppførsel de siste 2-3 månedene eller dette skoleåret.

	Stemmer ikke	Stemmer delvis	Stemmer helt
Omtenksom, tar hensyn til andre menneskers følelser	○	○	○
Rastløs, overaktiv, kan ikke være lenge i ro	○	○	○
Klager ofte over hodepine, vondt i magen eller kvalme	○	○	○
Deler gjerne med andre barn (godter, leker, andre ting)	○	○	○
Har ofte raserianfall eller dårlig humør	○	○	○
Ganske ensom, leker ofte alene	○	○	○
Som regel lydig, gjør vanligvis det voksne ber om	○	○	○
Mange bekymringer, virker ofte bekymret	○	○	○
Hjelpsom hvis noen er såret, lei seg eller føler seg dårlig	○	○	○
Stadig urolig eller i bevegelse	○	○	○
Har minst en god venn	○	○	○
Slåss ofte med andre barn eller mobber dem	○	○	○
Ofte lei seg, nedfor eller på gråten	○	○	○
Vanligvis likt av andre barn	○	○	○
Lett avledet, mister lett konsentrasjonen	○	○	○
Nervøs eller klengende i nye situasjoner, lett uttrygg	○	○	○
Snill mot yngre barn	○	○	○
Lyver eller jukser ofte	○	○	○
Plaget eller mobbet av andre barn	○	○	○
Tilbyr seg ofte å hjelpe andre (foreldre, lærere, andre barn)	○	○	○
Tenker seg om før hun / han handler (gjør noe)	○	○	○
Stjeler hjemme, på skolen eller andre steder	○	○	○
Kommer bedre overens med voksne enn med barn	○	○	○
Redd for mye, lett skremt	○	○	○
Fullfører oppgaver, god konsentrasjonsevne	○	○	○
Er faglig sterk i sentrale fag	○	○	○

22) * Foreldre

	Grunnskole	Videregående skole	Fagskole	Universitet/ høgskole
Hva er høyeste utdanning for barnets foreldre?	○	○	○	○

	0-10	11-25	26-100	101-250	over 250
Hvor mange bøker er det hjemme hos dere?	○	○	○	○	○