Gifted Education in Norway

A mixed-method study with teachers and students in Norwegian comprehensive school

Astrid Knutsdatter Lenvik

Thesis for the degree of Philosophiae Doctor (PhD)
University of Bergen, Norway
2022

UNIVERSITY OF BERGEN

Gifted Education in Norway

A mixed-method study with teachers and students in Norwegian comprehensive school

Astrid Knutsdatter Lenvik

Thesis for the degree of Philosophiae Doctor (PhD)
at the University of Bergen

Date of defense: 30.09.2022

Year: 2022

Title: Gifted Education in Norway

Name: Astrid Knutsdatter Lenvik

Print: Skipnes Kommunikasjon / University of Bergen

Scientific environment

This thesis was written in the Department of Education, Faculty of Psychology, at the University of Bergen. I was a member of the research groups *SNE* (*Special Needs Education)* at the Department of Education and *BCLG (Bergen Cognition and Learning Group)* at the Department of Biological and Medical Psychology. I followed the research school GHIG (Graduate School of Human Interaction and Growth) at the Faculty of Psychology and the research school WNGERII (Western Norway Graduate School of Educational Research) at the Department of Education, Faculty of Psychology.

I received a research grant of $15,000 from NORAM (Norway-America Association) for a mobility stay at the University of California, Berkeley, in fall 2018 and spring 2019.

Acknowledgments

According to an African proverb, it takes a village to raise a child. I would like to continue this by saying that it takes a village to raise a Ph.D. candidate. Even though only my name stands on the cover of this thesis, I could not have completed this endeavor without my wonderful village of helpful and supporting supervisors, colleagues, family, and friends. This section is not enough to convey my gratitude to you, and I thank you all from the bottom of my heart!

First, I must thank my two exceptional supervisors, my primary supervisor, Associate Professor Lise Øen Jones, and my additional supervisor, Associate Professor Elisabeth Hesjedal. You supported me when I needed it and challenged me professionally and personally when needed that. I may not always have agreed with your critiques and comments, but I know you have made this thesis infinitely better than what I could have achieved on my own. I am grateful for the opportunity to develop my own survey and be hands-on in all aspects of the data collection and analysis. However, I could not have done this without the wisdom and support of my supervisors. Thank you, Lise, for constantly arguing about the statistics and providing support in my quantitative endeavor. Thank you, Elisabeth, for being a Devil's advocate for the qualitative material. I am genuinely grateful to have you both as supervisors.

Thank you to all my informants for letting me take a moment of your time, for your valuable comments and insights, and for providing me with a better understanding of gifted education in Norway!

Special thanks are due to Associate Professor Bjarte Furnes and Professor Ingrid Holsen for their valuable comments on and critique of my midterm evaluation.

Thank you to the Department of Education for providing me with the opportunity to write this thesis. I am thankful to my wonderful colleagues at the department for their laughter and discussions in the lunchroom, interest, and support in my work. I am grateful for the support from my research group Special Needs Education. My fellow Ph.D. candidates have been incredibly wonderful these five years, especially Kari

Hagatun, Øyvind Wiik Halvorsen and Fride Haram Klykken who supported me during the last stressful months, those in GHIG (the gang from Granca 2017!), PsykStip, and others I have met and spoken with during my time.

I am grateful to Professor Trond Petersen at the University of California, Berkeley, and Professor Liv Duesund at the University of Oslo for their support and invitation to be an international scholar at UCB. I will forever be grateful for this opportunity!

Thank you so much Professor Peder Haug for your insightful comments, positive affirmation, and harsh critique on my synopsis. Your comments have truly improved my thesis, and I feel safer knowing that you have helped me on my way.

I must also thank my outstanding friends in Skjold Nesttun Janitsjar. You have given me respites from my strenuous work and provided me with musical challenges and delightful musical concerts and arrangements that helped me take a mental break.

Thank you to all of my family, both relational and in-laws, for your never-ending support, interest, and comfort. You are all a blessing!

Last but especially not least, I am forever grateful to Pål. You never continue to surprise me with your unconditional love for me; the way you quarrel and discuss everything; and your support, comfort, and patience. Times have been tough, but we made it through this as well. Mikael, Alva, and Thor, I love you to the moon and back! Thank you for your laughter, questions, curiosity, and love. You will always be my most valuable accomplishment!

Abstract

Every student in Norway shall be provided for within an inclusive and equitable education adapted to the needs and predispositions of the individual student. This includes students with extraordinary learning potential. However, research on this group of students within the Norwegian context and educational system is scarce. We do not know much about the students' experiences, what knowledge teachers have, how the education is adapted to the needs of each student, and how the educational system in Norway facilitates gifted students.

This thesis investigates gifted education in Norway through a mixed-method approach with a quantitative descriptive survey with 339 teachers and inductive qualitative interviews with 17 students. The main research question is as follows: *how do Norwegian gifted high school students experience school, and what knowledge do Norwegian teachers have about gifted students?*

International research shows that teachers may have misconceptions regarding gifted education, such as stereotypical views and characterization of gifted students, negative attitudes toward gifted education in general, or acceleration and ability grouping. Internationally, gifted students complain about education that is too slow, repetitive, and unchallenging and does not consider their individual needs.

Although there is debate within the research community on definitions of giftedness and gifted education, there is consensus that gifted students require special accommodation and facilitation to develop their gifts appropriately.

Article 1 in this thesis investigates teachers' self-evaluated need for knowledge about giftedness and their characterization and description of gifted students. This study shows that teachers in Norway want more knowledge about giftedness, gifted students, and proper educational practices. The teachers display a positive view of gifted students, focusing on achievement in school and positive behaviors, except for disruptiveness. The teachers further report that they have gained their knowledge about gifted students mostly from their practice, rather than formal teacher education.

Article 2 explores how gifted students in Norway experience their education through an inductive thematic analysis of semi-structured interviews. The themes developed in the analysis reveal systematic challenges within the educational system; the joy of learning these students have; and problematic issues such as being disrupted, boredom, frustration with repetition, and a need for an adapted education.

Article 3 utilizes a combination of results from the quantitative survey and the qualitative interview study when investigating how education is adapted for gifted students in Norway. Both teachers and students report similar enrichment strategies and systematic challenges regarding facilitation. There were differences in how the two groups talked about group work and acceleration. The students mentioned group work in mixed-ability groups, and the teachers wanted to utilize more homogenous groups. The students mentioned full-time acceleration and subject acceleration, while the teachers only reported acceleration in the form using books and assignments intended for a higher academic level.

In this thesis, the results of the two studies and three articles are discussed in light of current research, theories regarding gifted education, educational history and the educational system in Norway, special education, and Foucault's notion of power in genealogy.

List of Publications

Lenvik, A., Jones, L. Ø., Hesjedal, E. (2022). Teacher's perspective on extraordinary learning potential in Norway: A descriptive study with primary and secondary teachers. Manuscript submitted for publication.

Lenvik, A., Hesjedal, E., Jones, L. Ø., (2021). "We want to be educated!" A thematic analysis of gifted students' view on education in Norway. *Nordic Studies in Education, 41*(3), 219–238. https://doi.org.10.23865/nse.v41.2621

Lenvik, A., Jones, L. Ø., Hesjedal, E. (2022). Adapted education for gifted students in Norway: A mixed-methods study. Manuscript submitted for publication.

Contents

Enclosed

Article 1: Teachers' perspective on extraordinary learning potential in Norway: A descriptive study with primary and secondary teachers.

Article 2: "We want to be educated!" A thematic analysis of gifted students' view on education in Norway.

Article 3: Adapted education for gifted students in Norway: A mixed-methods study.

Appendices

Appendix 1: Supplementary files

Appendix 2: Ethic approval

Appendix 3: Information letter for interview and survey

1. Introduction, background, and research design

I first encountered concerns about gifted education when I was studying for my bachelor's degree in special needs education. I came across a newspaper article about a gifted girl who dropped out of school in Norway and moved to Denmark to attend a special school for gifted children. Her experience in the Norwegian educational system was so bad that she developed anxiety regarding school. What took me most by surprise when I read this article was that I had not heard about these children before, not even during my studies on students with special needs.

All students in Norway have the right to an education adapted according to their needs and predispositions; this includes gifted students (*The Education Act,* 1998). However, the myth that gifted students manage on their own and do not require special attention has been and may still be prevalent in Norway (Idsøe, 2014). Gifted students who do not receive an education adapted to their needs may underachieve, develop disruptive behaviors, have social and emotional issues, lose their initial motivation for school, become bored and disinterested, and, in a worst-case scenario, drop out of school (Abu-Hamour & Al-Hmouz, 2013; Baker et al., 1998; Cross, 2014; Idsøe, 2014; Subotnik et al., 2011). How are gifted students then accommodated in Norwegian schools, how do teachers adapt the instruction and curriculum, and how do gifted students experience their education? These are the main questions I had when I began this thesis.

In this thesis, I examine gifted education in Norway from the perspectives of both teachers and students. I use "students," not "pupils," as the term for those attending comprehensive school throughout this thesis because this is the term used in the three articles included in the thesis. In Article 2, I also mention "teacher-students," that is, those attending higher education to become teachers. Another term used is "pre-service teachers." Unless explicitly mentioned, the reader can assume that "student" refers to a child between the ages of 6 and 15 attending primary or secondary school. I have not included upper secondary school in my study. The goal of this doctoral

study is to obtain a better understanding of how we provide for gifted students in the Norwegian comprehensive educational system.

In this chapter, I will briefly present the purpose of this study and the overarching theme of gifted education. I will first present the background for this study and then introduce the aim, research questions, and research design.

1.1 Background

Mankind has been interested in intellect, especially the categorization of different intellectual levels and types of genius, for a long time, from Hippocrates, who suggested the brain was the center of intelligence in 400 BCE, to Huarte, who wrote about differential psychology and advocated ability testing in 1575; Esquirol, who proposed several levels of intellectual disability in 1838; and Binet and Simon, who developed the Binet-Simon Scale in 1905, to name a few (Sattler, 2020). Jacques Inaudi, a poor boy from Italy, was studied for his remarkable skills in mathematics by, among other, Binet, who concluded that he had extraordinary mathematical ability but was average in other areas (Idsøe & Skogen, 2021).

Lewis Terman wrote “The genetic studies of genius” and is considered by some to be the father of gifted education (Cravens, 1992; Terman, 1926). Terman further developed the Binet-Simon Intelligence scale into the Standford-Binet (Sattler, 2020), and he used this scale to study a vast pool of children with measured IQs of 140 or above (Terman, 1926). Terman defines giftedness as a cognitive construct based on the normality distribution of intelligence. He also describes a certain hereditary aspect, lending weight to the genetic component of IQ. Terman also emphasized that children with extraordinary abilities required extraordinarily stimulating education (Idsøe & Skogen, 2021).

Since Terman, studies on giftedness have spread from psychology and the cognitive approach to education, sociology, and questions about inclusion and equity in gifted education.

In Europe, the different countries have different ways of adapting education to gifted students, from entire schools for the gifted to no adaptation (Mönks & Pflüger, 2005). In 1994, the European Union Parliamentary Assembly expressed that gifted students have a particular educational need for differentiation and adaption and that the various EU countries should implement strategies for adaptation and facilitation (Mönks & Pflüger, 2005).

Frantz and McClarty (2016) show, in their study, that there are differences between countries related to egalitarianism versus meritocracy. Within the meritocratic doctrine, there are specialized gifted schools within the public education system. Nineteen of the 38 countries in their study have national legislation or gifted education policies. Twelve countries have gifted education policies only at the state/provincial or local levels, including the UK, the US, and Iceland. Seven countries have no legislation regarding gifted education; these include the Nordic countries of Norway, Sweden, Denmark, and Finland (Frantz & McClarty, 2016). The Nordic countries are considered egalitarian, and within this culture, Frantz and McClarty found three different approaches to gifted education. These three approaches provide differentiated or adapted education for all students, including gifted education within the umbrella of special education and inclusive strategies for including underrepresented groups in gifted education (Frantz & McClarty, 2016). Norway utilizes the approach of differentiated or adapted education for all students.

Gifted education in Norway must be seen within the overall educational system. The overall aim is to provide an inclusive, equitable education adapted to the individual student's needs. Nine out of ten Norwegian students in primary and secondary school attend their nearest public school, which implies that the population in public schools is as diverse as the rest of society. Adapted education is regulated through the

Education Act § 1-3, which states that education should be adapted to every student's individual needs and predispositions. However, this is not an individual right for each student. Schools and teachers abide this principle through varied instruction for the diverse student population. If a student has needs and a predisposition that requires greater and more individual adaption, they have the right to special education, as seen in § 5-1. According to the National Directorate for Education and Training (NDET), schools cannot provide special education for students who learn more quickly than their peers and thus require greater adaptation. According to NDET, these students are covered by adapted education, in line with § 1-3 (NDET, 2014).

Research on gifted education in Norway is scarce (Børte et al., 2016; Smedsrud & Skogen, 2016). Earlier research on gifted students has mostly been limited to smaller research projects or master's theses, apart from Hofseth's doctoral thesis from 1968 and Smedsrud's doctoral thesis from 2019. I present a more thorough literature review on gifted education in Norway in Chapter 2.6. In the following section, I will briefly present some results that have influenced this thesis.

Arnold Hofseth wrote the first doctoral thesis on gifted education in Norway in 1968. He followed up with a book about gifted children in Norwegian schools in 1970, in which he concludes that the undifferentiated school works for the ordinary student, but not the gifted (Hofseth, 1970). Hofseth argues that the development of the educational system in Norway has primarily catered to the general population, then to those who had trouble keeping up, and that this development had not yet had time to proceed any further. Earlier research in Norway had not considered this group of students, and there is also the question of whether the vast international research is relevant to the Norwegian setting. Hofseth found a variation in maturity (or mental age) between five and seven years within the same class. Organizational differentiation for gifted students was, according to him, not in focus in compulsory education after the Second World War. Pedagogical differentiation within the classroom was also lacking time, resources, and knowledge from the teachers. A quote from a teacher illustrates this: "There is no need to feel bad about the clever

students. They can sit for a whole hour and enjoy coloring and making borders around an A, while the other students learn to read the letter" (Hofseth, 1970, p. 49). Hoseth found few signs of adapted education for gifted students in his study and argues for differentiation (Hofseth, 1970).

After Hofseth, there was not much talk about gifted students in Norway; Damsgård and Opsahl argue that research and teacher education have not done enough to prepare their pre-service teachers to teach this group (Damsgaard & Opsahl, 2016). Smedsrud and Skogen showcase three case studies as current Norwegian research on gifted students in their book. These studies all show a lack of appropriate adaptation and differentiation, individual underachievement, and stigmatizing experiences (Smedsrud & Skogen, 2016). In the study by Damsgård and Opsahl, the informants look back on their education and their experience. Boredom is a prominent result, and negative experiences with finishing assignments early or the teacher's attempt to adapt by giving them a book to read or work with or letting them draw by themselves. Some of the informants mentioned that it was best to pretend to be "normal" (Damsgaard & Opsahl, 2016).

There have been debates on why giftedness and gifted students have been excluded from the research field and educational discourse. When Hofseth wrote his thesis, there was a growing interest in a "school for all," including and assimilating children with special educational needs, but equality was based on results, not resources (Kvam, 2016). The students with good results were not those that needed resources. This may be one of the reasons the school system did not prioritize gifted education at this time. I will provide the reader with a more thorough introduction to educational history in Chapter 3.

The myth that gifted students manage on their own has been quite prevalent. There are many misconceptions regarding gifted students and students with high or extraordinary learning potential, for example, that they are brilliant overall, in all subjects or fields, that they manage without special attention, or that giftedness

simply means receiving high scores and good grades (Subotnik et al., 2011). In this thesis, I seek to investigate some of these misconceptions.

My interest in gifted education began as a bachelor's student in special needs education. My background as a special educator may influence how I view this field, and it may make me more predisposed to problematize gifted education within the Norwegian educational system. As I mentioned earlier, giftedness is not considered a special educational need in Norway, but I still write this thesis within the paradigm of special needs education. This discrepancy opens up some interesting questions. I discuss whether gifted education should be categorized within special education in Articles 2 and 3, and I will continue this discussion in Chapter 6. My personal aim in writing this thesis is to learn more about education for gifted students in Norway, convey my results, and propose some potential changes within the educational system.

Before I present the research questions and project design, I will provide the reader with a brief overview of recent white papers of interest to this thesis.

1.1.1 Recent white papers

In the official report from 2016, "More to gain. Better learning for students with high learning potential," the authors first present the new terminology – students with high learning potential. The mandate for the report uses the term *high-achieving students*. On the other hand, the report stipulates that students with high learning potential may not necessarily be high achieving. Still, they have a significant potential for learning in one or more fields (NOU 2016: 14, 2016). High learning potential covers both high and extraordinary learning potential, and the authors define the high-learning-potential group as 10–15% of the student population and the extraordinary-learning-potential group as 2–5% of the population.

The main message from the report is that, if the educational system is to achieve an education adapted for all students, three systematic realizations must be emphasized.

These three realizations are: (1) comprehensive education does not provide for students with high learning potential, making it impossible for them to realize their potential. (2) Schools are not utilizing the available space for pedagogical and organizational differentiation. (3) The educational system, both nationally and locally, requires a common knowledge ground for implementing improvement measures on short- and long-term bases (NOU 2016:14, 2016).

The authors also report the need for more research and knowledge about students with high learning potential (NOU 2016: 14, 2016) and that results from research must be conveyed to schools, teachers, and municipalities across the country to make a difference in the education of students. The research summary complementing the official report points to several knowledge gaps in the research, among others research on teachers' knowledge and attitudes toward gifted students, research on how the label "gifted" influences students' experiences, and research on implementing differentiation strategies in school (Børte et al., 2016). In 2016, the government also reported that it would establish talent centers for high-achieving students in mathematics, science, and technology (Ministry of Education and Research, 2016).

Another official report of interest is NOU nr. 8 from 2015, *A school for the future* (Fremtidens skole). In this report, Ludvigsen and authors explain that school subjects must be renewed to properly meet the future competence needs of our society. They propose four new areas of competence as a foundation for renewing the curricula: subject-specific competence, learning competence, communication and cooperation competence, and competence in exploring and creating (NOU 2015:8, 2015). In this report, they discuss the term "depth learning." Developing competence is dependent on students being able to understand their knowledge and knowing how and when they can use their knowledge. Developing competence and knowledge assumes depth learning. Students must be able to reflect on their learning, actively participate in their learning processes, and evaluate their own progress. This also assumes an education that is differentiated and adapted to the individual student because each

student will have different needs in terms of what and how they can learn. To wade into the deep end in certain themes and subjects, the students must have the ability to choose. This also means differentiation according to the abilities of each student and ensuring variety in instruction and working methods (NOU 2015: 8, 2015).

Another factor discussed in the report is progression between school levels and individual progression for each student. Teachers must assess their students' knowledge and reflect on how their instruction provides for both the individual student and the student group (NOU 2015: 8, 2015).

In 2019, the government issued a white paper concerning special education and early intervention (Meld. St. 6 (2019-2020)). The white paper emphasizes that students with high learning potential require adaptation to realize their potential properly and that education is not sufficiently facilitated for this group. In this white paper, the government considers making changes in the educational law concerning students with high learning potential and special education (Ministry of Education and Research, 2019).

In December 2019, a governmentally appointed committee delivered its report suggesting a new educational law (NOU 2019: 23, 2019). This report proposes change the terms "adapted education" and "special education" to "universal education" and "individually adapted education," respectively. The authors argue that the terms "adapted education" and "special education" are not suitable for the new Education Act. Universal education is related to universal facilitation, as used in the *Equality and Discrimination Act* (2017). According to the authors, the new term *universal education* is better suited to how adapted education is understood within the fellowship and quality era we currently reside in (see Jenssen & Lillejord, 2010). Universal education is thus an education that is the best possible, inclusive, available for anyone, and facilitated in such a way as to create a proper learning environment for all. Through an excellent universal education, the need for individually adapted education will be lessened. The official report proposes that gifted students require

adapted universal education but not individually adapted education (NOU 2019: 23, 2019).

1.2 The project design

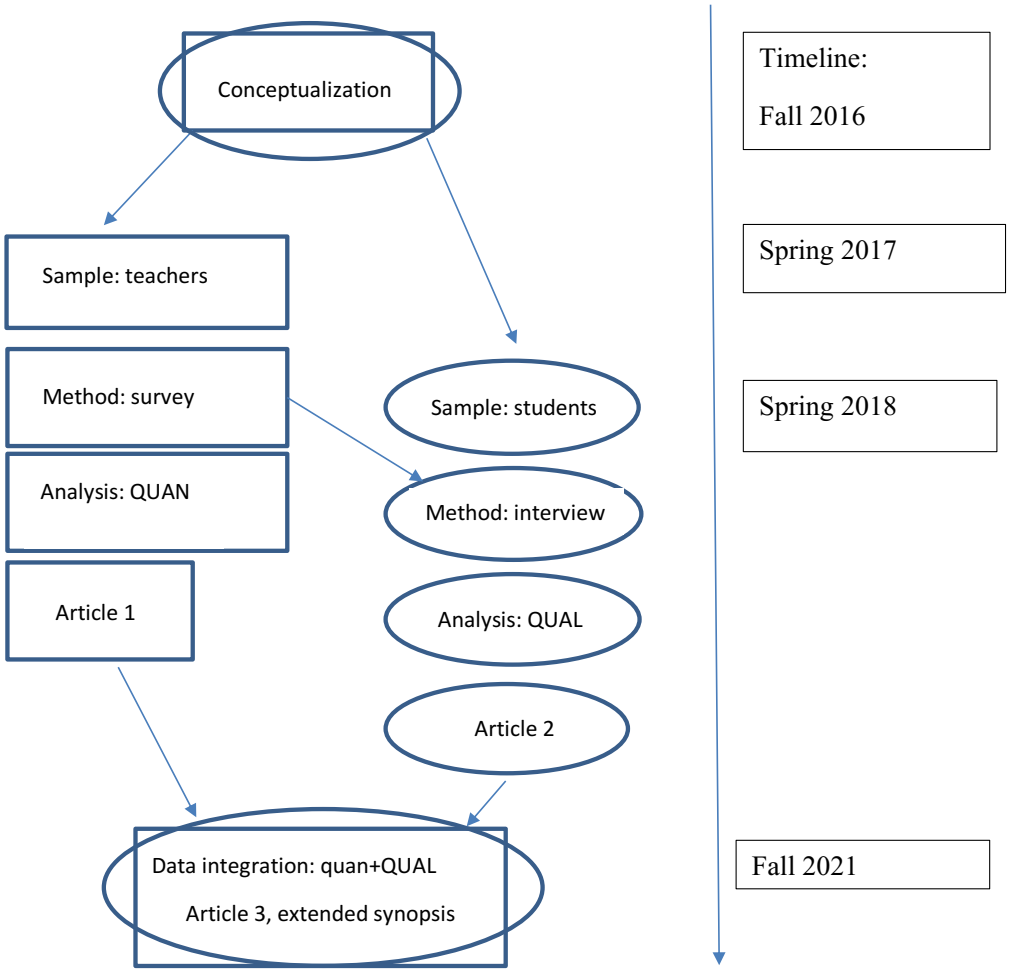
In this research project, I wanted to explore the phenomenon of gifted education in the Norwegian educational setting. The overarching research aim is to investigate gifted education in Norway through the perspectives of both teachers and students. Because research on this phenomenon in Norway is scarce, I set out to obtain an overview of or insight into the situation, rather than deep-diving into some of the more minor aspects of the phenomenon. Education requires both teachers and students, and I want to explore gifted education through both perspectives. Although these two perspectives are not sufficient to tell the entire story of gifted education in Norway, they will provide us with a larger picture than looking at either students or teachers separately.

The thesis consists of quantitative and qualitative methods — a quantitative descriptive survey of 339 teachers and educators and a qualitative interview study with 17 students. The overall project design is a convergent mixed-method design (Creswell, 2015). The studies are not parallel; I performed the quantitative survey first and then the qualitative interviews. There is a sequential element in which the results from the survey influenced the development of the interview guide. In Chapter 4, I will elaborate on the chosen method and form of analysis in this thesis.

The first article (Lenvik et al., 2022) is quantitative and based on the teacher survey. The second article (Lenvik et al., 2021) is qualitative and based on the student interviews. The third article (Lenvik et al., 2022) is mixed, with results from both the teacher survey and the student interviews focusing on adaptation and facilitation in school.

The project design, timeline, and overview of the articles are illustrated on the next pages.

Figure 1: Project design



Note: square boxes mark quantitative method, and oval rings mark qualitative. The arrows mark sequential elements.

Overarching research aim: Investigate gifted education in Norway through the perspectives of both teachers and students.				
Article	**Method**	**Results**	**Sample**	**Implications**
1	Quantitative: survey	Descriptive results. Teachers want more knowledge about gifted students and display a mostly positive view of them.	Teachers	Teacher education should include more information about gifted students and giftedness.
2	Qualitative: interview	Gifted students experience an educational system that is not suited to their needs and predispositions.	Students	Changes within comprehensive education are needed to better accommodate gifted students in Norway.
3	Mixed: survey and interview	Education is adapted to gifted students through enrichment strategies. Both teachers and students mention barriers and systematic challenges regarding differentiation.	Teachers and students	Teachers require more knowledge about effective methods of differentiation. Systematic challenges must be addressed.

1.3 Research Aim and research questions

The overarching research aim is to investigate gifted education in Norway through the perspectives of both teachers and students. The aim is two-fold; one section aims to investigate the experience of being a gifted student in Norway, focusing on the facilitation gifted students receive within adapted education. This is an explorative study. The other section aims to investigate what knowledge teachers have about this group of students and how they facilitate them. The main research question is as follows: *how do Norwegian gifted high school students experience school, and what knowledge do Norwegian teachers have about gifted students?* I use quantitative and qualitative methods to answer this research question.

The thesis also aims to provide a historical perspective on the discussion of gifted education in Norway using the notion of power described by Foucault. This perspective supplements the three articles.

The research questions in this thesis are further split between the three articles.

Article 1: Quantitative

1. Where do Norwegian teachers report they have gained knowledge about the gifted, and how do they self-evaluate their need for knowledge?
    a. How do the background variables of years of experience, experience with gifted students, and education level correlate with teachers self-evaluated need for knowledge?
2. How do Norwegian teachers evaluate the different characteristics of gifted students, and how do they describe the characteristics of gifted students?

Article 2: Qualitative

1. How are Norwegian gifted secondary school students experiencing their education?

Article 3: Mixed

1. How is the education adapted to gifted students in Norway?
2. Qualitative: How do gifted students experience adapted education?
3. Quantitative: How do teachers report they facilitate education for gifted students? How do they report the use of differentiation, the available space for differentiation, and school's prioritazion of differentiation for gifted students?
4. Mixed: How does the thematic analysis of gifted students' experience of adapted education confirm or differ from the survey results regarding how teachers facilitate their students?

The first article is quantitative and aims to provide insight into gifted education in Norway using descriptive data derived from teachers. I seek to explore how teachers self-evaluate their knowledge about gifted students, how they evaluate different characteristics of gifted students, and whether background variables correlate with their need for knowledge. I am also interested in how many teacher-identified students there are in this selection.

The second article investigates the students' perspective through qualitative semi-structured interviews and inductive thematic analysis. I interviewed 17 gifted students attending various secondary schools in the western and eastern parts of Norway.

In the third article, I combine the teacher and student perspectives, focusing on adaptation and facilitation in school. I investigate how teachers say they adapt their instruction to gifted students, how gifted students experience the adapted education, and similarities and differences between these views.

1.4 Overview of the thesis

This thesis consists of seven chapters and three articles.

Chapter 1 briefly presents the theoretical and societal framework for the thesis; I introduce the research design, research aim, and research questions in the various studies and articles included in the thesis.

Chapter 2 provides the reader with a literature review on research on teachers and gifted education, the experiences of gifted students, and gifted education in Norway and the Nordic countries.

In Chapter 3, I describe the theoretical framework more thoroughly, with an emphasis on conceptions of giftedness. I introduce Foucault and the genealogy of education, focusing on the aspect of power, as well as providing the reader with an introduction to educational history in Norway regarding both ordinary education and special education.

In Chapter 4, I present the methodological framework for this thesis. I describe the research paradigm and the quantitative, qualitative, and mixed methods used in the thesis. I also describe the analytical methods and assessments regarding validity, reliability, generalizability, and ethics in all studies.

Chapter 5 presents the reader with the main results from all three articles. Chapter 6 discusses these results in light of the literature and theoretical framework presented in Chapters 1, 2, and 3.

In Chapter 7, I sum up and provide the reader with implications based on this study and possibilities for further studies.

2. Current research

In this section, I present a literature review on research regarding gifted students. The literature review is split into three sections. This literature review provides the reader with an understanding of gifted education internationally and in Norway, as well as what new knowledge this thesis presents to the field.

2.1 Research on teachers and gifted education

In this section, I will present a summary of research on teachers and gifted education. To search for literature, I used the databases ERIC, ProQuest, and APA with the following search strategies: (gifted* OR high ability) AND teacher AND (charact* OR profile OR view OR attitude), limited to English peer-reviewed journals. The search strategy provided a total 993 articles. Further selection based on title and abstract narrowed this number down to 75 articles I read in full. The excluded articles were duplicates, did not address both teachers and giftedness or gifted students, or were in another language. This summary is based on a final selection of 38 articles. The inclusion criteria were empirical research; peer review; teachers as research subjects; giftedness or gifted students as a topic; and research questions about the characteristics, attitude, conception, and facilitation of gifted students or differentiation for them. Articles from 1994 to 2021 were included, as were both qualitative and quantitative research.

To briefly summarize the literature, it considers various characteristics of giftedness; stereotypes (especially gender and the disharmony hypothesis); teachers' knowledge about giftedness; motivation to teach gifted students; and attitudes toward gifted education, equity, and differentiation.

2.1.1 Teachers' conceptions of giftedness and the characteristics of gifted students

This section will summarize the research on teachers' conceptions of giftedness and the characteristics of gifted students found in the literature review.

The characteristic most often chosen by teachers when describing gifted students is high cognitive ability. This was characterized using the words "sees patterns and connections," "uses logic to solve problems," "solves abstract reasoning problems," "can transfer knowledge," "excellence," "potential," "rarity," "easy to learn," and "multidimensional" or an IQ definition (Kaya, 2015; Laine et al., 2016; L. Lee, 1999; Miedijensky, 2018; Miller, 2009; Neumeister et al., 2007; Persson, 1998; Russell, 2018). Regarding personality characteristics, these students are often described as having a "spark" or an x-factor (Rohrer, 1995), independent, adaptive, motivated (Persson, 1998), open to new experiences, introverted (Moon & Brighton, 2008), sensitive, mature, engaged, and non-conformist (Miedijensky, 2018). First and foremost, teachers use positive adjectives in their conceptions of and when describing gifted students (Kaya, 2015; L. Lee, 1999; Miller, 2009; Moon & Brighton, 2008; Neumeister et al., 2007; Persson, 1998).

Teachers also seem to conceptualize giftedness and gifted students as having some negative social and emotional characteristics. These characteristics may include shyness, disruptiveness, a lack of social skills (Moon & Brighton, 2008), introversion, less emotional stability, less agreeability (Baudson & Preckel, 2013), being a social misfit, and social noncompliance (Geake & Gross, 2008).

Laine et al. (2016) found that teachers in Finland describe giftedness as both fixed and malleable, depending on whether the researchers used quantitative or qualitative methods. Suppose teachers believe giftedness or high ability is malleable. This indicates a need for support and guidance in the students' development, whereas if ability is fixed, support is less needed (Laine et al., 2016).

In some of the literature, the teachers mention creativity or related traits (Laine et al., 2016; Miedijensky, 2018; Miller, 2009; Moon & Brighton, 2008; Neumeister et al., 2007; Persson, 1998), while in other studies, creative traits and creativity were reported less frequently or missing from practice (Chan, 2000; Hunsaker, 1994).

Based on the literature presented, teachers typically have a positive view of gifted students; some researchers even argue that the conceptualization of giftedness is too positive. It can paint a picture of an ideal or golden student (Persson, 1998). In a study in Mexico, the authors found that the highest subgroup within the nominated group of gifted students was the "socio-emotional gifted group," who were nominated because of their ability to understand and relate to others, as well as expressing themselves. This group of students performs well in school, receives good grades, and behaves appropriately (Hernández-Torrano et al., 2013). However, there is also evidence of a more ambivalent view, especially concerning social and emotional characteristics.

2.1.2 Teachers' attitudes toward gifted education and stereotypical beliefs

When studying teachers' attitudes toward gifted education, many have used Gagnè's "Attitude Scale towards Gifted Education" (Gagné, 2018). Research has found a generally positive attitude toward gifted education in Finland and Virginia (Laine et al., 2019; Megay-Nespoli, 2001), a negative attitude in Greece (Polyzopoulou et al., 2014), and an ambivalent attitude in Turkey (Kaya, 2019).

Research on stereotypes and biases within gifted education and nomination for gifted programs has focused on the disharmony hypothesis, gender stereotypes, and racial and cultural equity biases.

Concerning the disharmony hypothesis, which views gifted students as highly intelligent but socially maladjusted, research has been non-conclusive (Baudson & Preckel, 2013; Geake & Gross, 2008; Matheis et al., 2017; Preckel et al., 2015; Rizza & Morrison, 2003). Some research has found evidence for the prevalence of this view

among teachers (Baudson & Preckel, 2013; Geake & Gross, 2008; Matheis et al., 2017, 2020), while other research has not or found evidence of such only for boys (Preckel et al., 2015).

Gender biases may influence teachers' nomination of gifted students. Some research has found evidence that girls are less frequently nominated (Endepohls-Ulpe & Ruf, 2006; Hernández-Torrano et al., 2013; Lavrijsen & Verschueren, 2020). Other research has found that teachers consider boys to be more maladjusted (Baudson & Preckel, 2013; Matheis et al., 2017, Matheis et al., 2020). Finally, some has found no evidence of gender bias (Hernández-Torrano & Tursunbayeva, 2016; Kaya, 2019; Siegle & Powell, 2004).

Racial, cultural, and socio-economic status (SES) equity is vital in gifted education because, often, the majority culture (e.g., the white middle class) is considerably more represented than minority cultures in gifted programs (Miller, 2009; Moon & Brighton, 2008; Neumeister et al., 2007; Rohrer, 1995). Teachers perceive giftedness as being most in line with the majority culture, which does not consider students showing gifted traits in other ways, such as oral traditions, collaboration within a community, and affective characteristics (Miller, 2009; Neumeister et al., 2007). Moon and Brighton (2008) found that 27% of teachers in their study disagree with the item "the potential for academic giftedness is present in all socioeconomic groups in our society." Furthermore, 22% disagree with "the potential for academic giftedness is present in all racial/cultural/ethnic groups in our society." However, research in Kazakhstan found no evidence of racial, ethnic, or socioeconomic bias (Hernández-Torrano & Tursunbayeva, 2016).

2.1.3 Teachers' knowledge about giftedness and gifted education

In many studies in various countries, teachers report that they have little knowledge about giftedness and little experience with gifted students (Allotey et al., 2020; Heyder et al., 2018; Kaya, 2019; Matheis et al., 2017; Megay-Nespoli, 2001; Sánchez-Escobedo et al., 2020).

In a qualitative study conducted in Sweden with teachers in a professional development program on gifted students in mathematics (MHAP) and differentiated education, the teachers explicate a right to be acknowledged for their knowledge about MHAPs and their duty to both assimilate knowledge and acquire new knowledge (Mellroth, 2021). Within the duty to assimilate knowledge, there is an assumption that teachers in general (those who are not a part of the professional development program) require more knowledge about gifted students, especially MHAPs.

Megay-Nespoli (2001) studied whether a workshop intervention influenced pre-service teachers' use of differentiation and their attitude and beliefs. She found that the pre-service teachers in the intervention group had fewer stereotypical beliefs and were more interested in strategies for differentiation. Geake and Gross (2008) found that teachers who had completed an educational program in gifted education viewed gifted students' cognitive and social characteristics more positively and had fewer negative beliefs. Heyder et al. (2018) found that teachers, in general, had little correct knowledge about intellectual giftedness. The largest misconceptions were related to results in school, regarding which 90 % answered the questions "if you show very high achievement, you are intellectually gifted" and "a few intellectually gifted children or adolescents do not perform so well in school" incorrectly. Other studies have found similar results, in which teachers are influenced by good grades and results in school when nominating or characterizing gifted students (Endepohls-Ulpe & Ruf, 2006; Lavrijsen & Verschueren, 2020; Persson, 1998).

2.1.4 Differentiation, ability grouping, and acceleration

Ability grouping, acceleration, and differentiation are well-established methods for providing gifted students an education adapted to their needs and predispositions, but these methods do not necessarily translate into practice (Missett et al., 2014). Teachers may have a negative attitude toward gifted education in general (Polyzopoulou et al., 2014) or, more specifically, toward ability grouping or acceleration (Laine et al., 2019). In a longitudinal study, the authors found that

acceleration has no adverse effect on psychological well-being. A meta-study found that acceleration has a positive effect on achievement and gifted students benefit from flexible grouping within the class, across grades, and in special groups for the gifted (Bernstein et al., 2020; Steenbergen-Hu et al., 2016).

In a study in Ghana, ten teachers were asked about differentiation for gifted students, and the authors found misconceptions regarding differentiation, a "one size fits all" mentality, and reports that teacher education had not prepared the teachers for differentiation or gifted education (Allotey et al., 2020).

Time and resources are often mentioned as barriers to differentiation (Brigandi et al., 2019; Laine et al., 2019; Megay-Nespoli, 2001; Mellroth et al., 2019), as well as teachers' personality characteristics (Brigandi et al., 2019) and lack of knowledge about effective methods of differentiation (Allotey et al., 2020; Laine et al., 2019).

Teachers' motivation and self-efficacy regarding teaching gifted students may also influence how they differentiate and adapt their instruction. In a cross-country study with Germany and Australia, the authors found that teachers report less self-efficacy regarding teaching gifted students; this was especially true when they reported a more significant degree of maladjustment among gifted students (Matheis et al., 2017).

To sum up, this literature review shows that teachers describe gifted students in a mainly positive way. Still, teachers can also be influenced by misconceptions, biases, and stereotypes, for example, the disharmony hypothesis or the assumption that high ability equals high achievement. Teachers, in general, have little knowledge about giftedness, gifted students, and effective strategies for differentiation. Teachers are also ambivalent about or hostile to gifted education, especially ability grouping and acceleration. Courses and professional development programs may increase teachers' effective strategies; however, changing practice takes time. There are other barriers within the educational system that teachers have less control over (e.g., time, resources, and administration).

2.2 Qualitative research on the experiences of gifted students

Teachers are an essential element of gifted education. Still, it is also necessary to consider the experiences of those who are or recently were gifted students in various educational settings. In this section, I will not provide a systematic literature review. In this thesis, one aim is to show the experiences of Norwegian gifted students, so I have chosen to showcase different experiences across countries in this section. The literature here is not the result of one literature search but several different searches. I have chosen a purposeful sample of eleven qualitative studies with gifted students in different educational settings to showcase different experiences and similarities. The studies are chosen based on their quality, differences, and contribution. Except for one study, all are quite recent.

In a single-case study, a researcher interviewed one exceptionally gifted student. She verbally stated that everything was OK, but of the five themes the researcher developed, only one was positive (Brandišauskienė, 2019). The student considered herself different from her peers, and she had no close relationships with friends. She did not use a great deal of time in school and called herself lazy but still received good grades. In school, she is bored but remains because of the social atmosphere. She found her place in an art exhibition, saying “these are my people” (Brandišauskienė, 2019). Another case study with three high-ability AP students in Language and Composition found a similar result concerning feeling different than their peers (Schmitt & Goebel, 2015). These three students also commented that they preferred being with their intellectual peers in core subjects and teachers who showed professionalism and efficacy in teaching. The students seemed to lack differentiation and variety and had been told no by their teachers regarding individual studies. When asked how much time they were interested and engaged during school and classroom activities, they all answered a third or less than a third of the time (Schmitt & Goebel, 2015).

In a study with 36 students focusing on how experiences influenced mathematics, the researchers found that the students had a positive attitude toward mathematics and perceived themselves as competent in this regard (Erdogan & Yemenli, 2019). Those students who had negative feelings complained about boring assignments, such as repetition and writing out their calculations. The students were fond of problem-solving assignments, games, and brain teasers (Erdogan & Yemenli, 2019).

A study with Latina/o students in AP and Honors classes discussed a lack of affiliation with their class. They were often the only Latina/o, and they strove to disprove some of the stereotypes about their community (Bjorklund Jr., 2019). The students felt that they were far behind the other students, despite receiving good grades. They also felt a lack of a relationship with their teacher and that their teachers did not work to create good relationships between students across race and culture (Bjorklund Jr., 2019).

Not all gifted students manage to perform at school to their potential. In the following article, the author presents six high-ability but underachieving males' experiences in an urban high school (Hebert, 2001). The author found that inappropriate curricular and counseling experiences and family issues were central factors in the underachievement of these young males. They often proclaimed that the classes were boring and did not match their learning styles and that they wanted more hands-on experiences. One of the informants stated that he did not want to read; he just wanted to *do* something (Hebert, 2001). They sailed through primary education without doing homework, which led to poor working habits and difficulties achieving with the same ease in high school. Being placed in classes not fitted to their ability or earlier educational experiences from primary school also contributed to their underachievement. The underachievement of these students seemed to result from a combination of educational, social, familial, and personal factors (Hebert, 2001).

When considering how to differentiate and adapt instruction for gifted students, it is crucial to consider gifted students' experiences with various educational practices. In

a study on Renzulli's type III enrichment activities, the researchers found that students who chose a theme based on a long and continuous interest or as an aspect of their identity, were more pleased with the enrichment and continued their interest afterward (Brigandi et al., 2016). Those students who chose a theme based on a new interest lost their engagement during the project and viewed the enrichment activity as more strenuous and less appreciated (Brigandi et al., 2016).

What kind of teachers do gifted students prefer? Eight-grade students reported they preferred competent teachers who control their classrooms and are helpful, enthusiastic, calm, and positive (Samardzija & Peterson, 2015). The students further described preferring written directions, working in groups (if they were ability homogenous), and discussions. They also preferred visual and kinesthetic learning styles, with some variation (Samardzija & Peterson, 2015).

Sewell and Goings (2019) considered Black adults' stories about gifted education in New York. They found that the gifted programs were primarily black or diverse in primary school, and the informants looked back at this period fondly. In middle and high school, the schools and GT programs became increasingly white, and they were one of the few black students in their programs. This lack of similar students was problematic, and the informants often found strength and community within extra-curricular activities, such as choir, theater, and various clubs (Sewell & Goings, 2019).

Not all countries have pure gifted classes or even gifted programs, and in Chile, a study considered the experiences of gifted students in public schools. These students were most dissatisfied with the repetition and rigidity of the curriculum and evaluations (Gomez-Arizaga et al., 2020). These students wanted more open and problem-solving assignments, especially on evaluations. Boredom led to inactivity or a chance to create something new, such as a song. The students did not like group work, because the groups often contained members with mixed abilities (Gomez-Arizaga et al., 2020).

Norway has no official gifted programs, and the opportunities for gifted students in Norway vary according to which school they attend and where in the country they reside. Smedsrud (2018) interviewed eleven students who were members of an accelerated ability group for mathematics. Their experiences indicate a lack of differentiation and challenges, especially earlier in primary school. The informants indicate that the pace of learning is too slow and that this learning has too little depth. The students were pleased with their current accelerated course; however, earlier accelerated practices resulted in more self-study because the students fell between school levels and teachers (Smedsrud, 2018).

In the literature review regarding teachers and gifted education, there was some evidence of a gender bias, in which girls were considered less gifted, were less likely to be nominated, or were considered less maladjusted than boys. Guthrie (2020) took this to heart and specifically investigates the experiences of gifted girls. The girls expressed pressure to be perfect, obtain good grades, engage in extracurricular activities, have a wonderful social life, and be good daughters. They felt pulled between various expectations and found it challenging to be smart and a girl (Guthrie, 2020). The girls often felt alone and isolated and downplayed their intellect to fit in socially. If they displayed an interest in STEM, boys would tease them (Guthrie, 2020).

Although every experience is unique for that gifted student, it is possible to point out certain similarities in the experiences reported in this section. There is a sense of isolation from peers; racial and cultural minorities are especially isolated in gifted programs. There is a need for various educational strategies (especially those not typically part of a gifted program), such as problem-solving, enrichment based on interest, and homogenous ability groups. The students want competent teachers who build relationships with them and facilitate relationships with other students.

2.3 Research on gifted education in Norway and the Nordic countries

In the last section of this chapter, I will present literature on gifted education in Norway and the Nordic countries of Sweden, Denmark, and Finland. Because this research field is still relatively new in Norway, it is necessary to look beyond our borders. In the Nordic countries, there are similarities in educational policies and the overarching culture. These countries are considered egalitarian, rather than meritocratic, and foster gifted education through adapted education for all (Frantz & McClarty, 2016).

As in Norway, Finland's, Denmark's, and Sweden's educational acts do not mention gifted individuals. Denmark established an educational policy in 2011; in Sweden, there are no official policies for gifted education in comprehensive school, but Sweden has a policy for elite education in upper secondary school (Dodillet, 2019; Persson, 2010; Rasmussen & Lingard, 2018; Reid & Boettger, 2015). In Finland, the structure of educational differentiation from kindergarten further establishes that all children and students are educated according to their individual needs and development (Reid & Boettger, 2015; Tirri & Kuusisto, 2013). According to Persson (2010), in Sweden, the goal is to bring all students to a minimum level of knowledge needed to live well-functioning lives. All resources and special education are directed toward this end. A student reaching further than the minimum is left alone to fend for themselves (Persson, 2010). The Danish Talent Report recommended that teachers develop competence in differentiating upward and actively work to identify and develop students with exceptional learning potential (Rasmussen & Lingard, 2018).

Teachers who participated in a professional development program on differentiated education in mathematics discussed how an assignment with an easy entry and possibilities for further challenges was an effective way to differentiate in the heterogenous Swedish classroom (Mellroth et al., 2019). The teachers further discussed their role in providing guidance and issues concerning resources, time, and

students with learning disabilities (Mellroth et al., 2019). In another study based on the same program, the teachers described their rights and duties concerning gifted students, especially their duty to convey their knowledge to other teachers and continually assess their students (Mellroth, 2021).

Elementary teachers in Finland meet the needs of their gifted students through the differentiation of assignments and materials and fostering independent learning (Laine & Tirri, 2016). On the other hand, few teachers mentioned flexible grouping (7%) or adjusting the pace of learning (5%), mirroring the results concerning attitudes toward gifted education, in which the teachers were skeptical toward acceleration and ability groups (Laine et al., 2019; Laine & Tirri, 2016).

Based on the results of an action research program on differentiation in mathematics for gifted students in Denmark, the author recommend differentiation through demands, time, assistance, topics, ways of teaching, educational resources, and goals to accommodate gifted learners (Mogensen, 2011).

Pre-service teachers in Norway explain that gifted students should work on social and emotional competencies, such as relaxing, not being stressed, and managing failure (Brevik & Gunnulfsen, 2016). The pre-service teachers also mentioned working on both in-depth and broad knowledge as essential for their students. Teachers needed to have ambitions for their students and provide support for and acknowledge their talents (Brevik & Gunnulfsen, 2016). Another study with pre-service teachers showed they acknowledge they need to differentiate for high-achieving students, the importance of a safe learning environment in which it is acceptable to be high achieving, and challenges in identifying student differences. Pre-service teachers also lack confidence in utilizing differentiation strategies for high-achieving students with high learning potential (Brevik et al., 2018).

High-achieving students in Norway who participated in an intervention with ability groups in science exhibited, in general, an increase in the use of conversations and

practical work during the intervention (Knutsen, 2016). The students also considered their learning environment to be better in the ability groups; they received larger challenges and were more active in the class. However, some of the students were less pleased with the intervention. The researcher believed this to be the result of a teacher's particular teaching style, which the students did not prefer (Knutsen, 2016). Other research in Norway has found that high-achieving students thrive less, receive less support, do not experience the learning environment as not optimal for them, receive fewer educational challenges, and report lower satisfaction than peers (Cosmovici et al., 2009; Damsgaard & Opsahl, 2016; Smedsrud et al., 2018; Wendelborg & Caspersen, 2016).

Previous research on gifted education in Norway indicates a learning environment that is not optimized for gifted students. What kind of students do Norwegian teachers see as gifted? How are they characterized? Are they characterized similarly by teachers in Norway as compared to teachers in other countries? How is the education adapted and differentiated for gifted students in Norway? These questions have not been adequately answered in previous research. In this thesis, I seek to provide a preliminary answer to these questions. However, my studies are still not sufficient to fully answer these questions. My research points to further studies that are important in understanding gifted education better and implementing and developing educational programs and systems for gifted students in Norway.

3. Theoretical Framework

In this chapter, I present various theoretical conceptions of giftedness, both those I have used in my studies and articles and other important conceptions, and I then provide a different perspective on giftedness and gifted education. I provide a brief overview of Foucault and the notion of power in the genealogy of education. This power aspect is important in understanding educational history and the evolution of special needs education in Norway. I use educational history and Foucault to provide the reader with a long-term historical perspective on gifted education in Norway.

3.1 Conceptions of Giftedness

Giftedness and gifted education are not easily defined and agreed upon as concepts. Conceptions vary, from the regular cognitive concepts and definitions that rely on IQ and scores surpassing a certain level to multivariate definitions considering other personal traits and attributes, such as motivation and creativity (Sternberg & Ambrose, 2021). One issue within gifted education is the various definitions and conceptions of giftedness. Although some scholars see this multitude as a perfect invitation to interdisciplinary research (see Ambrose, 2021), other scholars argue that we must rethink giftedness and gifted education as social constructs, as well as for gifted education without gifted students (Borland, 2021).

In Norway, we define giftedness through high learning potential and extraordinary learning potential (NOU 2016:14, 2016). In the quantitative survey (Study 1) included in this thesis, I used the following definition to explain the term "students with extraordinary learning potential" to the teachers: *Students with extraordinary learning potential are students with a strong need and potential in academic subjects like mathematics, reading/writing/language, science, technology, social science, or creative/esthetic subjects who can transform their potential into talent only if their needs are met in a rich and responsive learning environment* (Idsøe, 2014, p. 16, my translation). This definition pertains to the variety of fields in which students can

have extraordinary potential. It also considers the need for help from surrounding environmental factors, such as teachers, schools, and peers, to develop potential into a talent. However, this definition does not suggest how teachers, schools, or scholars should identify students with extraordinary learning potential.

In the second qualitative study, I interviewed 17 students with extraordinary learning potential. In this study, I define extraordinary learning potential as scoring in the 95th percentile or above on one subscale or more in the Weschler Intelligence Scale for Children (WISC-IV). Therefore, in this thesis, there are two definitions of giftedness. The first definition considers potential in various subjects and fields, but without a definite criterion, and the second definition has a definite cut-off at the 95th percentile. The use of two definitions could be an issue within the thesis because it could be unclear whether the two studies investigate the same phenomenon. However, because there is no clear-cut definition of giftedness and which students should receive gifted education in the international research field, this ambivalence could also be considered a strength. I chose these definitions because of the research strategies within each study. Using a definition with an IQ criterion in the survey of the teachers would not have been feasible, because the teachers do not know the IQ scores of their students. Using a vague potential definition in the interview study would problematize the inclusion criteria. How does one measure potential objectively unless one measures cognitive capacity (IQ) or ability through grade scores in secondary school? I could have chosen grades instead of an IQ measurement; however, such an approach would have had its own issues, such as a lack of underachieving gifted students. In the following subsections, I will discuss various conceptions of giftedness related to the definitions used in this thesis, including conceptions that differ from the chosen definitions.

3.1.1 Harmony and disharmony

As the literature review showed, the disharmony hypothesis is prevalent among teachers. In this section, I will describe both the harmony and disharmony conceptions in more depth.

In the harmony conception, gifted individuals have a high intellectual capacity. The threshold for *high* intellectual capacity is still up for debate. In Terman's study, he set the threshold at 140 on the Standford-Binet scale (Terman, 1926). Others mention only the top 2–5% in terms of cognitive abilities, which, depending on what measurement is used, might mean an IQ of 125 and above, or the top 10% (Gagné, 1995). Nevertheless, giftedness is considered an innate ability that must be revealed or recognized through cognitive assessment, and gifted individuals remain gifted throughout their lives, regardless of what they achieve in later years (Subotnik et al., 2011). Gifted individuals are not only superior in terms of cognitive abilities but also surpass their peers in volitional, social, and emotional abilities. Various studies support this conception, e.g., Terman (1926); Francis, Hawes, and Abbott (2015); and Cross, Adams, Dixon, and Holland (2004).

There is a concern for gifted children's unique emotional fragility in the disharmony conception because they have innate sensitivities that are different from their peers (Subotnik et al., 2011). These sensibilities indicate a need for special programming, understanding, and socio-emotional support from schools and the environment. Shaywitz et al.'s (2001) study is a highly referenced article stating that highly gifted individuals (IQ 140–154) show behavioral issues on the same level as individuals classified as learning disabled. There was a significant difference between the highly gifted and the low-gifted groups (IQ 124–139), where the highly gifted showed a higher degree of behavioral issues. However, Shaywitz and colleagues only studied boys, and their results may not be transferrable between genders. Other studies have investigated asynchrony and the link between socio-emotional discrepancies and underachievement as a predisposition for behavioral difficulties (Blaas, 2014; Guenole et al., 2013, Guenole et al., 2015). Guenole et al. (2015) found that asynchronously gifted children have lower frequencies of social participation and weak self-concepts. Blaas (2014) argues that internal factors such as asynchrony, being twice-exceptional (gifted with a learning disability/physical disability/psychological disability), a weak academic self-concept, and perfectionism

are related to social-emotional difficulties and underachievement. Lie (2014) also argues that twice-exceptional students are in danger of underachievement and misdiagnosis.

3.1.2 Gagné's Differentiated Model of Giftedness and Talent

In Article 2, I use Gagné's Differentiated Model of Giftedness and Talent (Gagné, 1995; 2004) as a framework for discussing the results of the inductive thematic analysis. Gagné distinguishes between gifts and talents. Gifts are untrained and spontaneously expressed natural abilities in at least one ability domain, such as intellectual, creative, social, perceptual, muscular, and motor control, placing the student among the top 10% of their age-matched peers (Gagné, 2010). Talent is a mastery of systematically developed knowledge and abilities in at least one field of human activity placing the student within the top 10% of relatable peers (Gagné, 2004).

Three catalysts influence the developmental process from gifts to talents. Environmental catalysts are the *milieu*, such as school or its cultural aspect; *special individuals*, such as parents, peers, and teachers; and *provisions*, such as enrichment programs, pedagogy, and acceleration. Intrapersonal catalysts are physical and mental traits of the person, such as goal management, awareness, motivation, and volition. Chance is the final catalyst, and chance affects both the environmental and intrapersonal catalysts, as well as gifts and developmental process (Gagné, 2010).

The definition crafted by Idsøe (2014) that I used in Study 1 is, among others, based on Gagné's DMGT. In Idsøe's definition, a potential can only develop into a talent if the needs and predisposition of the student are met in a stimulating learning environment. Gagné reports this with regard to the developmental process. The environmental catalysts include influential individuals, such as teachers, and provisions established by the school, such as enrichment, acceleration, differentiation, and grouping with other ability-peers (Gagné, 2004). The environment can facilitate or hinder the proper development of a gift into a talent. Suppose the teacher is not

aware of the student's potential in mathematics and is therefore not enriching the curriculum or accelerating the student. In that case, the initial gift in mathematics may not develop properly and become a talent. Of course, other vital individuals, such as parents and peers, may mitigate the lack of facilitation by the teacher, or the student may have another teacher later who recognizes the potential within. Even so, it is important to acknowledge how much time each child spends at school during their years in comprehensive school; teachers are therefore essential.

In this thesis, I focus on gifts within the intellectual domain. Still, it is relevant to compare the developmental process between the intellectual domain and other domains, such as sport or music. If a child is considered gifted within music, for example, in piano, this child is likely placed in a talent development program at their music school. They receive individual tutoring from a piano teacher, practice and hone their skills, and enter musical competitions, and with the help of the environment, individuals, and provisions, they develop their initial potential for music into a talent for piano. A child with a motoric gift, for example, in skiing, will likely receive similar development to a child with a musical gift. Coaches that see this potential and hone it provide the child with opportunities for talent development at special programs, upper secondary schools that focus on sports, competition on the local and national levels, and various exercises to increase their skills. It is not difficult to picture these two children and their development from gift to talent. However, imagining the same for a child with a gift in the intellectual domain seems more difficult.

In Article 2, I also include the Multifactor Model of Giftedness and the three-ring conception of giftedness (Mönks & Katzko, 2005; Renzulli, 2012). The three-ring conception of giftedness displays three interactive personal traits, above-average ability, task commitment, and creativity. The interaction between these three traits creates the conditions for a creative, productive process (Renzulli, 2012). In this conception, giftedness is not a fixed state of being but a developmental set of behaviors that can be applied to problem-solving. Above average ability can refer to

general ability; verbal, numerical, spatial, and memory abilities; and specific abilities in, e.g., ballet, music, or leadership. There is no definite criterion for *above average* in the three-ring conception. Renzulli (2012, p. 153) argues that this lack of a definite criterion is that, beyond a certain level of cognitive ability, achievement level is less dependent on performance and skills assessment and more dependent on other personal and dispositional factors. Task commitment traits, such as perseverance, determination, willpower, and energy, are nonintellectual. Renzulli calls it a refined form of motivation. Another way to describe it is conscientiousness. The last ring is creativity, such as curiosity, ingenuity, originality, and challenging conventions and traditions (Renzulli, 2012).

The Multifactor Model of Giftedness (MMG) (Mönks & Katzko, 2005) builds on the three-ring conception of giftedness but further expands it with the environmental factors of school, home, and peers. These three environmental factors surround the individual and their traits. According to the MMG, these three factors must support the individual in developing their potential (Mönks & Katzko, 2005). If, for example, school is unsupportive, it will be difficult for peers and home to compensate for the lack of support from school. Constant unchallenging and boring assignments in school, with no support or adaptation, may destroy the initial motivation of the student.

3.1.3 Vague conceptions or no conception

Sak (2021) argues that all conceptions of giftedness are vague and that giftedness, in itself, is not a biological fact but a mentifact, a mental construction rooted in society that changes across generations (Sak, 2021, p. 372). Every conception of giftedness includes a threshold for giftedness, but these thresholds may vary, as we have seen previously. Additionally, some conceptions have no concrete threshold but use the even more vague term “high ability,” which, of course, suggests the following question: when do you go from ordinary to high ability? Sak proposes the “Fuzzy Conception of Giftedness,” which defines giftedness as “*a set of developing dispositions interacting efficiently with stimulus conditions”* (Sak, 2021, p. 376).

Developing dispositions are intellective (e.g., reasoning and working memory) or non-intellective (e.g., self-concept and motivation) and are internal characteristics of each person. The number of dispositions is unknown or infinite. Stimulus conditions are the physical, psychological, social, or economic aspects of the environment that can stimulate a person. As with developing dispositions, stimulus conditions are infinite, as these will be different for each person (Sak, 2021).

Borland (2021) agrees with Sak about the vagueness of different conceptions of giftedness. Borland further argues that, if the research community in gifted education has not reached a consensus regarding the definition of giftedness, as it has not, it will likely never reach a perfect consensus. According to Borland (2021), giftedness is a social construct, similar to giftedness as a mentifact. Giftedness, as a social construct, varies across societies and cultures, and these different conceptions have different thresholds and connotations. A gifted person in one country or even a school district may not be considered gifted elsewhere, because they operate with a different threshold or conception of giftedness. Borland further argues that, instead of viewing giftedness existentially, in which the question is whether or not the child *is* gifted, we should instead see it as an educational undertaking. Gifted education should occur without gifted students (Borland, 2021). One issue with gifted education is racial, cultural, and socioeconomic equity, as displayed in the literature review. The term "gifted" may contain misconceptions and be best tailored to the majority culture. If gifted education occurs without gifted students, it may be easier to mitigate the issues concerning equity.

The differentiation paradigm establishes that education is adapted to gifted students on an individual basis or that education, in general, should be adapted to each student on an individual basis. Advanced academics is another notion within the differentiation paradigm; it provides students who are unchallenged by the regular curriculum with more advanced, faster, deeper, and more rigorous instruction, regardless of their identification as gifted or not (Borland, 2021). If a student requires

something different, something more advanced, they should receive an education that is suited to them.

3.1.4 Summary of conceptions of giftedness

As seen in these subchapters, there are several definitions and conceptions regarding giftedness, and these different conceptions will influence gifted education in various ways. It is essential to discover what conception teachers and schools utilize for acceptance into gifted programs or even to acknowledge gifted students' existence. Is the conception used in Norway well established, and is there only *one* conception? I present the conception used by the official report in Chapter 1.1.1, and I will discuss all the presented conceptions in light of the results from my study in Chapter 6.

Education contains an aspect of power and to provide the reader with a proper lens for viewing power, I will now introduce Foucault.

3.2 Archeology

In Michel Foucault's archeology, he discusses the importance of studying science through the lens of the time of origin. He proclaims that any given time, in each domain, sets constraints on how and what people think (Gutting, 2005). When seen in retrospect, these rules and constraints set a clear framework for how scientists thought about the world, and when we analyze their science, we must be aware of the framework they operated in. We are also operating through a framework of rules and constraints, but we cannot identify them, because they are implicit and embedded in our thinking. The future archeologist of knowledge will identify the rules that govern the thinking of our time.

The archeologist of knowledge is not interested in a specific text as a document and does not attempt to interpret the deeper meaning of this text but, instead, searches for clues to the system's general structure (Gutting, 2005).

> *I tried to explore scientific discourse not from the point of view of the individuals who are speaking, nor from the point of view of the formal structures of what they are saying, but from the point of view of the rules that come into play in the very existence of such discourse: what conditions did Linnaeus (or Petty, or Arnauld) have to fulfill, not to make his discourse coherent and true in general, but to give it, at the time when it was written and accepted, value and practical application as scientific discourse.*
>
> (Foucault, 1970b, p. xiv from Ball 2013, p. 5)

Foucault's later term "genealogy," which he derives from Nietzsche, builds on the archeological method, but he goes beyond linguistic expressions and includes power as an important aspect. He saw archeology as a suitable method for describing the underlying conceptual systems, but to explain these systems, he needed something more. One of the crucial changes from archeology to genealogy was the claim of a direct and intimate link between knowledge and power. Foucault explained this through changes in thought that occur through the social forces controlling the behavior of individuals (Gutting, 2005).

Genealogy is a way of historicizing the subject. The subject itself is not interesting *per se*, but the systems of ideas and historical practices surrounding and controlling the subject are the focus of interest (Popkewitz & Brennan, 1998). Foucault himself explains the situation like this:

> *One has to dispense with the constituent subject, to get rid of the subject itself… to arrive at an analysis which can account for the constitution of the subject within a historical framework…. And this is what I would call genealogy… a form of history which can account for the constitution of knowledge, discourses, domains of objects etc., without having to make reference to a subject which is either transcendental in relation to the field of events or runs its empty sameness throughout the course of history.*
>
> (Foucault, 1980, p. 117 from Popkewitz & Brennan, 1998, p. 11)

Foucault was not interested in explaining power itself, and the question of "what is power" was of no interest to him (Ball, 2013). Foucault was interested in the

"relations of power," and he proclaimed that "there cannot be relations of power unless the subjects are free" (Foucault, 1981, from Ball, 2013 p. 32). Power is consistently enforced on something, and this something is usually the human body. When doing genealogy, you expose a body imprinted by history, making history visceral and displacing both the self and the subject (Ball, 2013). Power, in Foucault's view, is focused in the actors that wield it. He illustrates this through the example of the sovereign king with the power to decide life and death for his subjects (Popkewitz & Brennan, 1998). In research, this power is interesting when viewing various groups. Who are favored, and who are not? People "own" this power, and this ownership can change from group to group to challenge inequities (Popkewitz & Brennan, 1998).

3.3 Educational history in Norway

"We cannot understand where we are and where we are heading without knowing where we have been" (Ravitch, 2000, from Volckmar, 2016, p. 12).

We do not know much about education and upbringing in Norway before Christianity (Høigård & Ruge, 1963), but it is possible to draw certain conclusions based on archeological material. Children were brought up within the family, and the young learned from the elders by cooperating in various types of work. An old poem (*eddakvad*) entitled Rigstula displays the different upbringings of a child of a slave (*trell*), a child of a farmer, and a child of the Earl (jarl). Only the son of the earl has the opportunity to learn writing with runes (Høigård & Ruge, 1963).

When Christianity became widespread in the tenth and eleventh centuries, it created an entirely new foundation for upbringing and education. For a Christian parent, it was not enough for their children to learn to work. They also needed to learn about the foundations of Christianity to save their souls from damnation (Høigård & Ruge, 1963). Because the Christian faith was based on the written bible, this had huge pedagogical implications, and there was a need to educate young boys to become

priests. However, it was still the parents' responsibility to raise their children within Christian beliefs, and only clergymen could read the Bible.

In the twelfth and thirteenth century, education was concentrated on educating new priests at the three cathedral schools in Norway, in Nidaros (Trondheim), Bergen, and Oslo (more cathedral schools came later). A letter from the Pope in 1215 ordered all clergymen within a cathedral chapter to provide clerical education for the new priests (Høigård & Ruge, 1963).

Luther blamed the Catholic church for not providing children and adults with a proper understanding of elementary Christianity, and one issue was that all biblical text was written in Latin. With the Lutheran reform in the sixteenth century, the Bible was translated into each country's mother tongue. In Norway's case, this was Danish (Høigård & Ruge, 1963). Luther also proclaimed that the caller (*klokkeren*) in each congregation was responsible for educating children about Christianity and that this education was mandatory.

Education for all in Norway began with the proclamation of Christian Confirmation in 1736 and the law on schools in Denmark and Norway proclaimed by the Danish King Christian VI in 1739; it was decided that all children in Norway should receive education from 7 years of age in Christian knowledge and learn to read (Høigård & Ruge, 1963; Kvam, 2016). Two laws were established in 1739, the law for schools in the countryside and the law for Latin schools in Denmark and Norway. Even though these two laws arrived at the same time, they were not a part of a larger system regarding schools in Norway (Thuen, 2017).

The Christianity school came about because of pietism and power brokers' need to influence children's Christian upbringing. The common folk were considered lazy and stupid, and it was the obligation of the state to ensure economic growth and prosperity and a richer spiritual life for all people (Volckmar, 2016). The Christianity school was a means to an end intended to usher children through the obligatory rite of

Christian Confirmation. When the youth had passed the final examination, they were welcomed into the communion service (Kvam, 2016). One needed to be a part of the communion to achieve certain rights, such as employment, buying property, marriage, and being a witness in the court. However, only Latin schools gave access to further education (Volckmar, 2016).

This type of school was later referred to as a "standsskole," a school that educated students but had no considerations of social mobility (Hommerstad, 2018). The children of officials went to the Latin school, which prepared them for university, the children of citizens went to a school that prepared them for trade and commerce, and the commoner children went to the commoner school, which only provided education intended to help pass the Christian Confirmation (Thuen, 2017). After 1739, the Cathedral schools tightened their student admissions. Children from lesser economic backgrounds were not admitted unless they were gifted, and the Latin schools became more and more exclusive. In fact, they became elite schools for the upper class (Thuen, 2017).

Competition and ambition were appreciated in the commoner school, and the clever students received rewards in the form of positions of trust, monetary rewards, or books (Høigård & Ruge, 1963).

The laws from 1739 and, later, 1827 were only regarding schools for all children in the countryside. There was no law ensuring a "commoner school" or public school for the cities. The Christianity school was quite different from village to village in terms of how many children attended. It also differed depending on whether you were from the worker class, the middle class, or the upper class. Each class had its school system, and only the upper and middle class could continue their educations after primary school. In the countryside, only 5% of children who were obligated to attend school skipped school, while in the cities, the number was 18%; in 1848, the law for public schools in the cities was established (Høigård & Ruge, 1963).

In 1850, the teachers used the clever students as a help with instruction. These students had small groups with other students, who they helped and moved from post to post during the instruction. This was called the Bell-Lancaster method, but it did not have a long life in education in Norway (Thuen, 2017).

After 1814, the government wanted to build the new nation, and education was seen as part of the larger socio-economic scheme. It was said that schools should attend to and refine each genius, talent, and precondition that existed between the Norwegian coast and mountains (Thuen, 2017).

In 1860, the government declared a new educational law. School was no longer merely an education in Christianity (Volckmar, 2016). Now, schools promoted a national consciousness through history, language and culture. This school was a "cultural commoner" school; the children should be made harmonious and functional but also critical and independent (Kvam, 2016). This new law opened the doors to a larger educational change and a new educational system in Norway (Thuen, 2017).

In 1869, Hartvig Nissen proposed a law for higher education, which established the first three years in commoner school as required for all, as well as a 6-year middle school as a preparation for upper secondary school (Volckmar, 2016). The middle school replaced the Latin schools, and upper secondary schools developed a science line, as well as the Latin line.

Ideas about the new public school serving democracy first saw light in 1889. This came about after parliamentarism was established in 1884 (Volckmar, 2016). The movement for a new public school had a "child friendly unitary school" (*den barnevennlige enhetsskolen*) as its goal. There was a political project to change the educational system and provide proper education to all children in Norway, not only those from the middle and upper classes (Kvam, 2016). Norway was the first country to establish a 5-year comprehensive public school, even though some private schools still existed (Thuen, 2017). Norway separated from the union with Denmark and

ratified its own constitution in 1814. Even though Norway was still in a union with Sweden, it now had its own government. The Norwegian state took responsibility for its schools and education for all. In 1911, public school was expanded to seven years, as well as a 3-year middle school. There was some discussion as to whether the comprehensive school should be the same for all or differentiated. Some argued that the schools should be for all but differentiated according to the needs and predispositions of each student (Volckmar, 2016).

In 1907, the government established a different test for *examen artium* (needed examination before University) for students from the countryside and, in 1914, a four-year upper secondary school for children from the countryside. This "country high school" (*landsgymnaset*) was mostly an offer to the most gifted and diligent students (Thuen, 2017).

In 1935, Norway passed a new law on upper secondary school, in which middle school became "realskolen" (realschule or science school) and a five-year upper secondary school was established in the cities. Realskolen was meant to be concluding, and it was differentiated in terms of courses, lines, and years (Thuen, 2017).

Using schools as a means to build society was a political project not just in Norway but also internationally. What set Norway apart from many other countries was that the public school was unitary, the same for all, and free. One of the goals was that the social togetherness in the school for children from different socioeconomic groups would create mutual trust and common understanding (Volckmar, 2016).

After the Second World War, the major societal project was to provide jobs for as many as possible, enhance economic growth, improve the standard of living, and fairly distribute societal benefits (Kvam, 2016). Building a welfare state and universalism was important in ensuring similar opportunities and rights for all people (Thuen, 2017). Even so, those who competed further years of education beyond the

compulsory were mostly in the upper societal layer. Specifically, 72% of children of academics completed further education, while only 11% of farmers' children and 6% of fishermen's children did so. The consideration of the community was important but should not overshadow the individual student. Individualized education was an essential principle, in which the school ensures the free and harmonious development of all parts of a student's personality, as well as the distinctive and special aspects of each student (Thuen, 2017).

In 1949 and 1953, the Pedagogical Research Institute at the University of Oslo (*PFI*) developed different maturity tests. These tests were used to assess various factors related to intelligence, individual differentiation, and creating a more effective educational system (Thuen, 2017). Hofseth used this test in his thesis (Hofseth, 1970).

The government passed a law concerning various structures in school (*lov om forsøk I skolen)* in 1954. This law allowed attempts at a differentiated secondary school split into different lines in 1955. The student could choose between theoretical and practical lines (Volckmar, 2016).

In 1969, a new educational law introduced nine years of obligatory primary schools as a national system. Social equalization was one of school's primary goals in this period. The overarching aim was to create a society of people who could exist on the same terms and would be fit for essential processes, such as democracy (Kvam, 2016). Here, we also see the vital aspect of normalization. Normalization was needed for equality, but not everyone was deemed normal and in need of this equality. Some were categorized as outside the norm (e.g., in need of special educational services). I will delve further into this in the next chapter.

Earlier, students had been differentiated into different secondary schools, but now, the various lines and schools were all combined into a single secondary school, and a historical end to organizational differentiation occurred with the

"normalplanutvalget" in 1967. Organizational differentiation, with its different lines, had not achieved the results that the government wanted, because most students chose the theoretical line (Volckmar, 2016). However, the students still had to choose different courses within the subjects, and only the highest courses led to further education. Even so, it was possible for students who chose lower courses to stay on for an extra tenth year and thus take higher courses so as to be ready for upper secondary school.

Equality was an important term. However, there were different ways of interpreting the meaning of the term. In 1970, the sociologist (and later minister of the church, education, and research) Gudmund Hernes wrote research articles about school and equality. He stated that schools did not make children equal; instead, they reproduced social differences. Children from higher social backgrounds performed better and received more help and support from teachers and parents (Kvam, 2016). Hernes did not want to focus on the equal distribution of resources; he wanted to focus on an equal distribution of results. To achieve this equality, the government needed to invest the resources differently. An equal distribution of results did not mean that everyone should receive the same end grade but that every student should achieve the minimum standard. The equality principle meant that every student was legally equal.

Meritocracy was seen as problematic. In 1968, The parliamentary representative for the Christian party Jakob Aano said, "The cultivation of intelligence and knowledge is a huge danger for the future of our society, and we are headed towards a mercilessly intelligence overclass system, a meritocracy" (Thuen, 2017, p. 141, my translation). However, an effective and rational differentiation of students based on their preconditions meant that teachers needed proper knowledge about their students. Differentiation and testing were seen as two sides of the same coin, and it was considered fair to discuss differences in abilities if one was objective and rational (Thuen, 2017).

In 1974, the government published a new curriculum, M74, and this plan was intended to create a synthesis between the individual and social aspects. The community in the school and the individual student were interdependent on one another. In this plan, organizational differentiation, with different courses within the subjects, was canceled, the teachers were supposed to utilize pedagogical differentiation instead (Volckmar, 2016). M74 used the term “adapted education” in an individual context, in which the goal was that the individual was neither held back in their development nor demanded to accomplish more than they could achieve. However, “adapted education” was mostly seen as a term targeting students with disabilities (Thuen, 2017).

New public management found its way into educational settings in the 1980s. Decentralization, quality, freedom of choice, competition, and results were important aspects of this new management. Education was important for production, as well as for competition in an increasingly globalized market. In 1987, a new curriculum (M87) was established as an inspiration for local municipalities, schools, and teachers in developing their own curricula and teaching plans (Volckmar, 2016).

In 1986 and 1987, Hernes wrote newspaper articles that criticized higher education and the educational system in Norway. He said that higher education did not have proper ambitions and that the educational system did not provide students with proper knowledge and working habits. He wanted more training, more standardization, greater professional concentration in subjects, and higher standards for students. In 1990, he was asked to become minister of the church, education and research; left his position as a guest professor at Harvard University; and began his work on reforming the educational system in Norway (Volckmar, 2016).

The first component of this reform was R94, which established that all students have an individual right to three years of upper secondary school. The goal of this reform was twofold. First, it was intended to elevate the status of practical education, and secondly, it was intended to meet society’s need for qualified workers (Thuen, 2017;

Volckmar, 2016). The second reform was R97, which changed the school age from seven to six years and expanded compulsory school from nine to ten years. The national curriculum L97 was established as a regulation of the educational law, which meant that teachers and schools were bound to follow it. L97 contained both a general component and a component for specific subjects. The general section was ideological and described the schools' double assignment, both helping each individual achieve proper self-realization and fostering humanity in a changing society (Volckmar, 2016).

In 1998, Norway established a new Education Act, which is still the current law of education in Norway. This act confirms that all students have the right to an education according to their needs and predispositions, as well as the right to special education for those who need it (*The Education Act,* 1998).

The first PISA examination arrived in 2001, and Norway scored just above average among the OECD countries, which came as a huge shock to Norwegian society. It was a general thought that Norway should score better than average, and this shock led to the development of the new curriculum and teaching plan *Kunnskapsløftet* 06 (The Promise of Knowledge) (Volckmar, 2016). The general component of L97 was retained, but the subject curriculum was changed to better fit with the goal management principle. New national goals, in the form of competence goals, were developed in each subject, in addition to five basic competence skills. These basic skills were a part of all subjects and all levels. This change was better suited to national tests and a national quality assessment system. The term "unitary school" (*enhetsskole*) disappeared from the official language concerning school and education because it was believed that this type of school did not differentiate according to the diversity within the student population (Volckmar, 2016). Instead, the government used the term *knowledge school.* According to Thuen (2017), the new curriculum had ambitions to create a better school via better content, quality assessment, learning strategies, and individually adapted education.

In 2015, Ludvigsen and authors delivered an official report concerning education for the future, discussing competence areas and depth learning, among other issues (NOU 2015:8, 2015). This report paved the way for the new curriculum, which was published in 2020 (NDET, n.d.a).

3.4 Adapted education and special education in Norway

In the Norwegian educational system today, the overall aim is to provide an education that is inclusive, equitable, and adapted to the needs and predispositions of all students (*The Education Act*, §§ 1-1, 1-3). Adapted education is considered a principle and not an individual right for each student; it should be achieved through variation in instruction and materials (NDET, 2021). Inclusion is not just physical but means that every student has a natural place in the community, feels safe, and can participate in developing their education (Ministry of Education and Research, 2019). In Norway inclusive education is understood as individual integrity, and the inclusive process has its own value (Vik & Hausstätter, 2014). In L97 the term “integration” was switched to “inclusion”, which symbolized the ambition that education should be better adapted to all students who, for various reasons, experience difficulties (Haug, 2022). In Norway inclusive education is understood as individual integrity, and the inclusive process has its own value (Vik & Hausstätter, 2014). In L97 the term “integration” was switched to “inclusion”, which symbolized the ambition that education should be better adapted to all students who, for various reasons, experience difficulties (Haug, 2022)

Norway has ratified the Salamanca Statement, which emphasizes that educational systems must pay heed to the diversity in their student population and education must occur in inclusive environments, with room for all predispositions. Education for all must effectively be for all, especially those who are most vulnerable and in need (UNESCO, 1994). The Salamanca Statement further emphasize that every child has unique characteristics, interests, abilities, and learning needs and that education

systems should be designed so as to consider the diversity of these characteristics and needs. The guiding principle of the framework surrounding the statement is that schools should accommodate all children, including disabled and gifted children, various socioeconomic groups, minorities, and other disadvantaged or marginalized groups (UNESCO, 1994).

An equitable education requires that all students have appropriate challenges and are not excluded based on their gender; age; talents; interest; or social, geographical, cultural, or language background (Nordahl et al., 2018). While equality often relates to equal distribution or sameness, equity refers to fairness and justice. Equal treatment does not necessarily provide an equitable result, and equity in education requires differentiation (Merriam-Webster n.d.; Nordahl et al., 2018).

As discussed previously, Hernes described three forms of equality, formal equality, resource equality, and result equality. Result equality was the best because it meant that society needed to compensate for the differences in abilities and predispositions among students. This also meant establishing minimum goals that all students could reach (Eckhoff, 2001).

Because adapted education is regulated in its own paragraph in the Education Act, this has led to the misunderstanding that adapted education is an individual right for each student. It is a high ambition but not something each student can require (Haug, 2020a). Adapted education is a term first and foremost used in a political setting, with differing meanings, which of course brings difficulties both for education and research on education (Simonsen, 2022).

There are two understandings of adapted education, the narrow one, with individual adaptation for each student, and the broad one, with high-quality general education. Jenssen and Lillejord (2010) argue that there are four different eras of adapted education, an integration era (1975–1990), an inclusion era (1990–1996), an individualization era (1997–2005), and a fellowship and quality era (2005–) (Jenssen

& Lillejord, 2010). We are currently in the fellowship and quality era, in which the individual aspect of adapted education has been diminished. In white paper nr 31 (2007–2008), the government points to a previous understanding of adapted education, one leading to an individualistic focus. In this new understanding, there is a need to balance individualism with the needs of fellowship in each class (Jenssen & Lillejord, 2010). In the new curriculum from 2020, depth learning and progression are seen as important aspects of adapted education and require that the teacher knows their students well (Haug, 2020a). Even though the broad understanding of adapted education is the most commonly utilized now, some students require narrower adaptation. Gifted students may be considered in need of a narrower approach because the broad approach does not seem to fit their needs (Haug, 2020a; Olsen, 2020). Special needs education, adapted education, and ordinary education must all be seen as aspects of the same general education, not as isolated from one another. A narrow form of adapted education could be utilizing special education.

Special education is an individual right for students who cannot or will not obtain a satisfactory yield from ordinary education (*The Education Act,* § 5-1, 1998). Adapted education covers both ordinary education and special education. A student can receive adapted education in ordinary education or in the form of special education.

Because adapted education within ordinary education is considered a principle and not an individual right, it may be difficult to conceive of how much adaptation each student can receive. The NDET explains that adapted education through variations in instruction and materials will cover the needs of most students. The NDET further explains that it is the teacher's responsibility to develop instructions that allow all students to progress, be motivated, and experience self-efficacy in the various subjects. Through adapted education, space for depth learning will also be made available (NDET, 2021). Teachers must also adapt education for students with high learning potential, and the NDET clarifies that this means both students who have high achievement levels and those who can reach high achievement levels (NDET, 2021).

Special needs education (as in the paradigm), or special education, has the overarching goal of preventing and helping to eliminate difficulties and barriers for children and adults in the educational system who have special needs (Tangen, 2012). Special education has in the later years received a lot of critique regarding the yield the students have, the content and methods are not properly adapted and the education itself is exclusive rather than inclusive (Haug, 2022). Since 1975 there have been eight white papers regarding special education, however the critique remains the same as it has been, and one can ask if there really have been any changes during the last 40 years (Haug, 2022).

Special educational needs in children and adults can be understood both individually and within a societal approach. The individual approach sees the barrier and special need as primarily distinctive traits of a given person. Such barriers could be physiological or psychological diagnoses or deficiencies. In this view, we must do something with or for the individual to reduce this barrier. This could, of course, mean guidance for teachers and parents or measures directed at the individual. However, these difficulties are considered traits of the individual. This view has been at the forefront, both in special education and the rest of society. In later times, a new and more societal understanding emerged. This understanding sees barriers and difficulties as being due to challenges and demands in the surroundings and society's lack of accommodation of the individual in question (Haug, 2022; Tangen, 2012). Thus, these barriers and difficulties can be viewed as individual traits, a combination of these traits, societal accommodation, or the lack thereof. For example, we typically see being deaf as a disability. Still, in a society in which everyone speaks sign language, those who can hear but cannot speak sign language face barriers and difficulties. Another example is being tall in a society made for short people, or *vice versa*. The barriers and difficulties we face are based on what kind of individuals the society accommodates.

The first established educational offers for children with special educational needs in Norway were a school for the deaf in Trondheim (1825), "redningsanstalten på

Grønland" (savory school on Grønland) (1841), a school for blind in Christiania (1861), and a school for the mentally disabled in Christiania (1875). In 1881, the government passed an educational law for children with special educational needs. However, only those children with mild mental retardation could go to school, and quite a large group was still considered unfit for education (Befring, 2012). This law was, in reality, a coercive law that required all abnormal children to be registered. The schools used the Binet-Simon intelligence scale to differentiate between children meant for the special schools and children in need of child welfare services. Children with IQs under 90 were referred to as "slow", those with IQ 55–35 were referred to as "imbeciles," and those with IQs below 35 were referred to as "idiots."

The law for special educational schools (*spesialskoleloven*) was established in 1951 with five categories of special educational needs; sight, hearing and speech, youth with adjustment difficulties, and mental retardation. Children with severe mental retardation were not considered part of this law, because they had been deemed ineducable (Befring, 2012).

During the 1960s, there were critical voices regarding specialized and segregated special education schools. Concepts of integration, decentralization, and normalization were breaking into the relevant debates. In 1969, the Blom Committee received a mandate to develop a new law regarding special education (The Ministry of Education and Research, 1997).

1975 marked a change in both general education and special education in the form of the new educational law. Now, everyone had the right to an education, no matter what kind of disability or special need they had. This law also marked the beginning of the end for special education schools. The organization of children with special educational needs should be based on their integration and inclusion in ordinary schools. In 1992, most special educational schools closed, and new special educational competence centers opened (Askildt & Johnsen, 2012). Regarding the reforms of L97, Hernes described the therapeutic ideology of special education and

how this ideology robbed students of their actual opportunities. Hernes meant that we must have the highest ambitions for students who are considered “weak” and it is one of the main goals of the educational system to find talent in each child (Volckmar, 2016).

Between 1984 and 1997, the percentage of students who received special education rose from 3% to 6.2%, with the largest increase being observed between 1984 and 1992 (3–5.87 %) (The Ministry of Education, 1997). Today, the percentage of students who receive special education is approximately 8 %, and this number has remained stable over the last ten years (NDET, 2020.)

In the 1990s, comprehensive school was criticized for not being able to handle the diversity in abilities and predispositions in ordinary classes. This was because of the dominant position of joint teaching in the same classroom, which was not differentiated and not appropriate for including students with special needs (Eckhoff, 2001). In the late 1990s, some alternative offers arrived. These were officially attached to the ordinary school but had smaller groups in different settings specialized for students with, e.g., behavioral difficulties. These alternative offers, along with the critique regarding compulsory school, paint a picture of a Norwegian educational system struggling with inclusion. The diversity in one class may be so large that students are not working on the same assignments and, thus, have little in common. However, removing the difficult students is not in line with the egalitarian ideology of the comprehensive school (Eckhoff, 2001).

Now, most of the children and adults with special educational needs receive their education at their local school. According to the NDET, 46% of students with special education receive their education mainly in regular classes, while 9% receive their education at special schools or classes (NDET, n.d. b).

According to Nordahl et al. (2018), special education is exclusive and not functional. Students’ rights to participation and inclusion were not appropriately implemented in

schools. The authors propose a new system in which the resources in pedagogical and psychological centers (PPTs) are used more closely with schools and students and the individual right to special education is removed from the educational law (Nordahl et al., 2018). This proposed change has received critiques from various directions. Several consultative bodies have argued that this change will remove the rule of law for students in need of special facilitation (Ministry of Education and Research, 2019).

3.4.1 Genealogy of education

Regarding education in general and special needs education specifically, power is a critical aspect. To perform an archeology of education without including power as a social force would be a huge limitation, especially if one wants to explain some of the changes that have occurred throughout the history of education and special needs education in particular. For this reason, we must address power in the historical excavation.

Knudsmoen and Simonsen (2016) specify that, within the research tradition of special education in Norway, Foucault's critical views have been underrepresented. They further argue that genealogy is an especially constructive critical lens via which to view special education. Foucault was interested in those outside the mainstream of society, such as lepers, the "mad," and the "abnormal" (Ball, 2013). This interest is transferable to the theme of special needs education, which is education for students that do not fit within the normal guidelines of society or education.

Ball (2013) explores the genealogy of education in England. In his analysis, we see that, in the late nineteenth century, schools become a new part of the state, both physically and empirically. The state took on the responsibility of training teachers and trained them to be experts in their fields and ethical exemplars. "They would bring the children of the urban masses under their moral observation" (Ball, 2013 p. 41). As education became the state's responsibility, the population became a resource the state had to nurture. This was intended to achieve social order, economic

prosperity, and social welfare. This new type of political rationality sought to increase the scope of power by tightening discipline for its subjects (Ball, 2013). The genealogy of educational policy is, thus, a history of the management of the population, one marked by specific conceptions of normality, classification/exclusion, and welfare. Ball views classification through grouping by performance as the erasure of difference (Ball, 2013). This erasure is tightly connected to normalization. Normalization is a standard that unifies practice, and in school, we see it through the distribution of ability. “Normalization becomes one of the great instruments of power at the end of the classical age” (Foucault, 1979, from Ball, 2013, p. 54). This normalization continues to affect schools.

There are two main strategies of power according to Foucault, anatomy-politics and bio-politics (Knudsmoen & Simonsen, 2016). Anatomy-politics aim to make the human body docile through normalized conduct and focus on body and biological processes. This strategy emerged at the start of the eighteenth century. At the end of that century, bio-politics came into view. In bio-politics, normalization is considered in terms of medicalization and diagnostics, especially concerning deviancy, disability, and impairment (Knudsmoen & Simonsen, 2016).

Norway established the first educational offers for children with special needs in the middle of the 1800s. In 1881, Norway passed an educational law for children with special educational needs. However, a large group was still deemed unfit for education because only children with mild mental retardation could attend school (Befring, 2012).

This is part of Foucault’s *modern* episteme. In this episteme, one prominent aspect is what Foucault calls “new racism.” This new racism is a “biological caesura,” separating the degenerates and abnormal from the remainder of society to the benefit of all (Ball, 2013, p. 63). The government considered this morally through the help of eugenics and social Darwinism. The population would be better off when these “biological dangers” were taken care of through sterilization. Of course, there was no

need to educate these abnormalities. This approach would strengthen the species, and the responsibility was held by the state and its technologies of power. Therefore, "racism becomes a tool of the modern state" (Shein, 2004, from Ball, 2013, p. 64).

Now, we consider every child educable, and there is no need for a biological caesura. However, the power aspect remains prevalent in education. When the least advantaged individuals are humiliated or stigmatized by being excluded from ordinary education, this is an abuse of power. Schools must continuously handle the diversity within the student population, and inclusive education has been the go-to response to handle the various dilemmas occurring for students that do not fit within the box (Knudsmoen & Simonsen, 2016).

For future research, it is important to grasp the cultural, social, pedagogical, and political contexts producing the discourse on special education from an ethical perspective. In doing so, it may be possible to identify the struggles and points of articulation of knowledge, power, and governmentality, unmasking the contingencies and consequences of educational systems and power-knowledge and demonstrating the ways in which power acts on individual subjects (Knudsmoen & Simonsen, 2016).

I discuss power as an aspect of special education, ordinary education, and gifted education in Chapter 6.

4. Methodology

I want to introduce this chapter with a sequence from Odysseus. One of the many dangers Odysseus had to pass in his journey back home to Ithaca was the passage between two cliffs that harbored the two monsters Scylla and Charybdis. Passing too close to Charybdis would be met with a massive volume of water. Scylla, on the other hand, would snatch sailors and swallow them. When Odysseus attempted to avoid Charybdis, he steered a trifle too near Scylla, who took six of his most able sailors and devoured them (Gallagher, 2008, p.1).

These two monsters from Greek mythology are said to be the progenitor of the expression "between a rock and a hard place" because avoiding one of the monsters places you in danger of the other. Is this true for mixed methods as well? Is it possible to combine both methods sufficiently, or will steering these tricky waters involve dangers from both sides? Is it possible to be a true mixed-method researcher? Does being a true mixed-method researcher mean that one must align one's research perfectly in the middle of the two "monsters," qualitative and quantitative? How will I steer these dangerous waters?

In this chapter, I will first present my overarching epistemology, ontology, and axiology; the methodological choices I have made; and the analyses I have used in my thesis. I discuss research validity, reliability, and generalizability related to the various studies. At the end of the chapter, I discuss researcher reflexivity.

4.1 Mixed-methods research

Johnson, Onwuegbuzie, and Turner (2007) give the following general definition of mixed-methods research: "Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data

collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration" (Johnson et al., 2007, p. 123).

The research design in this Ph.D. study is a convergent mixed-method design (Creswell, 2015) with two sub-studies, one quantitative and one qualitative, and three articles, one quantitative, one qualitative, and one mixed. The design is not parallel, because I did not conduct the studies simultaneously. It has a sequential element, in which the results from the first quantitative phase influenced the development of the interview guide in the qualitative phase. However, the design remains convergent because the studies are primarily separate. The merging or mixing of the data occurs in the integration phase, Article 3, and the extended synopsis. Another way to view this design is as a component design (Jang et al., 2008), rather than as an integrated design. The component design differs from the integrated design because the different methods remain discrete through data collection and analysis. The mixing occurs at the level of interpretation and inference. The study is explorative and descriptive, seeking to investigate gifted education from two perspectives. According to Creswell (2015), utilizing different analysis units is efficient when comparing different perspectives. Including quantitative and qualitative data and the perspective of teacher and student provides a broader view of gifted education in Norway.

The rationale for choosing mixed methods as compared to a purely quantitative or qualitative approach a desire for breadth and depth in the same thesis. I utilize a broad perspective in the quantitative survey. The aim is to provide a descriptive insight into gifted education in Norway in leu of teachers' and educators' reports. The qualitative interview study allows me to more deeply examine the experiences that students with extraordinary learning potential have in Norwegian schools. However, choosing only a quantitative method would have allowed me to design a more sophisticated survey and analysis. In a purely qualitative approach, I could have chosen to interview teachers and students and provide a deeper investigation of the two perspectives. In the end, because my goal is to understand gifted education in Norway, I consider the mixed-method approach to be the best fit for this thesis.

According to the general definition, my thesis exists within mixed-methods research. However, there is the question of the actual *mixing* of the methods because the two studies are primarily separate. Is it enough to mix the results in the integration phase and still call the study a mixed-methods study? Johnson et al. (2007) present variations within the mixed-method field regarding how much and when the mixing occurs. Some scholars argue for strict definitions, in which mixing must be integrated into the entire design. Others only mention combining quantitative and qualitative methods for a study to be considered mixed (Johnson et al., 2007). Another question is whether the two studies and methods have equal status in the design. The studies each have a dedicated article, and the third article combines data from both studies. However, the sophistication of data analysis is more qualitative because the quantitative analysis is primarily descriptive and the mixed analysis is also on the qualitative side of the spectrum. Because the two studies are not equally valued analytically, we can conclude that the design is on the qualitative, rather than quantitative, side of the spectrum (Hesse-Biber, 2010).

4.2 Epistemology and ontology

Paradigms in mixed-method research are discussed extensively among mixed-method researchers (see, e.g., Biesta, 2010; Greene & Hall, 2010; Johnson, 2017; Johnson & Onwuegbuzie, 2004). One of the questions is dubbed the paradigm issue, as in is it possible to mix different philosophical stances and assumptions regarding reality. There are arguments for metaparadigm dialectical pluralism (Johnson, 2017), Deweyan pragmatism (Biesta, 2010), dialecticism, and American pragmatism (Greene & Hall, 2010).

I approach mixed-method research from a pluralist view and assume not a single reality but multiple forms of interpreting and constructing reality and the knowledge of reality. I do not place this research entirely within the metaparadigm of dialectical pluralism (Johnson, 2017) but, rather, within a combination of dialecticism and

pluralism. This combination requires reflexivity and dialogue between the different perspectives I present in my thesis and values divergent and dissonant results (Greene & Hall, 2010; Johnson, 2017).

Biesta (2010) argues that we must consider seven levels in mixed-method research, data, methods, design, epistemology, ontology, the purpose of the research, and practical research roles (p. 100). As for data, my research combines the use of numbers, in Study 1, and text, in Studies 1 and 2. The data collection involves a combination of survey and interviews. I previously explained that my design is a convergent mixed-method design (Creswell, 2015). Biesta (2010) argues for a distinction between interventionalist and non-interventionalist designs. My research fits within non-interventionalist design because both studies seek knowledge by observing a phenomenon, not through experiments or intervention. As for epistemology and ontology, I relate to constructivism and critical realism.

Constructivism sees the world as a complexity full of different lived experiences from the point of view of those who live it (Schwandt, 1998; Timulak, 2015). Such analyses do not assume a single reality. Instead, multiple realities are constructed and produced through language, representation, and other social processes, which are still valid and authentic for the people experiencing them. Critical realism, on the other hand, proclaims that the nature of reality (ontology) cannot be reduced to our knowledge of reality (epistemology), and it deviates from both positivism and constructivism (Fletcher, 2017). According to the critical realist, reality is stratified into three levels: empirical, actual, and real. The empirical level is what we experience and interpret, such as an apple dropping from a tree onto one's head. At the actual level, events happen regardless of whether they are experienced or not; the apple falls even if you are not sitting there. At the real level, causal structures and mechanisms exist, which act as forces on the empirical level; the law of gravity pulls the apple toward the ground. Critical realism seeks to explain social events through reference to the causal mechanisms that influence them (Fletcher, 2017). Combining these two paradigms, the constructivist paradigm explains the interpretations at the

empirical level, while critical realism seeks to go deeper and discover the underlying causal mechanism. Empirical realities are still accurate and authentic for the people experiencing them, but some causal structures and mechanisms influence and affect the experiences.

When it comes to the purpose of the research, in terms of the distinction between explanatory and interpretive research (Biesta, 2010), my purpose falls somewhere in the middle, though more on the interpretive side. The study is explorative, and the primary purpose is to provide an insight into gifted education in Norway. Even though I consider some correlations in Study 1, overall, the purpose of the design is not merely to *explain* gifted education but to better understand Norwegian gifted education. Lastly, the functional role of my research is in line with the cultural role of research, seeking to provide practitioners, in my case teachers and educators, with new ways of understanding and seeing their practice (Biesta, 2010).

I adopt a pluralist stand regarding axiology as well. I come from a background in special needs education, with notions of equality, equity, and social justice embedded in my professional roots. My research values and ethics still relate to these notions and a discourse standpoint, in which I value the conversation and different arguments we all bring to the table. As I argue for the needs of students with extraordinary learning potential, others will argue that these students do not require special attention. However, as an ethical researcher, I must value and listen to the arguments that other researchers and practitioners may have. I also must consider the perspectives of both students and teachers. When I argue for a change in the educational system to benefit gifted students, thus will also impact, positively or negatively, teachers and perhaps other student groups. Is it possible to argue for better benefits for one group if this will negatively impact another group? In the end, I cannot consider all potential results from my research or arguments, and I can only choose to argue for what I believe my research has to offer from my own ethical standpoint. After all, one potential result is no change at all.

I have now presented the reader with an overview of this thesis's background, standpoint, and rationale. In the following sections, I will present each study, including methods and analyses.

4.3 Study 1: Descriptive survey

The first study in this thesis is a quantitative survey with descriptive data from 339 teachers and educators. The data and results from this survey are used in Articles 1 and 3 and provide insight into Norway's gifted education based on the teachers' responses. The results were used to enhance the interview guide in Study 2.

In this section, I will present this study more thoroughly.

4.3.1 Participants and recruitment

Study 1 set out to explore gifted education using teachers' responses and perspectives. I decided to limit the teacher pool to comprehensive education, as in the primary and secondary levels (1st to 10th grade). I initially wanted approximately the same number of teachers from the primary and secondary levels and recruited participants from combined schools.

I contacted all combined 1–10 schools listed in the Norwegian Directorate of Education and Training through e-mail during spring 2017. The total number of schools contacted was 586. After three weeks, I called or sent another email to the schools that had not responded to the first inquiry. The schools that sent negative responses were not contacted again. After the second round of contact, 32 schools answered positively and sent the survey to their teachers. The response rate from the schools, in general, is abysmally low, with only 5% of the schools agreeing to participate. Of these 32 schools, 144 teachers answered; accounting for the total number of teachers at these schools, the teacher response rate is 20%.

I was not pleased with the number of 144 participants in the study and the low response rate from the schools that agreed to participate. Because these teachers had chosen to participate in their free time, I was worried about an interest bias on the part of these teachers (Gorard, 2001). I decided to recruit more participants in another fashion.

I changed the inclusion criterion from combined schools to all schools at the primary and secondary levels and contacted the governmental head of education in several municipalities in Norway and asked if they were willing to participate in this study. I received positive replies from two — one in eastern Norway and one in western Norway. The eastern region provided eighteen participants, and the western region provided 177 participants from fifteen schools. The response rate from the western municipality was 63%. However, unfortunately, the schools in the western municipality were mostly primary schools, so there is an overrepresentation of teachers at the primary level (63%). The selected sample is a convenience sample (Gorard, 2001), and we cannot generalize the findings to all Norwegian 1–10 teachers. See Article 1 for descriptive statistics on the 339 participants in the survey.

There is also an overabundance of female teachers (77 %). Eight out of ten teachers have a regular teaching degree, a four-year bachelor's degree with or without an extra year. The teaching degree has since been changed to a master's degree. Over half of the teachers in our study are contact teachers.

I cannot say that the result of the study is relevant to all teachers in comprehensive schools, but I can point at trends and indications of interest that should be further explored in later research.

4.3.2 Pilot and instrument

Before collecting participants, I performed a pilot test with 48 teachers to validate the survey questions. I conducted the pilot in two stages, first by contacting one secondary school with 44 teachers and inviting four teachers I knew personally. The

participants in the pilot answered the survey and provided feedback on the questions. Feedback included comments such as, “I am not sure what you mean by this question” or “I appreciate this question being open-ended, as that made me reflect more on where I have generated knowledge about gifted students.”

After the pilot and reading all the feedback from the teachers, I made changes in wording and formatting. I have not included the informants from the pilot in the final survey.

I collected the data using a web-based survey provided by SurveyMonkey (www.surveymonkey.com). With the help of my supervisor and technical help from Ole Johan Eikeland, I constructed the survey design using 25 questions ranging from background questions to specific questions regarding gifted students. The total survey design is included as an attachment. The research questions for the survey were as follows:

How much knowledge do Norwegian teachers report they have, and where do they report they have gained this knowledge?

How do Norwegian teachers evaluate the various characteristics of gifted students, and how do they describe the characteristics of gifted students?

How do the background variables of years of experience, experience with gifted students, and education level correlate with teachers’ knowledge and characterization?

How many teacher-identified gifted students are there, and are there any gender differences?

I could have used the frequently used “Attitudes Scale Towards Gifted Education” (Gagné, 2018). However, because I did not just want to consider attitudes but, rather, characteristics and differentiated education, I chose to develop a new survey. Developing a new survey also provided me with a learning opportunity. I developed

the survey using the relevant literature on gifted education, e.g., that on differentiation (Gagné, 2015; VanTassel-Baska & Hubbard, 2016) and characteristics of the gifted (Ackerman, 1997; Betts & Neihart, 1988; Cross, 1997; Idsøe, 2014; L. Lee, 1999; Lie, 2014) and other relevant literature (Renzulli, 2012; Shaywitz et al., 2001; Subotnik et al., 2011) within a Norwegian scope.

The "characteristics of giftedness" scale consists of 15 characteristics that the teachers agreed or disagreed with on a five-item Likert range (totally agree – totally disagree). This scale is simplified and does not represent all types of gifted students. We focus on the characteristics developed from the Norwegian expert literature (Idsøe, 2014; Idsøe & Skogen, 2011; Lie, 2014). Pre-service teachers use cognitive and socio-emotional characteristics when describing students with high learning potential (Brevik & Gunnulfsen, 2016). The 15 characteristics represents various cognitive and socio-emotional aspects, in line with previous research in Norway, and the open-ended question where teachers can write what they believe characterizes gifted students mitigates some limitations with the limited scale.

4.3.3 Ethical considerations

The Norwegian Centre for Research Data (NSD) has approved this study (see attachment). To answer the survey, all participants had to read the information letter at the beginning of the survey, included in the attached survey. The information letter stated that participation is voluntary and that there will be no collection of personal information to identify a specific participant. I collected indirect personal information from IP addresses. However, because most of the teachers answered the survey during their worktime, the IP addresses are related to their school and not considered personal information. Even so, the IP addresses are deleted from the final material. The other indirect personal information relates to gender and education. These and other descriptive data are only presented in their quantified form, and it is not possible to recognize any single teacher in the material. In Article 3, I use a few quotes from the teachers to illustrate the various themes. These quotes are translated

from Norwegian to English to provide anonymity and are presented without gender, teaching level, education, or other identifying information. By answering the survey, the participant completed an informed act of consent.

4.3.4 Validity and reliability

To enhance validity, I completed a pilot test before collecting the data. I included a definition of giftedness at the beginning to enhance the validity.

When analyzing the "characteristics of giftedness" scale, I performed a Cronbach's α to test the scale's internal consistency. The Cronbach's α had a value of .75, an adequate result (Pallant, 2016), and indicated that some items may require additional clarification. I also performed an exploratory factor analysis using Principal Axis Factoring, also known as the Principal Factor Method (Rencher & Christensen, 2012). It is common to use an exploratory factor analysis when there are no established expectations regarding how the factors will cluster, as compared to confirmatory factor analysis, which is used to test hypotheses (Henson, 2010; Rencher & Christensen, 2012). Because this scale was new and not previously tested, an exploratory factor analysis seemed the most fitting. The Kaiser-Meyer-Olkin Measure gave a result of .739, which is adequate for this scale (Pallant, 2016). Bartlett's Test of Sphericity was significant at .000, and we can assume the null hypothesis that there is equal variance across the group.

After examining the eigenvalue criterion, Cattell's scree plot, and a parallel analysis, we indicated a three-factor solution. A parallel analysis (Monte Carlo) is an accurate method of factor extraction, according to Rencher and Christensen (2012). Inspecting the three-factor solution in detail, every variable connected to the third factor, except "extroverted", was more closely connected to the first or second factor. This result led us to decide on a two-factor solution. The factor analysis is in appendix 1. Initially, the factor analysis was meant to be a part of the first article, however, comments from a journal reviewer made us rethink the use of the factor analysis in the article. We wanted to see if the factor analysis picked up on different constructs of

gifted students in the teachers' answers, and it indicates that there might be two different constructs, a positive and a negative. As the reviewer was skeptical to the analysis it was removed from the article, but is included in the thesis as an appendix (1). The conclusion from the factor analysis is that there might be an indication of two or more constructs within the scale, however, the scale needs further development before this question can be answered properly.

As explained previously, the participants are considered a convenience sample, and hence, we cannot generalize the results to the entire population of teachers in primary and secondary school.

4.3.5 Analyses

I performed all the statistical computations in this study in SPSS 25. The data from Study 1 are analyzed and presented in Articles 1 and 3.

Article 1 presents descriptive frequencies and bivariate analyses (Pearson and Spearman's Rho) with background variables to establish any significant correlations. This also includes paired t-tests to analyze gender differences in the reported number of gifted students per teacher. In Article 1, I also present a quantitative content analysis (Neuendorf, 2017) of the data from two open-ended survey questions: "Where have you gained knowledge about gifted students?" and "How would you, in your own words, describe gifted students?"

In content analysis, the data are split into smaller units for interpretation, and the goal is to produce a numerical count of key categories and a summary of these categories and concepts (Neuendorf, 2017). In developing the coding scheme used in the content analysis, I used the literature consulted in developing the survey and a preliminary review of the answers. The coding scheme was then input into SPSS 25, and all answers were re-read and coded accordingly.

In Article 3, I present data from the survey question "What kind of facilitation would you, as a teacher, give to students with extraordinary learning potential?" This data is

analyzed with a mixed-method approach, in which the codes from the qualitative interviews (Study 2) are used in deductive thematic analysis. I present this analysis more thoroughly in Chapter 4.5.

In Article 3, I also present descriptive frequencies on five questions regarding differentiation and adapted education.

4.4 Study 2: Interview

The second study in this thesis is a qualitative interview study with 17 gifted students in secondary school. The data from this study are presented in Articles 2 and 3. This study is explorative and inductive.

4.4.1 Participants and recruitment

The participants in the second study are 17 gifted students who attend different secondary schools in western and eastern Norway. They are between 12 and 15 years old, with a mean age of 14. Six are female, and eleven are male. The sample could be considered both a convenience sample and a purposeful sample (Gorard, 2001).

The participation criteria were attending secondary school, nomination by a teacher or parent, and a WISC-IV score at or above the 95th percentile. Initially, 18 participants agreed to join the study, but one withdrew before the interviews.

To recruit the informants, I utilized various strategies. I contacted "Happy children," which is a parental network for parents with gifted kids. I used social media (Facebook). I contacted a talent center in math and science and all the secondary schools in my home municipality. I recruited informants through all these strategies.

One of the inclusion criteria was a high WISC-IV score. I tested 13 of the 17 informants. The other four participants had been tested previously, and I could view and verify the test results. The gifted group is not homogenous and does not necessarily have a homogenous profile. I decided that a score at the 95th percentile in

at least one subscale on the WISC-IV was sufficient to be included, which meant that they could have high scores in some subscales and lower scores in others. The WISC-IV is a cognitive measurement test with four subscales, Verbal Comprehension (VC), Perceptual Reasoning (PR), Working Memory (WM), and Processing Speed (PS). The participants had scores in the 95th percentile, first and foremost, in VC or PR, which means they have an exceptional learning potential in language, reading, or writing (VC) or logical fluid reasoning and visual-spatial skills (PR). Some participants had homogenous profiles, with high scores in all subscales, while other participants had more heterogenous profiles, with high scores in some scales and lower scores in others. Because the test results are considered sensitive personal information, they are not available to readers and are only presented generally.

4.4.2 Semi-structured interview

My goal with this qualitative study was to understand the various experiences that Norwegian gifted students have. To achieve an open and inviting dialogue with the participants, I chose a semi-structured interview guide (Kvale & Brinkmann, 2015). The interview guide had some established questions but was open to following the major and interesting points that the participants shared. I developed the interview guide from the following main research question: *how are Norwegian gifted secondary school students experiencing their education?* I utilized previous research in the field (Bracken & Brown, 2006; Gómez-Arízaga & Conejeros-Solar, 2013; S.-Y. Lee et al., 2012; J. Peterson et al., 2009; J. S. Peterson & Ray, 2006; Samardzija & Peterson, 2015) and results from the quantitative survey (Study 1), for example, whether teachers recognize their talents or not. The interview guide is available in full as an attachment (Appendix 3).

The topics in the interview guide were experience and strategies in school, adapted education, family and friends, underachievement, social-emotional issues, and involvement in education. A topic I could have included was whether or not the students had experienced the different best practices presented by Gagné (2015). This topic should be included in further research.

I interviewed the participants in spring 2018. I traveled to their homes or schools and met with them in settings they had chosen and were comfortable in. The interviews were recorded on a recording device, and I took some notes on my computer during the interviews. Some participants had a parent present during the interview, and in some cases, the parent also answered some questions. I marked the responses of parents in the transcript and did not use them on their own in the analysis. The interview duration varied from 16 minutes to 1 hour and 20 minutes. The shortest interview was the last one. This participant answered all questions but was a great deal less talkative than some of the other participants.

The total data consist of 303 pages of transcripts with a Times New Roman size 12 font and 1.5 line spacing.

4.4.3 Ethical considerations

The Norwegian Centre for Research Data has approved this study (Appendix 2). Because this study has participants aged from twelve to fifteen, I asked for consent from both the informants and their parents. They received a written information letter about the study and gave their informed written consent (Traianou, 2015). The information letter is available in the attachments (Appendix 3).

To preserve the participants' privacy, I have removed all names and places when discussing themes and quotes. I informed the participants that they could withdraw, even after the interviews. I have been in contact with some participants to member check the results and themes. None of the participants have shown a need or desire to withdraw from the study.

Children, as participants, are considered more vulnerable and require more protection than adult participants (Traianou, 2015). I have synthesized the results so as to create a combined story, rather than sharing the individual narratives. Even so, I share individual quotes that emphasize essential issues. The individual quotes are translated from Norwegian into English, which provides an additional layer of anonymity, and

there are no ages, genders, or names associated with the quotes in the articles. Quotes in the articles are referred to with the genderless pronoun they/them.

4.4.4 Thematic analysis

I used thematic analysis when analyzing the qualitative data from the interviews and follow the six steps listed by Braun and Clarke (2006) in inductive thematic analysis. Thematic analysis may consist of various forms of analysis, from using a deductive schematic to an inductive analytical form, in which the data drive the codes, themes, and results (Braun & Clarke, 2006). My methodological standpoint is constructivism and critical realism, meaning that I value various lived experiences and do not assume a single reality. Still, I also want to consider the causal mechanisms that may affect each informant's experiences. Hence, I am not reporting each individual's lived experience or individual narrative but, rather, broader themes.

I decided on an inductive thematic analysis as the best fit for the research question and design. I will now present the six steps and how I followed them in the analytical process.

Step 1	**Step 2**	**Step 3**	**Step 4**	**Step 5**	**Step 6**
A close reading of transcripts	Generating initial codes	Searching for themes	Reviewing themes	Defining and naming themes	Producing the report

In Step 1, I transcribed all the interviews *ad verbatim*, including small pauses, sighs, laughter, and other sounds. I reread each transcript several times before coding to obtain a general feel for the material and the stories the students tell. My supervisors also read the transcripts. In Step 2, I coded the material using NVivo 12 pro (QSR International), a computer-assisted qualitative data analysis software program (Silver and Lewins, 2015). I organized the data by question and interview, so I had the

individual answers to each question in the same document and could look at similarities and differences between each informant. After coding by question, I reread each interview in full and coded again, looking for new codes and factors I overlooked in my first session. This coding method was sensible because it first gave me a bird's eye view of the material and then a more in-depth look at each informant. The different coding sessions resulted in 98 codes in total. The codes and themes are presented in Articles 2 and 3.

In Step 3, I searched for themes. Again, the bird's eye view of the material was relevant to and necessary for establishing the various themes. Some codes were easily grouped, such as codes related to schoolwork (extra assignments, groupwork, homework, and writing), while other codes remained separate until I had drawn conclusions regarding the broader themes. In Step 4, I discussed each theme with my supervisors and the co-authors of the qualitative article. I wrote summaries of each theme, examined them for commonalities, and searched for the overarching story these themes represented. In Step 5, I reviewed, described, discussed, and named the themes with my supervisors. This report is Article 2.

4.4.5 Researcher positionality

As a qualitative researcher, it is essential to establish my positionality, predispositions, and potential biases (Becker, 1967; Finlay & Gough, 2003).

My interest in gifted education began as a bachelor's student in special needs education at the University of Oslo. I remember reading a newspaper article about a gifted student in primary school and all the issues and difficulties that the student faced simply because of being gifted. I remember this sparked a genuine interest in me; it resonated with me. Of course, it would be dreadfully dull to start school in first grade and learn your ABCs if you already knew how to read and write. I began to wonder why I had never heard about these issues, not as a bachelor student in special needs education or previously. The spark grew; I wrote my bachelor's thesis, my master's thesis, and now, my doctoral thesis on this phenomenon.

I am not new to the phenomenon of gifted education; however, with a degree in special needs education, I may view this phenomenon differently than other researchers with, for example, a pure teaching background. This can be considered both a strength and a weakness. As shown in Chapter 3, special needs educational history is marked by the ideas of the normal and the abnormal, or those outside the norm. Special needs education considers the individual, social, and environmental aspects of education. However, there is always a degree of problematization. My background may make me more prone to see problems where there are none, and it also may help me discover issues in the system that others overlook. Hopefully, by being aware of this potential bias, I can help counteract it by being reflective and discussing the themes and results with other researchers with different backgrounds.

In Study 2 and Article 2, I present the perspectives of students, and thus, the research adopts the lens of students and should be read accordingly. I have not interviewed the various teachers of the participating students, and they might disagree with how the students portray their education and teaching.

In Study 1 and Article 1, I utilize teachers' perspectives; however, as this study is descriptive and broad, it provides the reader with an overview rather than the individual perspectives of each teacher. In Article 3, I use both perspectives, and I seek to incorporate the perspective of the educational system as a whole.

4.4.6 Transparency, validity, and reliability

To provide the reader with information about the quality and credibility of my research, I will provide the measures I have used in this regard. One inclusion criterion for participation in the study was a WISC-IV score on the 95th percentile or above. The WISC-IV is a cognitive measurement with an average reliability score of .97 on the full scale, as well as .94 on VC and .92 on PR, in the original version (Wechsler, 2003). In the Norwegian translation, the r scores are .98 on VC, .92 on PR, and .97 on the full scale (Wechsler, 2009). In terms of validity, the WISC-IV is an established tool for measuring cognitive ability, and it is a validated test for

measuring intellectual giftedness. In the validation of the WISC-IV, they gave the test to a clinical group with intellectual giftedness. They found that the gifted group scored substantially higher on VC and PR than age peers but only moderately higher on WM and PS (Wechsler, 2003). These results imply that the participants in my study show intellectual giftedness in one or more subscales. However, it also limits the scope and excludes participants with other forms of giftedness and other definitions of giftedness (see Chapter 3).

I coded every interview individually; however, one of my supervisors also coded a segment of the data, resulting in similar codes. I did not calculate inter-rater reliability, because we utilized coding meetings and discussions instead to check for reliability and agreement among myself and my two supervisors (co-authors of the articles). As for the thematic results, I performed member checking with participants by inviting them to a session at which I presented the themes and findings. Those who joined the session agreed that the themes represented them and their experiences. I also returned to the material to look for disconfirming evidence (Creswell & Miller, 2000), and I achieved data saturation in the coding (Fusch & Ness, 2015).

I will now more closely examine the establishment of validity during the interviews.

4.4.7 Validity as Dasein and research praxis

Dasein is a concept from the philosopher Heidegger. In Heidegger's theory, Dasein means the self as a subject, without the baggage and presuppositions associated with the notion of the subject. Dasein is a combination of the words Da and Sein, which means there and being, but taken together, the most literal translation would be existence. However, Dasein is more than merely existence or the subject; by breaking away from baggage and presuppositions, we can truly see the subject in its being as a subject (Buchanan, 2010a).

In terms of reality or how we think about reality or ontology, Heidegger tells us that we must differentiate between two kinds of questions: the ontic question about the

properties of being and the ontological question about ways or modes of being (Dreyfus & Wrathall, 2007). In qualitative research, we are interested in the ontological question, not the properties of our research subjects but, rather, the ways and modes of being our subjects have in the world. In this thesis, I use constructivism and critical realism as an ontological lens to explore the ways and modes of being a gifted student in secondary school.

Heidegger describes understanding as showing the possible or available range of ways to be, the can-be or ability-to-be, which he calls *Seinkönnen* (Dreyfus & Wrathall, 2007). All these possibilities are constrained and not indifferent. Heidegger shows us that all human beings are constituted as beings because we inhabit a shared world. Later, we structure this shared world by ourselves and by others. When we ask the question, "Who am I," or as a qualitative researcher asks, "Who are you?" it is important to note that, in the everyday existence, my essence and the essence of my research subject are not dictated by myself or by themselves but by others (Dreyfus & Wrathall, 2007). How my research subjects explain their modes of being a gifted student are, therefore, not merely dependent on how they see and understand themselves but also how others, such as me as a researcher, see and understand them. This combined understanding is the critical part of Dennis's (2018) thoughts on validity.

When the research subject and I have a shared understanding of the stories and experiences, we also understand the essence of being in these stories. This shared understanding helps validate the feelings and experiences of the research subjects. This form of validity is vital, first and foremost, in my second study and second article, as well as in the third article and my thesis. My goal is to better understand gifted education in Norway; thus, it is essential to establish validity in my understanding of my interview subjects' modes of being in the world. Establishing validity through various means is essential for the reader to ascertain the trustworthiness of my research.

Dennis (2018) talks about validity in research praxis. “Praxis” is the Greek word for “doing.” It is used in critical theory to show purposive and purposeful human activity, meaning that the activities have a specific goal and a tangible outcome (Buchanan, 2010b). According to Leavy (2015), research praxis consists of four elements, genre, methods, theory, and methodology. Research praxis is the purposeful activity of doing research, the specific goal of answering a research question, and the tangible outcome of producing results and findings that answer the research question (Leavy, 2015). My research praxis consists of gifted education, quantitative and qualitative methods, theory on giftedness, and pluralist methodology, with both constructivism and critical realism.

When Dennis (2018) talks about validity as Dasein, she explains it as self-knowledge, certainty, how the researcher identifies herself with/in the research process, and praxis (p. 110). Dennis sees praxis as a part of Dasein, and it is self-reflective and linked to the nature of being. Later, Dennis (2018) uses Dasein to indicate the quality of self-understanding and how the “self” is at stake during the action one takes as a researcher. For the researcher to establish herself as a valid, worthwhile person, there is a need for an Other to recognize and approve that the researcher is such a person. The same is true for the research subject. The research subject also requires an Other to recognize and confirm that they are a valid worthwhile person. The researcher and the research subject can participate in the research activity, thus confirming and validating one another.

Dennis (2018) provides examples of how she validated the research subject through five modes of praxis: praxis as intentional and personal interest, praxis as listening past the facts, praxis as joining together, praxis as collaborative insight, and praxis as alongsideness in exploration. I will only present praxis as intentional and personal insight here, but I also established praxis through listening past the facts and alongsideness in exploration.

Regarding praxis as intentional and personal interest, Dennis (2018) explains that, by showing interest in what the research subject says, the researcher cares for their stories more profoundly than just as a means of answering a research question. The researcher can document interest by asking follow-up questions not indicated in the protocol or engaging in non-verbal encouraging statements, such as nodding or cheerful sounds [uh-huh, yes, yeah, wow]. In the following quote, I will show how I, as a researcher, established interest in one of the stories told by a student (Marie is not the participant's actual name).

> *Marie: Okey… eh, ehm. Yes, I could tell you about today. We had a substitute teacher in science, and we never had this teacher before. We felt that he was very ehm strict in like a military way almost.* ***Astrid: Okey?*** *Marie: Like, it was like we should stand very straight at the start of class and greet him, and then, he wrote us on the board on a scale from like beneath expectations, expected, surpassing expectations, excellent, like.* ***Astrid: He wrote all the students?*** *Marie: No, just, no the whole class in general.* ***Astrid: Okey.*** *Marie: Ehm, and then it was very much like you have ten seconds to pack your stuff and ten seconds to go to recess and such, so I think everyone in class experienced it very differently from what we have had previously.* ***Astrid****:* ***In a positive or negative way?*** *Marie: No, ehm, I don't know. For me, a bit negative, I think, since he was very unnecessary strict really, but I think it was; people thought it was a bit funny as well, in a way.* ***Astrid: Well, it was something completely different, at least.*** *Marie: Yes! [laughter].*

In this quote, Marie talks about a weird experience with a substitute teacher in science. She and the rest of the class felt that the substitute was very strict, almost military. I react to the story with an "Okay?". My mimic and non-verbal gestures asked, "What is this? Tell me more." She continued with her story. I asked follow-up questions and, in the end, wrapped up the story she told by confirming that it was something quite different. Regarding my research question, this story was not that interesting. In terms of establishing a connection and showing my interest in Marie, this story was important. I show her, with my questions, my facial response, and my non-verbal response, that I am interested in her and her stories. She responds to my interest by telling me more and confirming how I wrap up her story in the end. I

validate Marie and her stories by showing interest and showing her that she matters to me as a research subject and person.

Another example of validation through intentional and personal interest is found in the following quote from an interview with Adrian (not his real name).

> ***Astrid: Have you ever experienced being so engaged in an assignment that you have forgotten time and place?*** *Adrian: Yes, several times.* ***Astrid: When has this happened?*** *Adrian: For example, when I'm working with Rubic's cube. [laughter]. Like, on the bus.* ***Astrid: Have you ever missed your stop?*** *Adrian: No, that has not happened.* ***Astrid: But you feel that you are so focused that you do not notice what happens around you?*** *Adrian: Mmh.* ***Astrid: Has that ever happened at school?*** *Adrian: No [shakes his head vigorously].* ***Astrid: No. [laughter].*** *Adrian: It has not happened at school.*

In the extract above, I ask Adrian about an idea called absorbed coping, in which one is so absorbed in what one is doing that the rest of the world slips away from sight. Adrian has experienced this when he is working with a Rubic's Cube. When I ask him if he has experienced this at school, he becomes almost comically serious, and I cannot help but laugh. Previously during the interview, Adrian told me that there were issues with how the teachers adapted and facilitated his education. The idea that he would achieve a state such as absorbed coping at school seems ridiculous when one considers the entire interview in full. I validate what Adrian has told me earlier by showing interest and understanding the essence of what he tells me in this extract. Adrian would likely enter into a state of absorbed coping at school if he received the adapted education he needs. However, with regard to his story, the notion of him being absorbed at school seems laughable. We have a shared connection at this moment; Adrian knows that I am interested in him and his stories, and the fact that I laugh confirms our relationship.

Some of the praxis variants (Dennis, 2018) are not that prevalent in my material. However, I found statements and passages in each interview in which I established interest in the participants and their stories. In these passages, it is clear that the

participants feel validated as both a research subject and a person of interest. I am not merely interested in the stories directly related to my research questions, but I am interested in what makes my participants tick. I am interested in how my participants are being in the world and how we can have a shared understanding of their existence. In our shared experience in research practice, I validated their being in the world, and they validated me as a worthwhile researcher and person.

4.5 Mixing and integrating results

In Article 3, I combine the data from Studies 1 and 2 regarding facilitation and education adaptation. The central mixed research question for Article 3 was "*To what extent does the thematic analysis of gifted students' experience of adapted education confirm or differ from the survey results regarding how teachers facilitate their students?"*

To answer this research question, I utilized the codes from the inductive thematic analysis as a deductive coding scheme for the open-ended survey question *"What kind of facilitation would you, as a teacher, give to students with extraordinary learning potential?"* The codebook created from the deductive coding is available in the attachment (Appendix 1). Some of the codes from the students were not prevalent in the teacher material, and I also had to develop some new codes that did not fit any of the student codes. In the codebook, I differentiate between the deductive student codes and the inductive teacher codes.

Article 3 only combines some of the data from the two other studies; however, in the synopsis, I will consider and compare the data from both studies and all three articles. The data and results will then be integrated, compared, and discussed to examine both similarities and potential divergences and dissonance. This combination will, in the end, provide the reader with a summary of and insight into gifted education in Norway.

5. Summary of the articles

In the previous chapter, I describe the methodological choices made to ensure that my research is reliable, valid, and ethically sound. This chapter provides the reader with a summary of the three articles, highlighting the results from the two studies and the mixed results.

5.1 Article 1

Lenvik et al. (2022). Teacher's perspective on extraordinary learning potential in Norway: A descriptive study with primary and secondary teachers.

In the first article, the quantitative survey and teachers' reports are in focus. The article presents descriptive results from a quantitative survey with 339 teachers. The article aimed to provide an insight into teachers' perspective on education for gifted students in Norway.

The rationale for this article was that there is a gap in the Norwegian research literature regarding teachers and giftedness (Børte et al., 2016) and teachers are the most crucial factor in providing students with the differentiation and adaptation they need to reach their potential.

The results show that Norwegian teachers want more knowledge about giftedness and facilitation for gifted students. In this study, the teachers report they gained their knowledge through their own experience, not necessarily through their teacher education. Fourteen percent report they had no knowledge about giftedness and gifted students. There was a small negative correlation (r -.11, $p = 0.5$) between experience measured in years and answers to the question "To what degree do you agree or not that you need more knowledge about gifted students?" teachers with more experience were less likely to agree with this statement. On the "characteristics of giftedness" scale, the teachers mostly agreed with positive characteristics such as *performing well in school, being inquisitive, being willing to learn, showing advanced language,* and

being diligent. However, almost half agreed that gifted students can exhibit disruptive behavior. The content analysis of the teachers' descriptions shows codes related to cognitive and emotional traits such as *intelligence, curiosity, high subject knowledge*, and *fast learning,* as well as behavioral traits such as *boredom, hardworking, problematic behavior, independence,* and *need for individual adaptation*.

Three out of four teachers report that they have, at some point, had a student with extraordinary learning potential. On average each teacher has had six gifted students, with three girls (mean 3.24, SD 3.95) and three boys (mean 3.64, SD 3.65). 44 % of the teachers claim they have gifted students currently, and they report on average two students each (one boy, one girl). I performed paired samples t-tests to evaluate the gender difference for reported boys (M 1.42, SD 1.20) and girls (M 1.34, SD 1.36; $t(91) = 1.82$, $p = .41$, two-tailed) which was insignificant (total boys M 3.64, SD 3.65; total girls M 3.24, SD 3,95; $t(164) = 1,81$, $p = .07$, two-tailed).

Because this article provides results from a convenience sample, it is impossible to generalize the results to all teachers in primary and secondary schools in Norway. However, this article still contributes essential information about education for gifted students in Norway. Teachers require knowledge about giftedness and facilitation for gifted students to provide the differentiation that these students need. Teachers must consider all the characteristics of gifted students, not only the positive and performative ones. Even though each teacher statistically should have one gifted student at any given time, only 44 % of the teachers believe they currently have gifted students. This result might indicate that some gifted students go unnoticed in Norway. It seems giftedness should be considered a topic of higher value in Norwegian teacher education.

5.2 Article 2

Lenvik et al. (2021). “We want to be educated!” A thematic analysis of gifted students’ view on education in Norway. *Nordic Studies in Education, 41*(3), 219–238. https://doi.org.10.23865/nse.v41.2621

In the second article, I present the results of the qualitative interview study and thematic analysis. This article aimed to explore gifted education in Norway through the student perspective. The main questions for this article were related to how these students experience school and the educational provisions they receive. I was also interested in potential differences between primary and secondary school, the students relationships with teachers, and their preferred teachers.

The results of the inductive thematic analysis are presented in terms of three main themes: *The Educational System, The Joy of Learning,* and *Problematic issues Concerning School and Learning.* The central phenomenon was that the educational system in Norwegian schools is not adequately prepared for or invested in gifted students. The system is not a good fit for the informants, and it is necessary to change the policy in this regard.

In Theme 1, *The Educational System*, the analysis shows systematic issues related to teachers, school, adapted education, and educational law. Teachers can be a promotional or inhibitory factor in gifted students’ education, especially their knowledge, attitude, and differentiation. The students prefer professional teachers who are knowledgeable and know to convey their knowledge, maintain control and a peaceful environment, and differentiate the curriculum. The students want more differentiated groups but consider this to be problematic in the Norwegian educational system. There is also a systematic issue concerning acceleration and facilitation, especially in primary school.

In Theme 2, *The Joy of Learning*, the analysis revealed various learning methods in school. The informants convey how they enjoy learning new things, especially logical subjects and overlapping projects that combine different subjects and elements.

In Theme 3, *Problematic Issues Concerning School and Learning*, the analysis shows various problematic issues that disturb gifted students' learning. These issues may include disruptions from other students, frustration with repetition, becoming bored and frustrated, and not receiving proper adaptation and facilitation. In their boredom, these students may display disruptive behaviors in the form of daydreaming or physical disruptions.

The students are only reporting on their own experiences, and there could be other students in Norway with vastly different experiences from the ones presented in this article. Still, it contributes valuable information about the situation of gifted students in Norway. The results indicate a need to consider the systematic challenges with gifted education in Norway, especially concerning differentiation, acceleration, and adaption.

5.3 Article 3

Lenvik et al. (2022) Adapted education for gifted students in Norway: A mixed-methods study.

In this article, I combine the two studies focusing on facilitation and adaptation for gifted students. I use a subsample of the teacher survey composed of teachers who answered "Yes" regarding whether they had gifted students currently ($N = 132$). I use a mixed-method approach with descriptive results from the quantitative survey, the qualitative results from the interview study, and combining the qualitative results from students with the teachers' responses to the open-ended survey questions regarding adaption in school. The overarching research question was "How is

education adapted for gifted students in Norway?", with quantitative, qualitative, and mixed sub-questions.

The results show that teachers in our selection agree that they use differentiation in their instruction, that it is possible to differentiate instruction, and that gifted students require adaptation beyond ordinary education.

From the inductive thematic analysis of the qualitative interviews with students, we developed three themes, *adapted education*, *the teacher as a promoter or inhibitor*, and *barriers regarding facilitation.* These themes display the various instruction strategies students have experienced. Furthermore, they show the kind of teacher the students prefer and how teachers can be inhibitors if they do not facilitate appropriately. The themes also reveal various types of barriers and challenges in education.

From the deductive thematic analysis of teachers' responses to the open-ended survey question, we developed four themes, *individually adapted education, instructional practices, the supporting teacher,* and *systematic challenges.* These themes show how teachers adapt the education they provide, as well as how teachers vary their instruction, support, and motivate their students, and experience systematic challenges for adapted education.

In the mixed analysis, we found both similarities and differences between the teacher and student themes. Both groups reported similar enrichment strategies within adapted education and barriers and systematic challenges regarding facilitation. There were differences in how the two groups described group work and acceleration. The students mentioned group work in a mixed-ability group, and the teachers wanted to utilize more homogenous groups. The students mentioned full-time acceleration and subject acceleration, while the teachers only reported acceleration in the form of using books and assignments from a higher level.

6. Discussion

This section combines and discusses the results from both studies and all three articles, combined with the theories, educational history and notion of power presented in this synopsis. The aim is to synthesize the results to achieve a systematic perspective.

6.1 Different definitions and characterizations of gifted students

As mentioned in Chapter 3, I use two different definitions of giftedness in this thesis: the "potential" definition (Gagné, 1995, 2010; Idsøe, 2014) and an IQ-based definition with a cut off at the 95th percentile. The rationale for using these two definitions is explained in Chapter 3.

In Article 1 and the results for the "characteristics of giftedness" scale, we see that teachers typically agree with the positive characteristics listed and have a positive view of giftedness. Their attitudes are not measured, so we cannot say whether they have positive attitudes toward gifted education, as, for example, the teachers in Finland have (Laine et al., 2019). However, their positive characterization of gifted students seems to be more in line with the harmony hypothesis than the disharmony hypothesis, in contrast with teachers in Germany and Australia (Matheis et al., 2017). Persson (1998) argues that teachers in Sweden view gifted students as golden or ideal students. There are similar tendencies among Norwegian teachers as well.

The characteristic that the teachers most often agree with is "performs well at school." This result coincides with the misconception that high ability equals high achievement and may mean that underachievers are in danger of being overlooked as gifted in Norway. This result aligns with previous research in which teachers focus on achievement (Endepohls-Ulpe & Ruf, 2006; Heyder et al., 2020; Lavrijsen & Verschueren, 2020).

Underachievement is an issue in gifted education internationally (see, e.g., Hebert, 2001). The material in this thesis cannot indicate the prevalence of underachievement among gifted students in Norway. However, underachievement may be an issue, especially because one of the factors in underachievement is a lack of differentiation and adaptation in school. In Articles 2 and 3, the results show a lack of proper differentiation and systematic issues with acceleration and facilitation for gifted students in Norway. In Article 2, the results show that a lack of differentiation can result in boredom and disruptive behavior among the gifted students in the study. There are also indications that gifted students are less motivated and do not perform as well as they think they could when assignments are considered boring and unchallenging.

In the literature review, there were indications of biases, for example, biases related to gender. I do not have data that indicate a gender bias in Norway. There was no significant difference in the quantitative survey between how many gifted boys and girls the teachers had had experience with. In Study 2, however, there were eleven boys and six girls. This reflects a gender difference in terms of nomination for this study. I did not include gender as a variable in nomination, because I did not want to exclude some gifted boys because fewer girls had been nominated. This may still indicate that the result in this study is more expressive of the boys' perspective than the girls'. We do not know the differences in how gifted boys and gifted girls in Norway view and experience their education. This should be explored in further research.

The research field of gifted education is considered new in Norway, although, as we saw in the introduction, Hofseth wrote a thesis about gifted students in 1968. Education for the gifted in Norway may be more undeveloped than new. Because there are no official programs or policies for gifted education, I have not considered racial, cultural, or socioeconomic equity within gifted education in this study. The lack of an official definition of giftedness in Norway also means that Norway has the opportunity to elude the stereotypical views and biases regarding giftedness by going

directly to a definition of giftedness without gifted students (Borland, 2021). Suppose Norway, instead, utilizes the differentiation paradigm and differentiates according to the needs and predispositions of each student, one not based on a definition of giftedness that may exclude students with diverse backgrounds. In that case, there will be an opportunity to enhance education for all students. This paradigm would also fit with the egalitarian views prevalent in Norway (Frantz & McClarty, 2016). However, is this differentiation paradigm possible within the educational system in Norway?

6.2 Giftedness within the Norwegian educational history

In this section, I will use the historical review provided in Chapter 3.3 as a scope for gifted education in Norway.

The educational history of Norway shows how Norway went from education for the few to a compulsory Christianity school for all and, ultimately, to an egalitarian tradition aiming to provide an inclusive, equitable, and adapted education for all students, regardless of their needs, abilities, and predispositions (Høigård & Ruge, 1963; Kvam, 2016; Nordahl et al., 2018; Thuen, 2017).

General education was made available to the people in the eighteenth century. However, not everyone was deemed educable. There was clearly power in education and determining who could or could not receive an education. The educational system in this century had no room for social mobility, because there were different schools for the different socioeconomic levels of society (Hommerstad, 2018). Only those attending Latin schools could go on to further education, and these schools became more and more exclusive, representing elite schools for the upper class (Thuen, 2017). Children from lower socioeconomic groups had almost no chance of going on with higher education, unless they were discovered as gifted.

In the eighteenth and nineteenth centuries, certain methods of targeting clever or gifted students, using competition and rewards or the Bell-Lancaster method, emerged (Høigård & Ruge, 1963; Thuen, 2017). However, these methods did not consider what gifted students needed.

With the new public schools created in 1889, the government wanted to provide proper education for all children in Norway, independent of their social class or standing. Again, the issue of power is apparent. The state took responsibility for schools and education and established a comprehensive five-year public school, and the state needed to nurture its garden (Ball, 2013; Kvam, 2016). A few years previously, in 1881, the government passed a special educational law, with segregated schools for children with special needs, though a large group was still considered unfit for education (Befring, 2012). The Binet-Simon Scale was used to weed out those children who were considered "imbeciles" or "idiots". However, there are no references to this scale being used to identify those on the opposite side.

In the beginning of the twentieth century, compulsory school (5 years) was considered the same for all, but secondary and upper secondary school were differentiated into lines or schools. There were different upper secondary schools for children from the city or countryside, and only the most diligent students went to these schools. "Realskolen" was established in 1935 and intended to be concluding, with students who wanted further education attending Latin schools (Thuen, 2017). Here, we see how organizational differentiation through different courses and lines remained a prominent aspect of power. Even after the Second World War, those who attended education beyond the compulsory were mostly sons of academics or part of the upper societal layer (Thuen, 2017).

The 1954 law regarding trials in schools (*lov om forsøk I skolen*) allowed attempts at various types of organizational differentiation in school, and secondary school was split into different lines. In this period, the schools and school psychologists also used the maturity test developed by PFI for individual differentiation and creating an

effective educational system (Thuen, 2017). However, this attempt did not have the desired results (Volckmar, 2016). Organizational differentiation into different lines was ended in 1967, but differentiation between courses or levels in each subject remained.

One interesting aspect in this period was a discussion of equality in school, with equality of results being the goal. A minimum goal was set, and all students were intended to achieve this result. Hofseth wrote his thesis at this time, but because his results showed that the gifted students achieved proper results (even if they weren't truly enjoying school or developing their potential) (Hofseth, 1970), there was no need to advocate for this group. Regarding equality of results, their needs were being met, and it was deemed more important to focus on those students who were falling behind and not achieving the necessary results. Another important point is the discussion of meritocracy and the fear of a "mercilessly intelligence overclass system" (Thuen, 2017). It seems that catering to the needs of gifted students would lead to a meritocracy. As a continuation of this thought, M74 cancelled all forms of organizational differentiation in secondary school and utilized adapted education as individual pedagogical differentiation. Frantz and McClarty (2016) view the difference between meritocratic and egalitarian cultures as an important distinction, and organizational differentiation for gifted students in segregated schools or groups is prominent in the more meritocratic cultures.

In the 1970s, Hernes discussed equality. In the 1980s, he was more concerned with the lack of ambition in Norwegian higher education, and when he became Minister for Church, Education, and Research in 1990, he reformed the entire educational system (Kvam, 2016; Thuen, 2017; Volckmar, 2016). In view of gifted education, the new L97 curriculum gave less freedom to teachers to differentiate as they deemed necessary.

The new "knowledge school" in 2006 had ambitions to create a better school by providing better content, quality assessment, learning strategies, and individually

adapted education (Thuen, 2017). Both the teachers and students in my study are a part of this school type and follow this curriculum. Even though this school type was created with great ambitions, especially in the form of individually adapted education, my results indicate that this has not been the case for the gifted students in Norway. Neither students nor teachers have experience with individual adaptation in the form of individual plans or interventions. Of course, some would argue that providing more difficult assignments or books from a higher level could be seen as individually adapted education. The problem is that this is only a small part of a larger picture and does not follow the best practices for gifted students (Gagné, 2015). The closest this situation comes to individual adaptation is skipping a grade or completing accelerated classes.

If we draw a historical line, we can see that different types of differentiation have been tested in the Norwegian system. Organizational differentiation into different schools, lines, or courses failed because they either were too exclusive or did not provide properly for student diversity. Of course, the debate over inclusive schools ultimately led to demands for an end to segregation, or organizational differentiation. Pedagogical differentiation requires a great deal from each teacher, maybe too much. Hofseth (1970) found a 5–7-year difference in maturity between the students in one class. There is no reason to think this difference is less now. Haug (2020a) identifies at least a 4-year gap in first grade, and this gap only widens as the children grow. Is it possible to demand that each teacher differentiate individually with such a huge gap?

An egalitarian tradition means that everyone should receive the same opportunities; however, what a person makes of their opportunities is up to them. As I discuss in Article 3, this egalitarian tradition may be considered a barrier to gifted education in Norway because it hinders the use of some of the proper educational tools for gifted students (Gagné, 2015). It may be the result of a fear of going back in history to a time when higher education was for the elites. The egalitarian view determines that education is for all. Everyone, regardless of their cognitive or learning potential, has the right to the same education.

Finland is also considered egalitarian, and teachers in Finland display a negative attitude toward educational practices such as acceleration and ability grouping (Laine et al., 2019). In Sweden, Persson (2010) argues that egalitarian Swedish education aims for every student to achieve to a minimum level, while those with the ability to achieve much more are left alone to fend for themselves. With regard to discussions of results equality, we see the same in Norway.

The differentiation paradigm, as well as Renzulli's three rings, Mönks and Katzko's MMG, and Gagnè's model, all argue that gifted students require educational provisions to help develop their potential (Borland, 2021; Gagné, 2004; Mönks & Katzko, 2005; Renzulli & Renzulli, 2010). Outside of school, in sports or music, for example, there are countless opportunities for musically or physically gifted students to hone and develop their potential. Why is it so much more difficult for school and academic potential? Of course, there are different values and histories concerning school and extracurricular activities. Schools value community and building companionship across ability and socioeconomic levels, creating mutual trust and a common understanding (Volckmar, 2016). Inclusive education requires that everyone has a place in their local school and is provided for. Even so, the educational system may be able to learn something from sports, for example, and it is possible to work on both the general inclusive part and talent development at the same time.

The differentiation paradigm (Borland, 2021) argues for a practice that differentiates individually for those students who need differentiation. Gagnè (2015) presents the best practices for differentiation in gifted education: density, difficulty, depth, and diversity. Density is the most important, meaning that the curriculum is condensed and accelerated. In Article 3, we see that both teachers and students have the most experience with differentiation through difficulty and depth, while acceleration strategies, such as density, are lacking or result in self-study for the student. Organizational differentiation is problematic, and the Norwegian educational law prohibits permanent ability groups (*The Education Act*, § 8-2, 1998), probably because of the negative history of organizational differentiation. As the results from

Sweden and Finland display, negative attitudes toward ability groups are mirrored in other Nordic countries (Laine et al., 2019; Persson, 2010). It may be challenging to achieve the differentiation paradigm and proper individual differentiation in Norway. Frantz and McClarty (2016) show different versions of gifted education within egalitarian traditions, including giftedness within special needs education. Is that possible in Norway?

6.3 Gifted education within special education

Before I consider gifted education within the tradition of special needs education, we must look back at the history of special education and the aspect of power.

Students with special educational needs are said to be included in their local school, but we still talk about them using special wording. These students receive something different from the norm; they are in a field for "special specialists" (Ball, 2013). They are not part of the mainstream, and even if they are in the same classroom or the same school, they are still seen as outcasts or somewhat different from the others. They may be included, but that does not mean that the schools are inclusive.

When viewing this through a genealogical lens, we see the concept of power. There is power in education and creating knowledge, and therefore, there is power in deciding who can be educated and who cannot. As mentioned above, the genealogy of education is marked by ideas of normality and classification/exclusion. Special education contributes, in large part, to ideas of both normality and classification/exclusion. Who do we consider normal, and who is classified as "abnormal," atypical, or extraordinary and thus in need of special education? In addition, who may have special educational needs but still be excluded from such?

The words we use to describe those in need of special education are also related to power. These words are socially formed, through experiences, and they are a part of reasoning constructed through history through the effects of power (Popkewitz &

Brennan, 1998). Power is evident in both the language concerning special needs education and actions taken both locally and systematically. Defining someone as having a special educational need could be very stigmatizing for them, especially if this would mean they were separated from their peers and taught in different rooms. Students in special education have a "special" need, even if their need is the same as every other student, that is, to be educated according to their predispositions. Defining something as abnormal is always problematic. We have, fortunately, left the outdated historical view of "biological caesura" and "cleansing" the species. We agree that everyone has the right to an education on their terms and that a special educational need is accommodated through special education, at least regarding those attending ordinary education and those with "approved" special educational needs. As of now, gifted students do not have an approved special need.

Schools are also a place where observation, training, and treatment are used to change behavior or mold a body or mind. Within education, discipline is a normalizing practice, for example, by making the body docile and ready to learn (Knudsmoen & Simonsen, 2016). In later days, neuropsychiatric diagnoses have more often been used to explain negative behavior in school. This behavior is then understood as an individual problem that can be medicated. Using Foucault, it is more natural to see the negative behavior from a student perspective. Norms, problematization, marginalization, and exclusion are the results of a diagnostic practice, rather than a wish to protect the student in an inclusive setting (Knudsmoen & Simonsen, 2016).

In research on special education in Norway, Foucault and his theories have not been prominent (Knudsmoen & Simonsen, 2016). However, Steinsholt (2011, from Knudsmoen & Simonsen, 2016) considered Foucault's critical view on discipline and normalization. He knits the critical view together with the individual's position as a learner, the context of ordinary education, special education, and the notion of "satisfactory yield." What really counts as satisfactory, and who has the power to decide when the yield is not satisfactory? This is relevant for gifted students, who do not have a satisfactory yield but are still not considered in need of special education.

If we look back at the history of special needs education in Norway, we see that power through exclusion and classification is important. At first, this power was in deeming who could be educated and who could not be. Now, everyone is educable by law, and everyone has a right to attend the school in their neighborhood. Power is nevertheless still significant, and classification is still prominent. Students are classified based on grades, educational needs, diagnoses, gender, restlessness, shyness, outspokenness, and many other formal and informal classifications. Gifted students may or may not be classified as gifted; as seen in chapter 3, there are different conceptions of giftedness, and these will influence whether a student is considered gifted. In the survey, we provided the teachers with a definition of giftedness; however, they may have had other definitions in mind when answering the questions or identifying their gifted students. Underachievement may be an issue, especially if a teacher, first and foremost, considers giftedness in the form of high achievement, as is prominent in Article 1. High or extraordinary learning potential (NOU 2016:14, 2016) may be difficult to identify without considering achievement. As the results from Article 1 show, this is especially the case if teachers lack knowledge about giftedness and associated traits and characteristics beyond high achievement.

Traditionally, the individual focus is prominent in special needs education (Tangen, 2012). There can be much talk about challenges and problems, both in the system and when discussing a student. I have academically "grown up" in this tradition because I have both a bachelor's and a master's degree in special needs education. Does this mean that I have a "problem-based" view of the educational system? Does this shape my view of gifted education? I may see the problems and challenges clearly, but not the eminent solutions. Another issue regarding my relationship to special needs education is that I may be too tightly connected to this paradigm. Maybe, my relationship blocks me from seeing the challenges in a different light. However, it is also important to problematize the experiences of gifted students because they have educational needs that are not being accommodated. The qualitative literature review

paints a problematic picture regarding education for gifted students. The summary shows a need for various educational strategies, such as problem-solving, enrichment, and homogenous ability groups. The qualitative results from my interviews display the same results. Norwegian gifted students have the same needs as international gifted students. Adopting a "problem-based" view may provide me with a discourse that is necessary for explaining the issues within education for gifted students in Norway.

Another issue with my relationship to this paradigm is history. Special needs education history shows how "the imbeciles, the idiots, the mentally ill" (to use the wordings from a different time) and all those deemed uneducable, after decades of atrocities such as sterilization and demonization, finally gained their right to be educated like everyone else. However, equity is still an issue within special education because not everyone with special educational needs receives the same quality of education as students in ordinary education (Nordahl et al., 2018). The gifted have not faced this history, although they have received their share of stigmatization. Is it right, considering this history, to include the gifted within the special needs education paradigm? The gifted have not been excluded from education, but they might be excluded from an education adapted appropriately to their needs and predispositions. Educational history also shows that, even though there were trials with organizational differentiation, these were not specifically aimed at gifted students. In fear of returning to education for the elites or creating a new intellectual overclass, the education for gifted students has been ill-managed. The history of gifted education is a history of a group that has been viewed as able to manage independently and fend for themselves. However, history has proven that this is not the case. This group also requires unique accommodation based on their special educational needs (e.g., Cross, 1997, 2014; Gagné, 2015; Subotnik et al., 2011).

One of the problems with not including the gifted in this regard is that, if they do not receive accommodation for their educational needs, they are in danger of becoming underachievers, troublesome, or disruptive and developing social and emotional

difficulties. They are also in danger of being bullied (Cross, 2014; Damsgaard & Opsahl, 2016; Smedsrud, 2018; Subotnik et al., 2011). Another problem is that they may not achieve to the best of their abilities without accommodation. All these factors are considered part of the tradition of special needs education. If schools do not attend to gifted students' educational needs, because they are not considered in need of special education, they may come to need special education due to this lack of accommodation. Gifted students may also have learning disabilities, physical disabilities, or psychological disabilities and be considered twice-exceptional (Lie, 2014). Twice-exceptional students have the right to special education to accommodate their disabilities but not their gifts (NDET, n.d.b). Is it possible to facilitate properly while not considering all the needs of the student?

Of course, not all gifted students will require special education. The gifted group is heterogenous, and while some students manage quite well, other do not. The teachers in my survey agree that gifted students require more than ordinary adapted education. This might mean special education or simply a more individually adapted education. Even though the students in my qualitative study had many similar experiences, there were also differences. Some managed quite well, enriched their own assignments, or attended accelerated courses. Others had more negative experiences with disruptive behavior and almost dropping out of school. These extremities would not require the same type of intervention or adaptation.

Today, approximately 8% of the student body receives adaptation through special education (NDET, n.d.b). However, there are also many other students in school who have a need for individual facilitation who are not considered part of those in need of special education. Some scholars argue that up to 20% of the student population is in need of individual facilitation (Haug, 2020a; Hausstätter, 2012). This indicates that gifted students are not the only group of students who require more specialized adaptation.

Another important factor is the line between ordinary and special education. They are part of the same story and interdependent on one another. Special education is not just for those attending special schools anymore, and high quality in ordinary education lessens the need for special interventions through special education (Mjøs et al., 2020). This means that gifted students who attend schools with high-quality ordinary education will be more likely to have their needs met than those who do not. The political aim of reducing the amount of special education (Mjøs et al., 2020) is also important when considering who is in need of special education. One issue is the conflicts between different imperatives and understandings of both what constitutes high-quality education and how to achieve it (Haug, 2020b). Adapted education can be considered within a broad or narrow perspective, where the narrow perspective is more individualistic (Haug, 2020a; Olsen, 2020). Which perspective schools and teachers are utilizing will then influence what kind of adaptation and facilitation gifted students receive.

According to both my survey with teachers and the interviews with students, it is clear that gifted students require some kind of special pedagogical facilitation. However, whether this should be a part of special education, ordinary broad adapted education, or a narrower form of adapted education is not clear from my material. Previous studies in Norway have not provided a clear answer to this question. The answer will depend on the quality of ordinary education, how local policies and national policies adjust to interventions for gifted students, and the individual teacher's ability to adapt material to and facilitate for their students.

6.4 Upcoming changes and the road ahead

How can we approach the results of this thesis concerning educational law and systematic challenges? As Haug states, "It is impossible to avoid policy," and with that, he refers to both the national policy and the local policy of each school, including how they prioritize (Haug, 2020b). Haug further explains that national

support, policy, and priorities are essential in developing inclusive education. This is also true for gifted education.

One option is to expand special education to include gifted students. *The Education Act* § 5-1 states the following: *Students who do not have or cannot get satisfactory yield from the ordinary educational offer have a right to special education.* According to the law, it seems that gifted students have a right to special education because they are so far ahead of their peers that they do not obtain a satisfactory yield. However, the NDET (2014) has specified that gifted students do not have the right to special education, because special education is meant to provide for those who are behind.

The Education Act of 1998 is now up for revision. In the proposition for a new Education Act, the official report argues for a change in both the terminology and content regarding both adapted education and special education (NOU 2019: 23, 2019). The act proposes changing adapted education to *universal education* and special education to *individually adapted education*. The authors argue that universal education is more in line with how adapted education is considered now, variation within instruction, and a "whole group" approach. Previously, adapted education was considered to be more individual adaptation (Jenssen & Lillejord, 2010). Would universal education be better for gifted students than adapted education? According to the authors of the official report, gifted students are not considered in individually adapted education but, rather, one of the groups that requires adaptation within universal education (NOU 2019: 23, 2019). There is less individualism in the current understanding of adapted education; however, the differentiation and adaptation that gifted students need acquire a certain degree of individualism. Accelerative practices, skipping grades, or a personally accelerated pace are not variations for the entire class. Is it possible to provide the individual differentiation that gifted students require within adapted or universal education? Is the current understanding of adapted education hindering appropriate adaptation for gifted students? Within special education, the individual approach to education is more prominent, which

could be another argument for some gifted students being accommodated within special education, not adapted education.

I am not convinced changing from adapted education to universal education will provide better adaptation for gifted students. However, it is impossible to predict exactly how the new education act will function and what changes it will bring to the entire educational system. One thing is certain, though; the new education act provides ample opportunity to make changes for the better for gifted students.

Both students and teachers in my study point to systematic challenges with ability grouping as a form of organizational differentiation. The literature review showed negative attitudes toward ability grouping. Other researchers argue that ability grouping has a minimal effect on students' achievement (e.g., Hattie, 2009). However, ability grouping positively affects gifted students, and flexible grouping based on formative assessment, acceleration, and accounting for prior knowledge and ability has apparent positive effects (Hattie, 2009; Missett et al., 2014). Permanent ability groups are not allowed within the educational system in Norway (apart from students in special schools or permanent groups) (*The Education Act*, § 8-2, 1998). Based on the results derived from both teachers and students in this thesis, it seems that flexible grouping based on ability is not used, although this is permitted. This is not even done in group work, because the gifted students complain about being assigned to mixed-ability groups in which they do "the lion's share" of the work. The official report concludes that flexible grouping is a missed opportunity that schools and teachers should utilize more often (NOU 2016:14, 2016). What changes do we need for schools and teachers to be able to utilize flexible grouping? Do schools need more knowledge about the available resources and possibilities, or do they need knowledge about utilizing these possibilities? My results show that gifted students experience repetition, too slow a pace, unchallenging assignments, and boredom. The educational system is not considering their prior knowledge and abilities and differentiating accordingly.

Acceleration is also a systematic challenge, especially when it becomes self-study for the student. Teachers may have negative attitudes toward acceleration (Bernstein et al., 2020; Laine et al., 2019), often based on the misconception that accelerated gifted students will have social issues in their new class. However, acceleration does not necessarily mean skipping a grade; accelerative practices may include compacting the curriculum or individually accelerated practice (Gagné, 2015). There is a need to investigate how to better utilize accelerated practices within the Norwegian educational system and expand the notion of what acceleration is.

The official report regarding the future of schools in Norway argues for depth learning (NOU 2015:8, 2015). Depth learning is one of the D's that Gagné (2015) discusses as part of the best practice for gifted students. The new curriculum based on this report was published in 2020, so how this change toward depth learning will affect gifted students is not known. However, the report argues for individual progression, which indicates a certain form of individual adaptation. Will the local and national policies follow the intentions in the official report?

When I argue to change the system, I may be a bit strict. Maybe, the system itself is not what we need to change but, rather, how teachers and schools understand and maneuver through the system. There are possibilities for acceleration, differentiation, and flexible grouping within the system. There are some constraints concerning the directorate's limitations on special education and the current interpretation of adapted education. However, there are options for utilizing the system to a higher degree. Time and resources are considered barriers, but are they truly the barriers to a differentiated education? Might one of the barriers be the current understanding of the system as a more strict, limited, and narrow system than it is? This poses the following question: does this thesis provide a new understanding of the educational system in Norway, or is it reproducing our current perceptions? There is no clear answer to the question of how to provide for gifted students within the Norwegian educational system. This issue is complicated and requires that all levels work together. However, I point to some possibilities for change, for example, utilizing

acceleration strategies, providing enrichment opportunities, flexible grouping, and more individualized adaptation for gifted students in Norway.

7. Implications and further research

7.1 Concluding remarks

In this thesis, I set out to explore gifted education in Norway, with the goal of emerging at the other side with a better understanding of how we provide for our gifted students. My conclusion is that teachers are doing what they can within their understanding of the system, although they have some misconceptions (such as that "high ability equals high achievement") and limited knowledge about proper educational practices and possibilities within the system for gifted students. However, because gifted students are not prioritized within special education and adapted education is, first and foremost, considered with a "whole group" approach, there is still much more to do to provide gifted students with an education that is adapted appropriately.

As I conclude this thesis, I must acknowledge that there is still much more to learn about gifted education in Norway. In this chapter, I will present some implications based on the results of this thesis and suggestions for further research.

One implication of this thesis is that there is a need for changes in and within the educational system to better provide for gifted students in Norway. There is a need for more information and knowledge about giftedness, gifted education, and educational strategies such as differentiation and acceleration within teacher education. However, my results are obtained from convenience samples and may not be generalizable across the entire country. I do propose some changes, such as including giftedness within special education or adopting the differentiation paradigm. Still, I cannot conclude, purely based on my results, that these are the changes that will benefit gifted students the most.

7.2 Further research

Does the teacher education provide future teachers with enough knowledge about differentiation and giftedness? The results of this thesis indicate that it does not. The results suggest that teacher education should be changed to include more information on effective educational practices and handling stereotypes and misconceptions concerning giftedness and gifted education. Also, knowledge about how to maneuver through the system is important as well. However, regular teacher education has been changed from a four-year bachelor's degree to a five-year master's degree during the span of this study. Hopefully, this means that some of these changes are included in the new master's degree. This should be investigated in further research.

What this thesis has not considered is, among other equity issues in gifted education in Norway, how do we work toward a gifted education that is inclusive of minority groups? What issues lie within the system for gifted students with other cultural and language backgrounds? Nor has it considered differences between genders. Is it the same to be a gifted boy and a gifted girl in Norway? What differences might there be in this regard, and are there misconceptions and stereotypes about specific genders among Norwegian teachers? Another interesting question would be "what are the special needs of gifted students?" Do gifted students have substantially different needs than other students? Would a gifted and non-gifted sample answer differently on questions regarding their need for adaptation and facilitation in school?

I have included the aspect of power in this thesis; however, there is still more to discuss and explore on this issue. How does power influence education in Norway? What groups are underserved because of issues related to power?

Disruptive behavior was evident in both studies. Almost half of the teachers agreed that gifted students might be disruptive, and the students mentioned how being bored and unchallenged led to disruptive behavior. The results of this thesis cannot reveal how prevalent disruptive behavior is or what kind of disruptive behaviors gifted

students display. This should be investigated in further research, as well as how to mitigate this behavior.

Talent development within various fields would be an exciting study in further research. Why is it easier to talk about talent development in music and sport? Could those in charge of the development of academic talent learn something from talent development in other areas, as well as how to apply these policies within a Norwegian discourse? Is the notion of practice evident in other areas applicable to education and academic talent? As I write this, I am also watching the Olympic Games unfold in Tokyo. In this area, no one debates the necessity of developing the potential of each performer. On the other hand, just some days previously, during the International Mathematical Olympiad, one participant from Norway managed to win the Silver medal, and another the Bronze medal, which I have seen or heard no mention of in Norwegian newspapers (International Mathematical Olympiad, 2021). I must say I find that interesting, a bit sad, but hardly surprising. Why are the attitudes so different toward outstanding academic performance as compared to performance in sports?

Based on the results of this thesis, we see systematic challenges concerning acceleration in education. However, we have no data on the prevalence of acceleration through skipping grades or starting school earlier. Are the accelerated students in Norway pleased with this provision? In what scenarios are students prohibited from accelerative practices? How can we better accommodate those who require subject acceleration?

It would also be interesting to look beyond our borders and combine research from the other Nordic countries. Do these countries have similar barriers for gifted students in education, and if not, what are the differences?

Although this thesis marks the end of my Ph.D. journey, we are still at the starting line of the marathon of gifted education in Norway; there is an almost infinite amount

to learn and investigate further. I am ready to continue investigating and learning much more about gifted education, talent development, and proper interventions for gifted students.

Finally, I want to thank the reader who has followed and read this thesis all the way through. I hope I have managed to convey some of the knowledge I have gained through this study and provided an increased interest in the education of gifted students.

Source of data

Abu-Hamour, B., & Al-Hmouz, H. (2013). A study of gifted high, moderate, and low achievers in their personal characteristics and attitudes toward school and teachers. *International Journal of Special Education*, *28*(3).

Ackerman, C. M. (1997). Identifying gifted adolescents using personality characteristics: Dabrowski's overexcitabilities. *Roeper Review*, *19*(4), 229–236. https://doi.org/10.1080/02783199709553835

Allotey, G. A., Watters, J. J., & King, D. (2020). Ghanaian science and mathematics teachers' beliefs about gifted education strategies. *Gifted Education International*, *36*(3), 250–265. http://dx.doi.org/10.1177/0261429420946732

Ambrose, D. (2021). Interdisciplinary exploration guiding conceptions of giftedness. I R. Sternberg J. & D. Ambrose (Ed.), *Conceptions of Giftedness and Talent* (p. 1–20). Springer International Publishing. https://doi.org/10.1007/978-3-030-56869-6_3

Askildt, A., & Johnsen, B. H. (2012). Spesialpedagogiske røtter og fagets utvikling i Norge. I E. Befring & R. Tangen (Ed.), *Spesialpedagogikk (5th edition)* (Pp. 59–75). Cappelen Damm Akademisk.

Baker, J. A., Bridger, R., & Evans, K. (1998). Models of underachievement among gifted preadolescents: The role of personal, family, and school factors. *Gifted Child Quarterly*, *42*(1), 5–15. https://doi.org/10.1177/001698629804200102

Ball, S. J. (2013). *Foucault, Power and Education.* Routledge/Taylor & Francis Group; US.

Baudson, T. G., & Preckel, F. (2013). Teachers' implicit personality theories about the gifted: An experimental approach. *School Psychology Quarterly*, *28*(1), 37–46. https://doi.org/10.1037/spq0000011

Becker, H. S. (1967). Whose side are we on? *Social Problems*, *14*(3), 239–247. JSTOR. https://doi.org/10.2307/799147

Befring, E. (2012). Spesialpedagogikk: historisk framvekst, ansvarsoppgaver, forståelsesmåter og nye perspektiver. I.E. Befring & R. Tangen (Red.), *Spesialpedagogikk (5th edition)* (Pp. 33–58). Cappelen Damm Akademisk.

Bernstein, B. O., Lubinski, D., & Benbow, C. P. (2020). Academic acceleration in gifted youth and fruitless concerns regarding psychological well-being: A 35-year longitudinal study. *Journal of Educational Psychology*. https://doi.org/10.1037/edu0000500

Betts, G. T., & Neihart, M. (1988). Profiles of the gifted and talented. *Gifted Child Quarterly*, *32*(2), 248–253. https://doi.org/10.1177/001698628803200202

Biesta, G. (2010). Pragmatism and the philosophical foundations of mixed methods research. In A. Tashakkori & C. Teddlie, *SAGE Handbook of Mixed Methods in Social & Behavioral Research* (s. 95–118). SAGE Publications, Inc. https://doi.org/10.4135/9781506335193.n4

Bjorklund, Jr., P. (2019). "Whoa. You Speak Mexican?": Latina/o high school students' sense of belonging in Advanced Placement and honors classes. *Journal of Education for Students Placed at Risk (JESPAR)*, *24*(2), 109–131. https://doi.org/10.1080/10824669.2019.1570202

Blaas, S. (2014). The relationship between social-emotional difficulties and underachievement of gifted students. *Australian Journal of Guidance and Counselling*, *24*(2), 243–255. https://doi.org/10.1017/jgc.2014.1

Borland, J. H. (2021). The trouble with conceptions of giftedness. I R. J. Sternberg & D. Ambrose (Red.), *Conceptions of Giftedness and Talent* (s. 37–49). Springer International Publishing. https://doi.org/10.1007/978-3-030-56869-6_3

Bracken, B. A., & Brown, E. (2006). behavioral identification and assessment of gifted and talented students. *Journal of Psychoeducational Assessment*, *24*(2), 112–122. http://dx.doi.org/10.1177/0734282905285246

Brandišauskienė, A. (2019). 'I am more than my IQ:' Analysis of the experience of a gifted learner. *Gifted Education International*, *35*(3), 201–215. https://doi.org/10.1177/0261429419840648

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brevik, L. M., & Gunnulfsen, A. E. (2016). Differensiert undervisning for høytpresterende elever med stort læringspotensial. *Acta Didactica Norge*, *10*(2), 212–234.

Brevik, L. M., Gunnulfsen, A. E., & Renzulli, J. S. (2018). Student teachers' practice and experience with differentiated instruction for students with higher learning potential. *Teaching and Teacher Education*, *71*, 34–45. https://doi.org/10.1016/j.tate.2017.12.003

Brigandi, C. B., Gilson, C. M., & Miller, M. (2019). Professional development and differentiated instruction in an elementary school pullout program: A gifted education case study. *Journal for the Education of the Gifted*, *42*(4), 362–395. http://dx.doi.org/10.1177/0162353219874418

Brigandi, C. B., Siegle, D., Weiner, J. M., Gubbins, E. J., & Little, C. A. (2016). Gifted secondary school students: The perceived relationship between enrichment and goal valuation. *Journal for the Education of the Gifted*, *39*(4), 263–287. https://doi.org/10.1177/0162353216671837

Buchanan, I. (2010a). Dasein. In *A Dictionary of Critical Theory*. Oxford University Press.

https://www.oxfordreference.com/view/10.1093/acref/9780199532919.001.0001/acref-9780199532919-e-159

Buchanan, I. (2010b). Praxis. In *A Dictionary of Critical Theory*. Oxford University Press. https://www.oxfordreference.com/view/10.1093/acref/9780199532919.001.0001/acref-9780199532919-e-554

Børte, K., Lillejord, S., & Johansson, L. (2016). *Evnerike elever og elever med stort læringspotensial: En forskningsoppsummering*. Kunnskapssenter for utdanning.

Chan, D. W. (2000). Exploring identification procedures of gifted students by teacher ratings: Parent ratings and student self-reports in Hong Kong. *High Ability Studies*, *11*(1), 69–82. https://doi.org/10.1080/713669176

Cosmovici, E. M., Idsoe, T., Bru, E., & Munthe, E. (2009). Perceptions of learning environment and on-task orientation among students reporting different achievement levels: A study conducted among Norwegian secondary school students. *Scandinavian Journal of Educational Research*, *53*(4), 379–396. https://doi.org/10.1080/00313830903043174

Cravens, H. (1992). A scientific project locked in time: The Terman Genetic Studies of Genius, 1920s–1950s. *American Psychologist*, *47*(2), 183. https://doi.org/10.1037/0003-066X.47.2.183

Creswell, J. W. (2015). *A concise introduction to mixed methods research*. SAGE.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory Into Practice*, *39*(3), 124–130. JSTOR.

Cross, T. L. (1997). Guiding and supporting the development of gifted children, Part One. *Gifted Child Today*, *20*(5), 46–49.

https://doi.org/10.1177/107621759702000513

Cross, T. L. (2014). Social emotional needs: The effects of educational malnourishment on the psychological well-being of gifted students. *Gifted Child Today*, *37*(4), 264–265.

Cross, T. L., Adams, C., Dixon, F., & Holland, J. (2004). Psychological characteristics of academically gifted adolescents attending a residential academy: A longitudinal study. *Journal for the Education of the Gifted*, *28*(2), 159–181. http://dx.doi.org/10.1177/016235320402800203

Damsgaard, H. L., & Opsahl, M. (2016). "Det smarteste var å ikke være smart" – evnerike elevers skolelivskvalitet. *Spesialpedagogikk*, *6*. https://utdanningsforskning.no/artikler/2016/det-smarteste-var-a-ikke-vare-smart--evnerike-elevers-skolelivskvalitet/

Dennis, B. (2018). Validity as research praxis: A study of self-reflection and engagement in qualitative inquiry. *Qualitative Inquiry*, *24*(2), 109–118. https://doi.org/10.1177/1077800416686371

Dodillet, S. (2019). Inclusive elite education in Sweden: Insights from implementing excellence programs into an egalitarian school culture. *Scandinavian Journal of Educational Research*, *63*(2), 258–271. https://doi.org/10.1080/00313831.2017.1336480

Dreyfus, H. L., & Wrathall, M. A. (2007). *A Companion to Heidegger*. John Wiley & Sons, Incorporated. http://ebookcentral.proquest.com/lib/bergen-ebooks/detail.action?docID=350875

Eckhoff, N. (2001). *Einskapsskolens historie i Noreg*. Norske Samlaget.

Endepohls-Ulpe, M., & Ruf, H. (2006). Primary school teachers' criteria for the identification of gifted pupils. *High Ability Studies*, *16*(2), 219–228.

https://doi.org/10.1080/13598130600618140

Erdogan, A., & Yemenli, E. (2019). Gifted students' attitudes towards mathematics: A qualitative multidimensional analysis. *Asia Pacific Education Review*, *20*(1), 37–52. https://doi.org/10.1007/s12564-018-9562-5

Finlay, L., & Gough, B. (Red.). (2003). *Reflexivity: A practical guide for researchers in health and social sciences*. Blackwell Science.

Fletcher, A. J. (2017). Applying critical realism in qualitative research: Methodology meets method. *International Journal of Social Research Methodology*, *20*(2), 181–194. https://doi.org/10.1080/13645579.2016.1144401

Francis, R., Hawes, D. J., & Abbott, M. (2015). Intellectual giftedness and psychopathology in children and adolescents: A systematic literature review. *Exceptional Children*, *82*(3), 279–302. https://doi.org/10.1177/0014402915598779

Frantz, R. S., & McClarty, K. L. (2016). Gifted education's reflection of country-specific cultural, political, and economic features. *Gifted and Talented International*, *31*(1), 46–58. https://doi.org/10.1080/15332276.2016.1220794

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report; Fort Lauderdale*, *20*(9), 1408–1416.

Gagné, F. (1995). From giftedness to talent: A developmental model and its impact on the language of the field. *Roeper Review*, *18*(2), 103–111. https://doi.org/10.1080/02783199509553709

Gagné, F. (2004). Transforming gifts into talents: The DMGT as a developmental theory. *High Ability Studies*, *15*(2), 119–147. https://doi.org/1359813042000314682

Gagné, F. (2010). Motivation within the DMGT 2.0 framework. *High Ability Studies*,

21(2), 81–99. https://doi.org/10.1080/13598139.2010.525341

Gagné, F. (2015). Academic talent development programs: A best practices model. *Asia Pacific Education Review*, *16*(2), 281–295. https://doi.org/10.1007/s12564-015-9366-9

Gagné, F. (2018). Attitudes toward gifted education: Retrospective and prospective update. *Psychological Test and Assessment Modeling*, *60*(1), 26.

Gallagher, K. (Red.). (2008). *The methodological dilemma: Creative, critical, and collaborative approaches to qualitative research*. Routledge.

Geake, J. G., & Gross, M. U. M. (2008). Teachers' negative affect toward academically gifted students: An evolutionary psychological study. *Gifted Child Quarterly*, *52*(3), 217–231. https://doi.org/10.1177/0016986208319704

Gómez-Arízaga, M. P., & Conejeros-Solar, M. L. (2013). Am I *That* Talented? The experiences of gifted individuals from diverse educational backgrounds at the postsecondary level. *High Ability Studies*, *24*(2), 135–151. https://doi.org/10.1080/13598139.2013.838898

Gomez-Arizaga, M. P., Valdivia-Lefort, M., Castillo-Hermosilla, H., Hébert, T. P., & Conejeros-Solar, M. L. (2020). Tales from within: Gifted students' lived experiences with teaching practices in regular classrooms. *Education Sciences*, *10*(5), 137. https://doi.org/10.3390/educsci10050137

Gorard, S. (2001). *Quantitative methods in educational research: The role of numbers made easy*. Continuum.

Greene, J. C., & Hall, J. N. (2010). Dialectics and pragmatism: Being of consequence. In A. Tashakkori & C. Teddlie, *SAGE Handbook of Mixed Methods in Social & Behavioral Research* (s. 119–144). SAGE Publications, Inc. https://doi.org/10.4135/9781506335193.n5

Guenole, F., Louis, J., Creveuil, C., Baleyte, J. M., Montlahuc, C., Fourneret, P., & Revol, O. (2013). Behavioral profiles of clinically referred children with intellectual giftedness. *Biomed Research International*, 7. https://doi.org/10.1155/2013/540153

Guenole, F., Speranza, M., Louis, J., Fourneret, P., Revol, O., & Baleyte, J. M. (2015). Wechsler profiles in referred children with intellectual giftedness: Associations with trait-anxiety, emotional dysregulation, and heterogeneity of Piaget-like reasoning processes. *European Journal of Paediatric Neurology*, *19*(4), 402–410. https://doi.org/10.1016/j.ejpn.2015.03.006

Guthrie, K. H. (2020). The weight of expectations: A thematic narrative of gifted adolescent girls' reflections of being gifted. *Roeper Review*, *42*(1), 25–37. https://doi.org/10.1080/02783193.2019.1690080

Gutting, G. (2005). *Foucault: A Very Short Introduction*. Oxford University Press.

Hattie, J. (2009). *Visible Learning. A Synthesis of over 800 Meta-Analyses Relating to Achievement*. Routledge

Haug, P. (2020a). Tilpassa opplæring. In M. H. Olsen & P. Haug (Red.), *Tilpasset opplæring*. Cappelen Damm akademisk.

Haug, P. (2020b). 'It is impossible to avoid policy' comment on Mel Ainscow: Promoting inclusion and equity in education: lessons from international experiences. *Nordic Journal of Studies in Educational Policy*, *6*(1). http://dx.doi.org/10.1080/20020317.2020.1730092

Haug, P. (2022). Ideal og realitet i spesialundervisninga. I H. Ø. Thuen, S. Myklestad, & S. Vik (Red.), *Pedagogikkens idé og oppdrag*. Fagbokforlaget Open Access. https://oa.fagbokforlaget.no/index.php/vboa/catalog/view/20/28/253

Hausstätter, R. S. (2012). Grenseoppgangen mellom tilpasset opplæring og

spesialundervisning. In R. S. Hausstätter (Red.), *Inkluderende spesialundervisning*. Fagbokforlaget.

Hebert, T. P. (2001). “If I had a new notebook, I know things would change”: Bright underachieving young men in urban classrooms. *Gifted Child Quarterly*, *45*(3), 174–194. http://dx.doi.org/10.1177/001698620104500303

Henson, R. K. (2010). Use of factor analysis techniques in the study of giftedness. In B. Thompson, and R. F. Subotnik (Red.), *Methodologies for conducting research on giftedness.* American Psychological Association

Hernández-Torrano, D., Prieto, M. D., Ferrándiz, C., Bermejo, R., & Sáinz, M. (2013). Characteristics leading teachers to nominate secondary students as gifted in Spain. *Gifted Child Quarterly*, *57*(3), 181–196. https://doi.org/10.1177/0016986213490197

Hernández-Torrano, D., & Tursunbayeva, X. (2016). Are teachers biased when nominating students for gifted services? Evidence from Kazakhstan. *High Ability Studies*, *27*(2), 165–177. https://doi.org/10.1080/13598139.2015.1108187

Hesse-Biber, S. (2010). Qualitative approaches to mixed methods practice. *Qualitative Inquiry*, *16*(6), 455–468. https://doi.org/10.1177/1077800410364611

Heyder, A., Bergold, S., & Steinmayr, R. (2018). Teachers’ knowledge about intellectual giftedness: A first look at levels and correlates. *Psychology Learning & Teaching*, *17*(1), 27–44. https://doi.org/10.1177/1475725717725493

Heyder, A., Südkamp, A., & Steinmayr, R. (2020). How are teachers’ attitudes toward inclusion related to the social-emotional school experiences of students with and without special educational needs? *Learning and Individual*

Differences, *77*, 101776. https://doi.org/10.1016/j.lindif.2019.101776

Hofseth, A. (1970). *Evnerike barn i skolen*. Universitetsforlaget.

Hommerstad, M. (2018). «Lærerløft» anno 1814. *Norsk pedagogisk tidsskrift*, *102*(02), 101–113. https://doi.org/10.18261/issn.1504-2987-2018-02-02

Hunsaker, S. L. (1994). Creativity as a characteristic of giftedness: Teachers see it, then they don't. *Roeper Review*, *17*(1), 11–15. https://doi.org/10.1080/02783199409553610

Høigård, E., & Ruge, H. (1963). *Den norske skoles historie* (2. utg.). J. W. Cappelens Forlag A.S.

Idsøe, E. C. (2014). *Elever med akademisk talent i skolen*. Cappelen Damm AS.

Idsøe, E. C., & Skogen, K. (2021). Spesialpedagogikk for barn med stort læringspotensial. In E. Befring, K.-A. B. Næss, & R. Tangen (Red.), *Spesialpedagogikk* (6. utg., s. 570–586). Cappelen Damm AS.

International Mathematical Olympiad. (2021). *62nd IMO 2021 Individual results. http://imo-official.org/year_individual_r.aspx?year=2021*

Jang, E. E., McDougall, D. E., Pollon, D., Herbert, M., & Russell, P. (2008). Integrative mixed methods data analytic strategies in research on school success in challenging circumstances. *Journal of Mixed Methods Research*, *2*(3), 221–247. https://doi.org/10.1177/1558689808315323

Jenssen, E., & Lillejord, S. (2010). Hvorfor tilpasset opplæring er så vanskelig. *Bedre skole*, *2*. https://utdanningsforskning.no/artikler/2010/hvorfor-tilpasset-opplaring-er-sa-vanskelig2/

Johnson, R. B. (2017). Dialectical pluralism: A metaparadigm whose time has come. *Journal of Mixed Methods Research*, *11*(2), 156–173.

https://doi.org/10.1177/1558689815607692

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher; Washington*, *33*(7), 14–26.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, *1*(2), 112–133. https://doi.org/10.1177/1558689806298224

Kaya, F. (2015). Teachers' conceptions of giftedness and special needs of gifted students. *Egitim ve Bilim*, *40*(177).

Kaya, N. G. (2019). Determination of attitudes and opinions of classroom teachers about education of gifted students. *Egitim ve Bilim*, *44*(199).

Knutsen, B. (2016). Høytpresterende elevers opplevelse av naturfagundervisning i prestasjonslike elevgrupper på ungdomstrinnet. *Nordisk tidsskrift for pedagogikk og kritikk*, *2*(1). https://doi.org/10.17585/ntpk.v2.162

Knudsmoen, H. & Simonsen, E. (2016). Why Michel Foucault in Norwegian Special-Education Research? *Nordic Journal of Social Research 7*(2016). https://utdanningsforskning.no/artikler/2016/why-michel-foucault-in-norwegian-special-education-research/

Kvale, S. & Brinkmann, S. (2015). *Det kvalitative forskningsintervju.* Gyldendal Akademisk.

Kvam, V. (2016). *Jakten på den gode skole: Utdanningshistorie for lærere*. Universitetsforlaget.

Laine, S., Hotulainen, R., & Tirri, K. (2019). Finnish elementary school teachers' attitudes toward gifted education. *Roeper Review*, *41*(2), 76–87. http://dx.doi.org/10.1080/02783193.2019.1592794

Laine, S., Kuusisto, E., & Tirri, K. (2016). Finnish teachers conceptions of

giftedness. *Journal for the Education of the Gifted*, *39*(2), 151–167. https://doi.org/10.1177/0162353216640936

Laine, S., & Tirri, K. (2016). How Finnish elementary school teachers meet the needs of their gifted students. *High Ability Studies*, *27*(2), 149–164. https://doi.org/10.1080/13598139.2015.1108185

Lavrijsen, J., & Verschueren, K. (2020). Student characteristics affecting the recognition of high cognitive ability by teachers and peers. *Learning and Individual Differences*, *78*, 101820. https://doi.org/10.1016/j.lindif.2019.101820

Leavy, P. (2015). Introduction. In P. Leavy (ed) *The Oxford Handbook of Qualitative Research* (Pp 1-13). New York: Oxford University Press.

Lee, L. (1999). Teachers' conceptions of gifted and talented young children. *High Ability Studies*, *10*(2), 183–196. https://doi.org/10.1080/1359813990100205

Lee, S.-Y., Olszewski-Kubilius, P., & Thomson, D. T. (2012). Academically gifted students' perceived interpersonal competence and peer relationships. *Gifted Child Quarterly*, *56*(2), 90–104. https://doi.org/10.1177/0016986212442568

Lie, B. (2014). *Eksepsjonelle og dobbelteksepsjonelle elever: Begavede elever og begavede elever med lærevansker*. Cappelen Damm akademisk.

Matheis, S., Keller, L. K., Kronborg, L., Schmitt, M., & Preckel, F. (2020). Do stereotypes strike twice? Giftedness and gender stereotypes in pre-service teachers' beliefs about student characteristics in Australia. *Asia - Pacific Journal of Teacher Education*, *48*(2), 213–232. http://dx.doi.org/10.1080/1359866X.2019.1576029

Matheis, S., Schmitt, M., Preckel, F., (2017). Threat or challenge? teacher beliefs about gifted students and their relationship to teacher motivation. *Gifted and*

Talented International, *32*(2), 134–160. http://dx.doi.org/10.1080/15332276.2018.1537685

Megay-Nespoli, K. (2001). Beliefs and attitudes of novice teachers regarding instruction of academically talented learners. *Roeper Review*, *23*(3), 178–182. https://doi.org/10.1080/02783190109554092

Mellroth, E. (2021). Teachers' views on teaching highly able pupils in a heterogeneous mathematics classroom. *Scandinavian Journal of Educational Research*, *65*(3), 481–499. https://doi.org/10.1080/00313831.2020.1716065

Mellroth, E., van Bommel, J., & Liljekvist, Y. (2019). Elementary teachers on orchestrating teaching for mathematically highly able pupils. *The Mathematics Enthusiast*, *16*(1–3), 127–153.

Merriam-Webster. (n.d.). "*Equity" and "Equality" – how they differ and overlap.* https://www.merriam-webster.com/words-at-play/equality-vs-equity-difference

Miedijensky, S. (2018). Learning environment for the gifted—What do outstanding teachers of the gifted think? *Gifted Education International*, *34*(3), 222–244. https://doi.org/10.1177/0261429417754204

Miller, E. M. (2009). The effect of training in gifted education on elementary classroom teachers' theory-based reasoning about the concept of giftedness. *Journal for the Education of the Gifted*, *33*(1), 65–105. https://doi.org/10.1177/016235320903300104

Ministry of Education and Research. (1997). *St.meld. Nr 23 (1997-98) Om opplæring for barn, unge og vaksne med særskilde behov.*

Ministry of Education and Research. (2016, februar 11). *Talentsentre for høyt presterende elever* [Pressemelding]. Regjeringen.no; regjeringen.no.

https://www.regjeringen.no/no/aktuelt/ny-tiltaksplan-for-realfag/id2475132/

Ministry of Education and Research (2019). *Meld. St. 6 (2019-2020) Tett på—Tidlig innsats og inkluderende felleskap i barnehage, skole og SFO*. https://www.regjeringen.no/contentassets/3dacd48f7c94401ebefc91549a5d08cd/no/pdfs/stm201920200006000dddpdfs.pdf

Missett, T. C., Brunner, M. M., Callahan, C. M., Moon, T. R., & Azano, A. P. (2014). Exploring teacher beliefs and use of acceleration, ability grouping, and formative assessment. *Journal for the Education of the Gifted*, *37*(3), 245–268.

Mjøs, M., Lied, S. I., & Flaten, K. (2020). Spesialpedaogikkens rolle—I et utdanningspolitisk perspektiv. I B. I. B. Hvidsten, I. Kuginyte-Arlaskiene, & G. Söderlund (Red.), *Tilpasset opplæring og spesialpedagogikk i teori og praksis*.

Mogensen, A. (2011). The proficiency challenge: An action research program on teaching of gifted math students in grades 1-9. *The Mathematics Enthusiast*, *8*(1), 207–226.

Moon, T. R., & Brighton, C. M. (2008). Primary teachers' conceptions of giftedness. *Journal for the Education of the Gifted*, *31*(4), 447–480. https://doi.org/10.4219/jeg-2008-793

Mönks, F. J., & Katzko, M. W. (2005). Giftedness and gifted education. In R. J. Sternberg & J. E. Davidson (Red.), *Conceptions of Giftedness* (2. Utg.). Cambridge University Press.

Mönks, F. J., & Pflüger, R. (2005). *Gifted Education in 21 European Countries: Inventory and Perspective* (s. 172). Radboud University Nijmegen. https://www.giftedforyou.eu/plovdiv-guide/17.pdf

Neuendorf, K. A. (2017). *The Content Analysis Guidebook*. SAGE Publications, Inc. https://doi.org/10.4135/9781071802878

Neumeister, K. L. S., Adams, C. M., Pierce, R. L., Cassady, J. C., & Dixon, F. A. (2007). Fourth-grade teachers' perceptions of giftedness: Implications for identifying and serving diverse gifted students. *Journal for the Education of the Gifted*, *30*(4), 479–499. https://doi.org/10.4219/jeg-2007-503

Nordahl, T. Et al., (2018). *Inkluderende fellesskap for barn og unge*. Fagbokforl.

Norwegian Directorate of Education and Training (n.d. a) *Overordnet del – verdier og prinsipper for grunnopplæringen*. Retrieved 8. october 2021, from https://www.udir.no/lk20/overordnet-del/

Norwegian Directorate of Education and Training (n.d. b). *Grunnskole*. Retrieved 24. february 2021, from https://www.udir.no/tall-og-forskning/finn-forskning/tema/utdanningsspeilet-2020/del-1/grunnskole/

Norwegian Directorate of Education and Training. (2014). *Veilederen Spesialundervisning*. https://www.udir.no/laring-og-trivsel/sarskilte-behov/spesialundervisning/Spesialundervisning/

Norwegian Directorate of Education and Training. (2021). *Tilpasset opplæring*. https://www.udir.no/laring-og-trivsel/tilpasset-opplaring/

NOU 2015: 8. (2015). *Fremtidens skole: Fornyelse av fag og kompetanser*. Ministry of Education and Research.

NOU 2016: 14. (2016). *Mer å hente. Bedre læring for elever med stort læringspotensial*. Ministry of Education and Research. https://www.regjeringen.no/no/dokumenter/nou-2016-14/id2511246/

NOU 2019: 23. (2019) *Ny opplæringslov*. Ministry of Education and Research. https://www.regjeringen.no/contentassets/3a08b44df1e347619e32db47d13ac0

cd/no/pdfs/nou201920190023000dddpdfs.pdf

Olsen, M. H. (2020). Tilpasset opplæring når elever har stort læringspotensial. I M. H. Olsen & P. Haug (Red.), *Tilpasset opplæring*. Cappelen Damm akademisk.

Pallant, J. (2016). *SPSS Survival Manual.* 6th Edition. New York: Open University Press.

Parliamentary Assembly Council of Europe. (1994). *Doc 7140. Report on education for gifted children.* https://assembly.coe.int/nw/xml/XRef/X2H-Xref-ViewHTML.asp?FileID= 8142&lang=EN

Persson, R. S. (1998). Paragons of virtue: Teachers' conceptual understanding of high ability in an egalitarian school system. *High Ability Studies*, *9*(2), 181–196. https://doi.org/10.1080/1359813980090204

Persson, R. S. (2010). Experiences of intellectually gifted students in an egalitarian and inclusive educational system: A survey study: *Journal for the Education of the Gifted*. https://doi.org/10.1177/016235321003300405

Peterson, J., Duncan, N., & Canady, K. (2009). A longitudinal study of negative life events, stress, and school experiences of gifted youth. *Gifted Child Quarterly*, *53*(1), 34–49. https://doi.org/10.1177/0016986208326553

Peterson, J. S., & Ray, K. E. (2006). Bullying and the gifted: Victims, perpetrators, prevalence, and effects. *Gifted Child Quarterly*, *50*(2), 148–168.

Polyzopoulou, K., Kokaridas, D., Patsiaouras, A., & Gari, A. (2014). Teachers' perceptions toward education of gifted children in Greek educational settings. *Journal of Physical Education and Sport*, *14*(2), 211–221.

Popkewitz, T., & Brennan, M. (1998). Restructuring of social and political theory in education: Foucault and a social epistomology of school practices. In T. Popkewitz & M. Brennan (Red.), *Foucault's Challenge: Discourse, Knowledge, and Power in Education.* Teachers College Press; US.

Preckel, F., Baudson, T. G., Krolak-Schwerdt, S., & Glock, S. (2015). Gifted and maladjusted? Implicit attitudes and automatic associations related to gifted children. *American Educational Research Journal*, *52*(6), 1160–1184. https://doi.org/10.3102/0002831215596413

Rasmussen, A., & Lingard, B. (2018). Excellence in education policies: Catering to the needs of gifted and talented or those of self-interest?: *European Educational Research Journal*. https://doi.org/10.1177/1474904118771466

Reid, E., & Boettger, H. (2015). Gifted education in various countries of Europe. *Slavonic Pedagogical Studies Journal*, *4*, 158– 171. https://doi.org/10.18355/PG.2015.4.2.158-171

Rencher, A. C., & Christensen, W. F., (2012) *Methods of Multivariate Analysis*. John Wiley and Sons, Inc.

Renzulli, J. S. (2012). Reexamining the role of gifted education and talent development for the 21st century. *Gifted Child Quarterly*, *56*(3), 150–159. https://doi.org/10.1177/0016986212444901

Renzulli, J. S., & Renzulli, S. R. (2010). The schoolwide enrichment model: A focus on student strengths and interests. *Gifted Education International*, *26*(2–3), 140–156. https://doi.org/10.1177/026142941002600303

Rizza, M. G., & Morrison, W. F. (2003). Uncovering stereotypes and identifying characteristics of gifted students and students with emotional/behavioral disabilities. *Roeper Review*, *25*(2), 73–77. https://doi.org/10.1080/02783190309554202

Rohrer, J. C. (1995). Primary teacher conceptions of giftedness: Image, evidence, and nonevidence. *Talents and Gifts*, *18*(3), 269–283. https://doi.org/10.1177/016235329501800304

Russell, J. L. (2018). High school teachers' perceptions of giftedness, gifted education, and talent development. *Journal of Advanced Academics*, *29*(4), 275–303. http://dx.doi.org/10.1177/1932202X18775658

Sak, U. (2021). The fuzzy conception of giftedness. In R. J. Sternberg & D. Ambrose (Red.), *Conceptions of Giftedness and Talent* (s. 371–392). Springer International Publishing. https://doi.org/10.1007/978-3-030-56869-6_21

Samardzija, N., & Peterson, J. S. (2015). Learning and classroom preferences of gifted eighth graders: A qualitative study. *Journal for the Education of the Gifted*, *38*(3), 233–256. https://doi.org/10.1177/0162353215592498

Sánchez-Escobedo, P. A., Valdés-Cuervo, A. A., Contreras-Olivera, G. A., García-Vázquez, F. I., & Durón-Ramos, M. F. (2020). Mexican teachers' knowledge about gifted children: Relation to teacher teaching experience and training. *Sustainability*, *12*(11), 4474. http://dx.doi.org/10.3390/su12114474

Sattler, J. M. (2020). *Assessment of children: Cognitive foundations and applications*.

Schmitt, C., & Goebel, V. (2015). Experiences of high-ability high school students: A case study. *Journal for the Education of the Gifted*, *38*(4), 428– 446. https://doi.org/10.1177/0162353215607325

Schwandt, T. (1998). Constructivist, interpretivist approaches to human inquiry. In N. K. Denzin & Y. S. Lincoln (Red.), *The Landscape of Qualitative Research: Theories and Issues* (s. 221–259). Sage Publications.

Sewell, C. J. P., & Goings, R. B. (2019). Navigating the gifted bubble: Black adults reflecting on their transition experiences in NYC gifted programs. *Roeper Review*, *41*(1), 20–34. https://doi.org/10.1080/02783193.2018.1553218

Shaywitz, S. E., Holahan, J. M., Freudenheim, D. A., Fletcher, J. M., Makuch, R. W., & Shaywitz, B. A. (2001). Heterogeneity within the gifted: Higher IQ boys

exhibit behaviors resembling boys with learning disabilities. *Gifted Child Quarterly*, *45*(1), 16–23. http://dx.doi.org/10.1177/001698620104500103

Siegle, D., & Powell, T. (2004). Exploring teacher biases when nominating students for gifted programs. *Gifted Child Quarterly*, *48*(1), 21–29. https://doi.org/10.1177/001698620404800103

Silver, C. & Lewins, A. F. (2015) Computer-assisted analysis of qualitative research. In P. Leavy (Ed.), *The Oxford Handbook of Qualitative Research* (pp. 606–638). Oxford University Press.

Simonsen, E. (2022). Hva skal man med spesialpedagogikken? I H. Ø. Thuen, S. Myklestad, & S. Vik (Red.), *Pedagogikkens idé og oppdrag*. Fagbokforlaget Open Access.

https://oa.fagbokforlaget.no/index.php/vboa/catalog/view/20/28/250

Smedsrud, J. (2018). Mathematically gifted accelerated students participating in an ability group: A qualitative interview study. *Frontiers in Psychology*, *9*, 1359. https://doi.org/10.3389/fpsyg.2018.01359

Smedsrud, J., Nordahl-Hansen, A., Idsøe, E. C., Ulvund, S. E., Idsøe, T., & Lang-Ree, O. C. (2018). The association between math achievement and percieved relationship in school among high intelligent versus average adolescents. *Scandinavian Journal of Educational Research, 63*(7). https://doi.org/10.1080/00313831.2018.1476406

Smedsrud, J., & Skogen, K. (2016). *Evnerike elever og tilpasset opplæring*. Fagbokforlaget.

Steenbergen-Hu, S., Makel, M. C., & Olszewski-Kubilius, P. (2016). What one hundred years of research says about the effects of ability grouping and acceleration on K–12 students' academic achievement: Findings of two

second-order meta-analyses. *Review of Educational Research*. https://doi.org/10.3102/0034654316675417

Sternberg, R. J., & Ambrose, D. (Red.). (2021). *Conceptions of Giftedness and Talent*. Springer International Publishing. https://doi.org/10.1007/978-3-030-56869-6

Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2011). Rethinking giftedness and gifted education: A proposed direction forward based on psychological science. *Psychological Science in the Public Interest*, *12*(1), 3–54. https://doi.org/10.1177/1529100611418056

Tangen, R. (2012). Retten til utdanning for alle. In E. Befring & R. Tangen (Ed.), *Spesialpedagogikk (5th edition)* (Pp. 108–128). Cappelen Damm Akademisk.

Terman, L. (Red.). (1926). *Genetic Studies of Genius: Vol. I* (2. utg.). Standford University Press.

The Education Act. (1998). Lov om grunnskolen og den vidaregåande opplæringa (LOV-1998- 07-17-61). https://lovdata.no/dokument/NL/lov/1998-07-17-61

The Equality and Discrimination Act. (2017). Lov om likestilling og forbud mot diskriminering (LOV-2017-06-16-51). https://lovdata.no/dokument/NL/lov/2017-06-16-51

Thuen, H. (2017). *Den norske skolen: Utdanningssystemets historie*. Abstrakt forlag AS.

Timulak, L. (2015). Inroduction to research methodology. In A. Vossler & N. Moller (Red.), *The Counselling and Psychotherapy Research Handbook* (s. 74–87).

Tirri, K., & Kuusisto, E. (2013). How Finland Serves Gifted and Talented Pupils: *Journal for the Education of the Gifted*. https://doi.org/10.1177/0162353212468066

Traianou, A. (2015). The centrality of ethics in qualitative research. In P. Leavy (Ed.), *The Oxford handbook of qualitative research* (pp. 62–77). Oxford University Press.

UNESCO. (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. United Nations Educational, Scientific and Cultural Organization. https://www.right-to-education.org/sites/right-to-education.org/files/resource-attachments/Salamanca_Statement_1994.pdf

VanTassel-Baska, J., & Hubbard, G. F. (2016). Classroom-based strategies for advanced learners in rural settings. *Journal of Advanced Academics*, *27*(4), 285–310. https://doi.org/10.1177/1932202X16657645

Vik, S., & Hausstätter, R. (2014). Fra «early intervention» til tidlig innsats. *Spesialpedagogikk*, *6*. https://utdanningsforskning.no/artikler/2014/fra-early-intervention-til-tidlig-innsats/

Volckmar, N. (2016). *Utdanningshistorie: Grunnskolen som samfunnsintegrerende institusjon* (N. Volckmar, Red.; 1. utgave, 1. opplag). Gyldendal.

Wechsler, D. (2003). *WISC-IV technical and interpretive manual*. Pearson Assessment.

Wechsler, D. (2009). *WISC-IV norsk versjon manual del 1*. (Heldal, L. & Haukeland, E., Trans). Pearson Assessment.

Wendelborg, C., & Caspersen, J. (2016). *Høyt presterende elevers vurdering av læringsmiljøet* (Mangfold og inkludering, s. 44). NTNU Samfunnsforskning AS.

Teachers' perspective on extraordinary learning potential in Norway: A descriptive study with primary and secondary teachers.

In countries with no clear policy regarding gifted students, teachers are vital. Norway is such a case. Teachers might have stereotypical views and need knowledge about gifted students to appropriately facilitate them. This article aims to give descriptive insights into teachers' views and perceptions of students with extraordinary learning potential (gifted) in Norway. To examine this, we used a survey of primary and secondary school teachers ($N = 339$), exploring teachers' self-evaluated need for knowledge, how teachers evaluate different characteristics, and the teachers' open-ended descriptions. We also report descriptive statistics from the survey. The results indicate that the Norwegian teachers wanted more knowledge about gifted students; they reported positive characteristics like performing well and being hardworking and intelligent but also being bored and, to some degree, displaying disruptive behavior. Here, 74% of the teachers reported they had experiences with teaching gifted students. One implication is including giftedness as a topic in teacher education. Our study points to important areas for further research—for example, more in-depth research with Norwegian teachers on their view and characterization of gifted students.

Keywords: gifted identification; teachers; high ability; student characteristics

Introduction

Teachers are essential in gifted education. As Tirri (2017) stated, "Teachers are the key agents in identifying and nurturing all kinds of talent" (p. 211). Internationally, a lot of research has supported the needs of gifted students but has shown differences across educational systems and that teachers are not always providing the necessary support and facilitation (Renzulli, 2012; Sekowski & Łubianka, 2015; Walsh & Jolly, 2018). If gifted students are not provided for, they may develop socioemotional difficulties, negative attitudes toward school, and even drop out (Subotnik et al., 2011). Many policy-level strategies can help teachers identify gifted students, and policy does matter by providing structure and guidance (Gubbins et al., 2021; Haug, 2020b; Hodges et al., 2021). Unfortunately, not all countries or municipalities have

policies regarding gifted students. In these situations, the teacher becomes even more critical in identifying their students' needs. What happens when there are no national policies to help teachers, and how do teachers view gifted students and their educational needs? The current article illustrates this by exploring teachers' views on education for students with extraordinary learning potential in Norway through a descriptive survey. In the survey, we used the term extraordinary learning potential; the present article will use both extraordinary learning potential and gifted students.

The Case of Norway

In the current article, we focus on compulsory education, which, in Norway, consists of primary education from first to seventh grade and lower secondary education from eighth to tenth grade (*The Norwegian Education Mirror*, 2019).

Gifted students are considered a new field of interest in Norwegian educational research. A research summary has pointed to the need for more research about Norwegian teachers in education for gifted students (Børte et al., 2016), and Norway published its first official report on education for gifted students in 2016 (NOU 2016: 14, 2016), establishing the new terms *high learning potential* and *extraordinary learning potential.* The report stated that giftedness is not essential in Norwegian teacher education and that Norway has no clear uniform policy regarding gifted students. The educational policies in Norway focus on inclusive and adapted education for all students (*The Education Act,* 1998). Accordingly, gifted students also need facilitation to enhance their potential (NOU 2016:14, 2016).

If giftedness was not a topic teachers learned about during their teacher education, then teachers might lack knowledge about identification and facilitation in adapting their instruction to the needs of gifted students. Teachers may utilize different types of identification methods through assessment, such as ability tests, rating scales, or performance-based assessments (Cao et al., 2017). In Europe, the most widely used criteria for

identification are aptitude tests or performance tests (Sękowski & Łubianka, 2015). However, ability tests are rarely used in Norway, and there are no rating scales (NOU 2016: 14, 2016).

High learning potential is estimated to constitute 10–15% of the student population, while extraordinary learning potential comprises 2–5% (NOU 2016:14, 2016). In Norway, there are currently around 636,000 students in compulsory education, and the student-to-teacher ratio is approximately 16 (*The Norwegian Education Mirror,* 2019). If 5% of the student population has extraordinary learning potential, that constitutes 31,800 students, so each teacher should statistically have one gifted student at any given time.

Teachers in Norway must follow the principle of adapted education and equitable education (*The Education Act*, 1998, §§ 1-1, 1-3), which requires differentiation according to a student's needs and predispositions. However, this principle is not an individual legal right (Haug, 2020a; National Directorate of Education and Training [NDET], 2021). The national requirements for teacher education define adapted education as variation through different assignments, material, intensity, organization, teaching aids, and methods. Teachers must adapt the instruction according to the diversity in their classes (Ministry of Education and Research, 2010).

Students who do not have a satisfactory yield from ordinary education have the right to special education (*The Education Act,* 1998, § 5-1). However, according to the NDET, gifted students are not covered by the right to special education. They have a satisfactory yield and should receive adaptation within ordinary education (NDET, 2014).

A qualitative study with focus group interviews of 322 preservice teachers in Norway found that the teachers acknowledge the need to differentiate students with high learning potential. However, teachers found it hard to design and conduct differentiated instruction (Brevik et al., 2018; Brevik & Gunnulfsen, 2016).

Nordic research on gifted students and giftedness

In a qualitative Swedish study, Mellroth (2021) analyzed the discussions of 12 teachers in a professional development program. Mellroth found that the teachers were prepared to teach their highly able students in mathematics by providing differentiation and challenging assignments. The teachers also had the competence to recognize these students. On the other hand, in a quantitative survey, Persson found that gifted adults ($N = 287$) retrospectively saw Swedish schools as hostile and unsatisfactory (Persson, 2010). As in Sweden, gifted students in Norway are in regular classrooms, not in any special programs; hence, the general teacher needs knowledge about giftedness, potential, detection, provisions, and the dynamic relationship between potential, support, and motivation (Mattsson & Bengmark, 2011).

Laine (2010) studied the Finnish public discussion of giftedness, finding a diversity of conceptions. Laine further asked if this diversity could influence how gifted children are identified in school and whether those participating in the public discussion discuss the same phenomenon. In Norway, new terminology has been established (high and extraordinary learning potential). However, it might be unclear what this terminology means and how to identify these students.

Teachers' characterization of gifted students

When identifying gifted students, teachers in Norway must rely on their knowledge of giftedness, different characteristics, and performance assessment. However, teachers can be stereotypical in their characterization of gifted students and value excellence, potential, rarity, behavior, and innate ability (Lee, 1999; Rizza & Morrison, 2003). Gender biases may also influence characterization; some research has found evidence that girls are less frequently nominated for gifted programs (Endepohls-Ulpe & Ruf, 2006; Hernández-Torrano et al.,

2013). Level of experience and teacher training have been found to influence teachers' responses (Rizza & Morrison, 2003).

Persson (1998) studied Swedish teachers' ($N = 232$) conceptualizations of giftedness, finding that teachers failed to understand the social-emotional aspect of giftedness, instead focusing on the ideal student, the "paragon of virtue". Students characterized as such act as leaders, never give up, are inspiring, and act as teacher assistants when the need arises (Persson, 1998). This is not an image of all gifted students, and it is important to recognize that gifted students might underachieve and not perform according to their potential or the expectations of their teachers (Reis & McCoach, 2000). As Smedsrud (2018) stated, there is a misconception that gifted students must be high achieving. Mattson found that Swedish headteachers ($N = 34$) emphasized creative ability, logical ability, and motivation in the conception of gifted students in mathematics (Mattsson, 2010). Norwegian preservice teachers have characterized students with high learning potential as a heterogenic group with requirements regarding subject knowledge and cognitive and socioemotional needs (Brevik et al., 2018).

Finnish teachers have characterized gifted students using cognitive, creative, and motivational features (Laine et al., 2016). A Spanish study found that the teachers nominated students with high scores in verbal and numerical areas for gifted programs, choosing students who exceled in social intelligence, showing that they were more likely to nominate a student displaying positive behavior than one with disruptive behavior (Hernández-Torrano et al., 2013).

The literature indicates that extraordinary learning potential or giftedness is a new topic in educational research in Norway. Teachers in Norway are required to adapt education according to the diversity in their classes. Previous research has found that Norwegian teachers find it difficult to differentiate their instruction for gifted students (Brevik et al.,

2018; Brevik & Gunnulfsen, 2016). Teachers require knowledge about gifted students and characteristics to help identify their students' needs; however, they might have different biases.

Aims of the study

The current article aims to provide insight into how teachers perceive education for students with extraordinary learning potential in Norway, here by using descriptive data from primary and secondary school teachers. We sought to explore where teachers reported gaining knowledge, their self-evaluated need for knowledge about giftedness, and how they evaluated different characteristics. We were also interested in how many teacher-identified students there were in our selection because this is a new term and an understudied topic in Norwegian educational research. The following research questions guided the present article:

1. Where do Norwegian teachers report that they have gained knowledge about gifted, and how do they self-evaluate their need for knowledge?
    a. How do the background variables of years of experience, experience with gifted students, and education level correlate with teachers' self-evaluated need for knowledge?
2. How do Norwegian teachers evaluate the different characteristics of gifted students, and how do they describe the characteristics of gifted students?

The rationale for the current study is twofold. There is a gap in the Norwegian research literature regarding teachers and giftedness (Børte et al., 2016). Teachers are also the most crucial factor in Norwegian compulsory education for providing gifted students with the differentiation they need (Smedsrud et al., 2018; Tirri, 2017). The current study was a prerequisite for developing an interview guide for a qualitative interview study and identifying possible research gaps for further research.

Because extraordinary learning potential is a new term in Norway and might be unclear to teachers, we used the following definition in the survey: *Students with extraordinary learning potential are those students with a strong need and potential in academic subjects like mathematics, reading/writing/language, science, technology, social sciences, or creative/esthetic subjects and who can transform their potential to talent only if their needs are met in a rich and responding learning environment* (Idsøe, 2014, p. 14, our translation). This definition also defines giftedness and gifted students. We did not focus on one subject area but instead on gifted students in all subjects.

Materials and Methods

Participants

In total, $N = 339$ teachers in Norway participated in a web-based survey. We recruited the participants in two cycles. The first sample consisted of $n = 144$ participants from a national inquiry of all combined grade 1 to 10 schools in Norway. Only 32 schools answered and sent the survey to their teachers, with a total response rate of 20%. After the first cycle, we contacted municipalities and received replies from one in Eastern Norway and one in Western Norway. The one in the east provided 18 participants, and the one in the west provided $n = 177$, with a response rate of 63%. The total sample is considered a convenience sample (Gorard, 2001), so we cannot generalize the findings to all Norwegian 1–10 teachers.

Pilot

We conducted a pilot test with 48 teachers to evaluate the survey questions. The pilot participants answered the survey and gave feedback on the questions. After the pilot, we made some minor changes, such as changing the wording and formatting. We did not include the informants from the pilot in the final survey.

Instrument

We collected data using a web-based survey provided by SurveyMonkey (www.surveymonkey.com). We designed the survey specifically for the current study, with 25 questions split into five different areas: (1) background questions, (2) questions on teachers' self-evaluated need for knowledge of gifted students and where teachers have received knowledge, (3) identification and characteristics of gifted students, (4) adaptation or differentiation of education, and (5) experience with gifted students. The survey consisted of dichotomous questions, Likert-scale questions, and open-ended questions. We developed the survey from the literature on gifted education, for example, on differentiation (Gagné, 2015; VanTassel-Baska & Hubbard, 2016), on characteristics (Ackerman, 1997; Betts & Neihart, 1988; Cross, 2002; Idsøe, 2014; Lee, 1999; Lie, 2014), and other relevant literature (Renzulli, 2012; Shaywitz et al., 2001; Subotnik et al., 2011) but with a Norwegian scope.

The "characteristics of giftedness" scale consisted of 15 different characteristics that the teachers agreed or disagreed with on a five-item Likert scale. We developed the different characteristics from the Norwegian expert literature concerning cognitive and socioemotional characteristics and differences between high-achieving and gifted students (Idsøe, 2014; Idsøe & Skogen, 2011; Lie, 2014). The scale has been simplified, hence not representing all possible characteristics. We focused on the characteristics developed from the Norwegian literature. Preservice teachers have been shown to use cognitive and socioemotional characteristics when describing students with high learning potential (Brevik & Gunnulfsen, 2016). We ended up with the 15 characteristics representing various cognitive and socioemotional aspects, in line with previous research in Norway (Brevik & Gunnulfsen, 2016; Idsøe, 2014; Idsøe & Skogen, 2011; Lie, 2014). The open-ended question, where teachers could write what they believed characterizes gifted students, mitigated some limitations with the limited scale.

Analyses

Descriptive frequencies and bivariate analyses were primarily used to establish any significant correlation with background variables. We analyzed the internal consistency of the scale "characteristics of giftedness" using Cronbach's α. We used the open-ended questions as a supplement to the other survey data. We used quantitative content analysis to analyze the open-ended questions regarding teachers' descriptions and where teachers have gained knowledge about gifted students (Neuendorf, 2017). See Table 1 for an example of the content analysis. Table 4 provides all the codes and frequencies. We performed all statistical computations using SPSS 25.

Table 1

Coding Example

Quote	Unit	Code
Ability to reflect, see contexts, and understand subjects on a much higher level than their age	Ability to reflect, see context, and understand on a higher level	Intellect
peers. Learning is substantially faster than the average student.	Learning is faster	Learn fast
Large inner drive and motivation for acquiring new knowledge.	Large inner drive and motivation for acquiring new knowledge	Motivation Joy of learning

Ethical considerations

The Norwegian Center for Research Data (NSD) approved this study. To answer the survey, all participants had to read the information letter at the beginning of the survey. The information letter stated that participation was voluntary and that no personal information

would be collected for identification. By answering the survey, the participants completed an informed act of consent.

Results

The teachers were from different parts of Norway and teach first to tenth grades. Two-thirds identified as female (n = 261). According to the teachers' self-evaluation, almost half (44%) believed they currently had students with extraordinary learning potential. More than 7 out of 10 (74%) believed they had experience teaching these students. The participants had a mean experience of 14 years (*SD*: 10.5). For other descriptive results, see Table 2.

Table 2

Descriptive Statistics

	N	%
Total	**339**	**100**
National survey	144	43
Eastern municipality	18	5
Western municipality	177	52
Gender		
Female	261	77
Male	78	23
Education		
Bachelor (4 years)	138	41
Bachelor (4 +1 year)	139	41
Master (5 years)	8	2
Master (5 +1 year)	18	5
Other	36	11
Teaching level		
Primary school	213	63
Secondary school	85	25
Across all grades	37	11
Administration	4	1
Public school	310	91
Private school	29	9
School size		
<100 students	68	20
100–199 students	85	25
200–399 students	142	42
>400 students	44	13
Contact teacher		
Yes	187	55
No	152	45

We have organized this section according to the research questions. First, *Where do Norwegian teachers report they have gained knowledge about extraordinary learning potential, and how do they self-evaluate their need for more knowledge?*

The teachers answered an open-ended question about where they had received knowledge or information about gifted students. This question was open ended because we did not want to limit the teachers to our predispositions, and it allowed the teachers to elaborate. The quantitative content analysis generated eight categories: experience (44%), education (27%), literature (18%), no knowledge (14 %), media (13 %), courses (6 %), parents/student themselves (5%), and other (3%). Fourteen percent claimed they did not know about giftedness and gifted students. Further, even though almost a third mentioned their teacher education, the teachers also reported that they did not see it as a vital part.

Because teachers must adapt or differentiate education for all students, it is necessary to know if they used differentiation and if the educational system would allow for differentiation. Nine out of ten teachers agreed that they differentiated, and eight out of ten agreed that there was space for differentiated instruction in Norwegian schools.

Further, the questionnaire asked the teachers to what degree they agreed (Likert scale 1–5) that they needed more knowledge about gifted students and adaptation. Nine out of ten teachers said they needed more knowledge and information in this area. To investigate a possible relationship between the background variables (research question 1a), we performed a Pearson correlation between experience measured in years and the question, "To what degree do you agree or disagree that you need more knowledge about gifted students?" The correlation was significant, with a small negative correlation $r = -.11$ ($p = .05$), indicating that the more experienced teachers were less in agreement with the statement that they needed more knowledge about gifted students. However, because the correlation was small, whether it should be further interpreted is unclear. The other background variables had no significant correlations.

The second research question was, *How do Norwegian teachers evaluate different characteristics of gifted students, and how do they describe gifted students?*

We analyzed the "characteristics of giftedness" scale and looked at the teachers' descriptions to answer this question. All answers were on a five-item Likert scale. A total of 288 respondents answered the questions. See Table 3 for the descriptive results. We tested the scale's internal consistency using Cronbach's α, which gave a result of .75. This result was adequate (Pallant, 2016) but indicated that some items needed further clarification. The internal consistency indicated that the characteristics in the scale were related to each other; however, we analyzed them separately to determine which characteristics the teachers agreed with most.

Table 3

Frequencies on Characteristics of Gifted

	Totally agree (1) %	Somewhat agree (2) %	Neither agrees nor disagrees (3) %	Somewhat disagree (4) %	Totally disagree (5) %	Mean	*SD*
1. Performs well at school	43.2	39.0	14.0	3.2	0.6	1.79	0.85
2. Disruptive	3.6	44.7	33.1	11.6	7.0	2.74	0.96
3. Unsocial	2.6	21.1	47.0	17.8	11.5	3.14	0.97
4. Creative	19.6	39.5	33.3	6.5	1.0	2.30	0.90
5. Energetic	12.7	37.6	44.1	4.9	0.7	2.43	0.80
6. Diligent	19.9	37.6	31.4	10.8	0.3	2.34	0.93
7. Inquisitive	36.8	41.8	17.8	3.6	0	1.88	0.82
8. Quiet	4.9	23.0	56.1	13.8	2.3	2.86	0.80
9. Irritating	2.7	15.4	39.1	16.1	26.8	3.49	1.12
10. Extroverted	5.0	25.2	59.8	9.6	0.3	2.75	0.71
11. Social	7.9	28.1	50.7	12.9	0.3	2.70	0.81
12. Show an advanced language	28.6	45.7	22.0	3.0	0.7	2.01	0.83
13. Know-it-all	8.3	37.6	35.6	10.9	7.6	2.72	1.02
14. Willing to learn	35.8	40.1	19.5	4.6	0	1.93	0.86
15. Introverted	1.3	15.3	65.4	11.6	6.3	3.06	0.76

The teachers mostly agreed on the positive characteristics; eight out of ten agreed that gifted students performed well and were inquisitive. Three out of four agreed that gifted students were willing to learn and showed an advanced language. The teachers were more diverse in terms of the students' negative characteristics. Two out of ten agreed that gifted students can be irritating, while almost half (46%) agreed that they might be "know-it-alls" and that they might show disruptive behavior (48%).

The survey asked the teachers to describe gifted students using an open-ended question (n = 268). The quantitative content analysis developed 19 different codes (see Table 4). There were differences in the teachers' answers; some were long and detailed, and some were relatively short. The maximum number of codes was 9, the minimum was 1, and the mean was 2.93. The codes were related to cognitive traits in the student such as intelligence, creativity, and curiosity or behavior in school, such as hardworking, motivated, and problematic behavior. Some (10%) teachers mentioned that gifted students were diverse, making it difficult to sum it up in a few sentences.

Table 4

Characteristics Developed from the Teachers' Descriptions (*n* = 268)

Character trait	*N*	%
Cognitive attributes		
Intellect	91	34
Need individual adaptation	79	30
Subject knowledge	63	24
Different	53	20
Learn fast	50	19
Joy of learning	47	18
Curious	17	6
Creative	10	4
Behavior in school		
Boredom	84	31
Problematic behavior	52	19
Perform well in school	39	15
Motivated	33	12
Hardworking	28	10
Fast	28	10
Diverse group	28	10
Independent	25	9
Challenging	25	9
Active	19	7
Underachiever	13	5

Note: Max codes 9, min 1. Mean 2.93. *SD* 1.43

Because statistically speaking, each teacher should have one student at any time with extraordinary learning potential, we were interested in how many teacher-identified gifted students there were in our material. Three out of four teachers reported that they had experience with gifted students. Approximately each teacher has had six gifted students (the total reported number was 1,253 from 214 teachers, M 5.94), averaging out to three girls and three boys. Those who had gifted students (44%) at the time of taking the survey reported two gifted students each, one boy and one girl. We performed paired samples t-tests to evaluate the gender difference for reported boys (M 1.42, SD 1.20) and girls (M 1.34, SD 1.36; $t(91) = 1.82$, $p = .41$, two-tailed), which was insignificant (total boys M 3.64, SD 3.65; total girls M 3.24, SD 3.95; $t(164) = 1.81$, $p = .07$, two-tailed).

Discussion

Norwegian teachers have been almost unanimous in their request for more knowledge about gifted students in our study. Mostly, the teachers have gained knowledge through their own experiences, and they did not report teacher education as an essential part. Tirri (2017) stated that teachers are key agents in developing talent. Furthermore, teacher education is the key to producing teachers with proper knowledge about students with extraordinary learning potential and how to facilitate them appropriately. Teachers need knowledge about different characteristics, tools for identification, adaptation in school, and differentiation. However, our results show that 14% of the teachers reported having no knowledge about gifted students. Almost 90% said they needed more knowledge. According to Norwegian official report (2016: 14, 2016), giftedness is not essential in teacher education. We also saw the same tendency in our results. Mellroth (2021) found that the teachers they interviewed stated a duty to acquire

knowledge about gifted students and the duty and right to disseminate their knowledge to other teachers. In line with this, there seems to be a need to include giftedness as a course in Norwegian teacher education (Brevik et al., 2018). Teacher education should provide teachers with the necessary knowledge to identify gifted students and provide for them in school.

Experience with gifted students

Statistically speaking, each teacher should have around one gifted student at any given time. However, only 44% of the teachers in our study reported they currently had one or more gifted students, and 74% reported they have had a gifted student during their career. This result might indicate that some gifted students were not recognized as gifted by their teachers because of limited knowledge or a more limited conception of giftedness. This result might also be a consequence of a lack of consensus regarding what constitutes extraordinary learning potential and the lack of uniform policies in Norway (NOU 2016:14, 2016; Smedsrud, 2020).

Characterization of gifted students

The Norwegian teachers characterized gifted students mainly in a positive light. The characteristics they agreed most with were "performs well at school" (82%), "inquisitive" (79%), and "willing to learn" (76%). In their open-ended descriptions, the most used characteristics were "intellect" (34%), "boredom" (31%), "need for individual adaptation" (30%), and high "subject knowledge" (24%). As so, Norwegian teachers primarily identified gifted students as intelligent, high achievers, curious but bored, and needing individual adaptation. This result is in line with previous studies from Sweden (Mattsson, 2010; Persson, 1998) Australia (Lee, 1999), the USA (Rizza & Morrison, 2003), and Finland (Laine et al., 2016).

The student characterized by the teachers seems to be the golden student every teacher wants. This student is willing to learn, intelligent, diligent and hardworking, learns fast, and performs well. One problem is that this is not always the case. There is no absolute relationship between extraordinary learning potential and school achievement; gifted students might underachieve (Betts & Neihart, 1988; Rubenstein et al., 2012; Subotnik et al., 2011). In our study, the Norwegian teachers thought about a gifted student as mainly a high-achieving student. We saw this when looking at the frequencies, primarily of "performs well" and "diligent." When combining "totally agree" and "somewhat agree," 82% of the teachers agreed on the characteristic of performs well, and 58% agreed on diligence. These results indicate that the teachers focused on results, meaning underachievers might go unnoticed. If teachers do not recognize that gifted students might underachieve, these students could potentially lose out on beneficial interventions and facilitation in school (Reis & McCoach, 2000).

Disruptive behavior

An interesting result is that 48% of the teachers agreed on the disruptive characteristic, and in their descriptions, 19% described problematic behavior. It seems disruptive or problematic behavior is something that many of the teachers were experiencing. This result goes against other research, for example, a Spanish study indicating that teachers nominated students with positive behavior, not disruptive behavior (Hernández-Torrano et al., 2013).

Limitations of the study

Because the response rate was so low in the national sample, we feared that those teachers who initially answered the survey were only those interested in the field, which might give skewed results. Gorard (2001) mentioned how using only those volunteering

to participate in a survey can bias a study. This bias was less of an issue in the second sample. The first author traveled to the schools that participated, and the teachers answered the survey during their working hours.

Although the current study obtained answers from teachers from the entire country, more than half of the teachers were from the same area, limiting the generalizability of the study. There was also missing data because not all teachers answered all the questions, especially the open-ended questions. However, we received answers from two-thirds of the teachers to the open-ended questions. Overall, the current study has provided valuable insights into teachers' views on gifted education in Norway.

Implications and further research

Teachers are essential for how gifted students develop their potential (Gagné, 1995; Renzulli & Renzulli, 2010). To manage the (maybe impossible) requirement of meeting every student's learning needs, teachers need to know what characterizes different types of gifted students and how they can differentiate their teaching. According to the results of our study, the teachers wanted and needed more knowledge about giftedness and gifted students. They displayed a mostly positive view of gifted students and characterized them as intelligent, performing well in school but bored, and, to some degree, displaying disruptive behavior. Even though each teacher statistically should have one gifted student at any given time, only 44% of the teachers believed they currently had gifted students. This result might indicate that some gifted students go unnoticed in Norway. It seems that giftedness should be considered a topic of higher value in Norwegian teacher education.

Because this was a relatively small study, there is a need for more in-depth research on this phenomenon in the Norwegian context. Areas for further research could be more in-depth research with teachers on their views, characterization, and conceptualization of giftedness or gifted students. Because the terminology and conception regarding giftedness are vague, it is crucial to investigate how teachers conceptualize this phenomenon.

Further research should explore how Norwegian teachers adapt and differentiate their instruction for gifted students. It is necessary to investigate differentiation because there are some established best practices (Gagné, 2015), but Norway has no mandate regarding proper adaptation other than the overarching principle of adapted education for all students (Haug, 2020a; Olsen, 2020).

Acknowledgments

We thank the teachers who participated for their time and valuable input. We thank Ole Johan Eikeland for his technical help with the survey design.

References

Ackerman, C. M. (1997). Identifying gifted adolescents using personality characteristics: Dabrowski's overexcitabilities. *Roeper Review*, *19*(4), 229–236. https://doi.org/10.1080/02783199709553835

Betts, G. T., & Neihart, M. (1988). Profiles of the gifted and talented. *Gifted Child Quarterly*, *32*(2), 248–253. https://doi.org/10.1177/001698628803200202

Børte, K., Lillejord, S., & Johansson, L. (2016). *Evnerike elever og elever med stort læringspotensial: En forskningsoppsummering*. Kunnskapssenter for utdanning

Brevik, L. M., & Gunnulfsen, A. E. (2016). Differensiert undervisning for høytpresterende elever med stort læringspotensial. *Acta Didactica Norge*, *10*(2), 212–234.

Brevik, L. M., Gunnulfsen, A. E., & Renzulli, J. S. (2018). Student teachers' practice and experience with differentiated instruction for students with higher learning potential. *Teaching and Teacher Education*, *71*, 34–45. https://doi.org/10.1016/j.tate.2017.12.003

Cao, T. H., Jung, J. Y., & Lee, J. (2017). Assessment in gifted education: A review of the literature from 2005 to 2016. *Journal of Advanced Academics, 28*(3), 163-203. http://dx.doi.org/10.1177/1932202X17714572

Cross, T. L. (2002). Competing with myths about the social and emotional development of gifted students. *Gifted Child Today*, *25*(3), 44–45.

Endepohls-Ulpe, M. & Ruf, H. (2006). Primary school teachers' criteria for the identification of gifted pupils. *High Ability Studies, 16*(2), 219-228. https://doi.org/10.1080/13598130600618140

Gagné, F. (1995). From giftedness to talent: A developmental model and its impact on the language of the field. *Roeper Review*, *18*(2), 103–111. https://doi.org/10.1080/02783199509553709

Gagné, F. (2015). Academic talent development programs: A best practices model. *Asia Pacific Education Review*, *16*(2), 281–295. https://doi.org/10.1007/s12564-015-9366-9

Gorard, S. (2001). *Quantitative methods in educational research: The role of numbers made easy*. Continuum.

Gubbins, E. J., Siegle, D., Ottone-Cross, K., McCoach, D. B., Langley, S. D., Callahan, C. M., Brodersen, A. V., & Caughey, M. (2021). Identifying and serving gifted and talented students: Are identification and services connected? *Gifted Child Quarterly*, *65*(2), 115–131. https://doi.org/10.1177/0016986220988308

Haug, P. (2020a). Tilpassa opplæring. In M. H. Olsen & P. Haug (Eds.), *Tilpasset opplæring*. Cappelen Damm akademisk.

Haug, P. (2020b). 'It is impossible to avoid policy' comment on Mel Ainscow: Promoting inclusion and equity in education: Lessons from international experiences. *Nordic Journal of Studies in Educational Policy*, *6*(1). http://dx.doi.org/10.1080/20020317.2020.1730092

Hernández-Torrano, D., Prieto, M. D., Ferrándiz, C., Bermejo, R., & Sáinz, M. (2013). Characteristics leading teachers to nominate secondary students as gifted in Spain. *Gifted Child Quarterly*, *57*(3), 181–196. https://doi.org/10.1177/0016986213490197

Hodges, J., Mun, R. U., Jones Roberson, J., & Flemister, C. "Tedd." (2021). Educator perceptions following changes in gifted education policy: Implications for

serving gifted students. *Gifted Child Quarterly*, *65*(4), 338–353. https://doi.org/10.1177/00169862211023796

Idsøe, E. C. (2014). *Elever med akademisk talent i skolen*. Cappelen Damm AS.

Idsøe, E. C., & Skogen, K. (2011). *Våre evnerike barn en utfordring for skolen*. Høyskoleforlaget.

Laine, S. (2010). The Finnish public discussion of giftedness and gifted children. *High Ability Studies*, *21*(1), 63–76. https://doi.org/10.1080/13598139.2010.488092

Laine, S., Kuusisto, E., & Tirri, K. (2016). Finnish teachers conceptions of giftedness. *Journal for the Education of the Gifted*, *39*(2), 151–167. https://doi.org/10.1177/0162353216640936

Lee, L. (1999). Teachers' conceptions of gifted and talented young children. *High Ability Studies*, *10*(2), 183–196. https://doi.org/10.1080/1359813990100205

Lie, B. (2014). *Eksepsjonelle og dobbelteksepsjonelle elever: Begavede elever og begavede elever med lærevansker*. Cappelen Damm akademisk.

Mattsson, L. (2010). Head teacher's conception of gifted students in mathematics in Swedish upper secondary school. *Nordic Studies in Mathematics Education*, *15*(3), 3–22.

Mattsson, L., & Bengmark, S. (2011). On track to gifted education in mathematics in Sweden. In B. Sriraman & K. H. Lee (Eds.), *The elements of creativity and giftedness in mathematics* (pp. 81–101). Sense Publishers. https://doi.org/10.1007/978-94-6091-439-3_6

Mellroth, E. (2021). Teachers' views on teaching highly able pupils in a heterogeneous mathematics classroom. *Scandinavian Journal of Educational Research*, *65*(3), 481–499. https://doi.org/10.1080/00313831.2020.1716065

Ministry of Education and Research. (2010). *Nasjonale retningslinjer for grunnskolelærerutdanningen 5.-10. trinn. https://www.regjeringen.no/globalassets/upload/kd/rundskriv/2010/retningslinjer_grunnskolelaererutdanningen_5_10_trinn.pdf*

Norwegian Directorate of Education and Training [NDET]. (2014). *Veilederen Spesialundervisning*. https://www.udir.no/laring-og-trivsel/sarskilte-behov/spesialundervisning/Spesialundervisning/

Norwegian Directorate of Education and Training [NDET]. (2021). *Tilpasset opplæring*. https://www.udir.no/laring-og-trivsel/tilpasset-opplaring/

Neuendorf, K. A. (2017). *The content analysis guidebook*. SAGE Publications, Inc. https://doi.org/10.4135/9781071802878

NOU 2016:14. (2016). *Mer å hente. Bedre læring for elever med stort læringspotensial*. Kunnskapsdepartementet. https://www.regjeringen.no/no/dokumenter/nou-2016-14/id2511246/

Olsen, M. H. (2020). Tilpasset opplæring når elever har stort læringspotensial. In M. H. Olsen & P. Haug (Eds.), *Tilpasset opplæring*. Cappelen Damm akademisk.

Persson, R. S. (1998). Paragons of virtue: Teachers' conceptual understanding of high ability in an egalitarian school system. *High Ability Studies*, *9*(2), 181–196. https://doi.org/10.1080/1359813980090204

Persson, R. S. (2010). Experiences of intellectually gifted students in an egalitarian and inclusive educational system: A survey study. *Journal for the Education of the Gifted*, *33*(4) https://doi.org/10.1177/016235321003300405

Reis, S. M., & McCoach, D. (2000). The underachievement of gifted students: What do we know and where do we go? *Gifted Child Quarterly*, *44*(3), 152–170. http://dx.doi.org/10.1177/001698620004400302

Renzulli, J. S. (2012). Examining the role of gifted education and talent development for the 21st century: A four-part theoretical approach. *Gifted Child Quarterly*, *56*(3), 10.

Renzulli, J. S., & Renzulli, S. R. (2010). The schoolwide enrichment model: A focus on student strengths and interests. *Gifted Education International*, *26*(2–3), 140–156. https://doi.org/10.1177/026142941002600303

Rizza, M. G., & Morrison, W. F. (2003). Uncovering stereotypes and identifying characteristics of gifted students and students with emotional/behavioral disabilities. *Roeper Review*, *25*(2), 73–77. https://doi.org/10.1080/02783190309554202

Rubenstein, L. D., Siegle, D., Reis, S. M., McCoach, D. B., & Burton, M. G. (2012). A complex quest: The development and research of underachievement interventions for gifted students. *Psychology in the Schools*, *49*(7), 678–694. https://doi.org/10.1002/pits.21620

Sekowski, A., & Łubianka, B. (2015). Education of gifted students in Europe. *Gifted Education International*, *31*(1), 73-90. https://doi.org/10.1177/0261429413486579

Shaywitz, S. E., Holahan, J. M., Freudenheim, D. A., Fletcher, J. M., Makuch, R. W., & Shaywitz, B. A. (2001). Heterogeneity within the gifted: Higher IQ boys exhibit behaviors resembling boys with learning disabilities. *Gifted Child Quarterly*, *45*(1), 16–23. http://dx.doi.org/10.1177/001698620104500103

Smedsrud, J. (2020). Explaining the variations of definitions in gifted education. *Nordic Studies in Education*, *40*(1), 79–97. https://doi.org/10.23865/nse.v40.2129

Smedsrud, J. (2018). Forsering og akselerasjon for evnerike elever: Det dårligste av de beste alternativene. *Psykologi i kommunen, 3*(2018), 5-9.

Smedsrud, J., Nordahl-Hansen, A., Idsøe, E. C., Ulvund, S. E., Idsøe, T., & Lang-Ree, O. C. (2018). The association between math achievement and perceived relationship in school among high intelligent versus average adolescents. *Scandinavian Journal of Educational Research, 63*(7). https://doi.org/10.1080/00313831.2018.1476406

Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2011). Rethinking giftedness and gifted education: A proposed direction forward based on psychological science. *Psychological Science in the Public Interest*, *12*(1), 3–54. https://doi.org/10.1177/1529100611418056

The Norwegian Education Mirror, 2019. (n.d.). The Norwegian Directorate of Education and Training. https://www.udir.no/in-english/education-mirror-2019/

Tirri, K. (2017). Teacher education is the key to changing the identification and teaching of the gifted. *Roeper Review*, *39*(3), 210–212. https://doi.org/10.1080/02783193.2017.1318996

VanTassel-Baska, J., & Hubbard, G. F. (2016). Classroom-based strategies for advanced learners in rural settings. *Journal of Advanced Academics*, *27*(4), 285–310. https://doi.org/10.1177/1932202X16657645

Walsh, R. L., & Jolly, J. L. (2018). Gifted education in the Australian context. *Gifted Child Today*, *41*(2), 81–88. https://doi.org/10.1177/1076217517750702

Nordic
STUDIES IN EDUCATION

Article | Peer-reviewed | Vol. 41, No. 3, 2021, pp. 219–238

"We Want to Be Educated!" A Thematic Analysis of Gifted Students' Views on Education in Norway

Astrid Lenvik
Department of Education, University of Bergen, Norway
Contact corresponding author: Astrid.Lenvik@uib.no

Elisabeth Hesjedal
Department of Education, University of Bergen, Norway

Lise Øen Jones
Department of Psychosocial Science, University of Bergen, Norway

ABSTRACT
Norwegian educational policy focuses on inclusive, equivalent, and adapted education for all. We followed procedures for an inductive thematic approach to explore the educational experiences of seventeen gifted students (age twelve – fifteen). The inductive thematic analysis revealed three key themes: the educational system, the joy of learning, and problematic issues concerning school and learning. Our results are discussed in light of educational policy and Gagné's Differentiated Model of Giftedness and Talent, and indicate that the Norwegian educational system does not meet these gifted students' needs at either the individual or systemic levels. This study is vital for gaining a better understanding of the Norwegian perspective as well as the wider Nordic setting.

Keywords: *gifted education, primary school, secondary school, inductive thematic analysis, educational policy*

Being a gifted student in a heterogeneous class is not necessarily an easy task. International research has shown that gifted students who are not part of a gifted program may develop issues related to behavior, drop out of school, or just give up on education and school altogether (J. R. Cross & T. L. Cross, 2015; T. L. Cross et al., 2014; Subotnik et al.,

Manuscript received: 30.09.2020. Manuscript accepted: 08.02.2021.

 ISSN 1891-5949, **https://noredstudies.org**

Citation: Lenvik, A., Hesjedal, E. & Jones, L. Ø. (2021). "We want to be educated!" A thematic analysis of gifted students' views on education in Norway. *Nordic Studies in Education*, 41(3), 219–238. https://doi.org/10.23865/nse.v41.2621

2011). Gifted students report feelings of otherness from their peers, apathy for school, that school is an obligation or "prison," a need for sufficient challenges and differentiation, and the importance of their teacher (Borovay et al., 2019; Brandišauskienė, 2019; Gomez-Arizaga et al., 2020; McGrath, 2019; Samardzija & Peterson, 2015; Smith & Goebel, 2015; Yavuz et al., 2016). This inductive qualitative study aims to explore the educational experiences of seventeen gifted students in Norwegian secondary schools. The gifted students report on their secondary school education and retrospectively on their primary school education.

Educational provisions for gifted students

There are three primary educational provisions for gifted students: segregation, acceleration, and inclusion (Rasmussen & Lingard, 2018). Segregation and acceleration involve identifying gifted students and providing for them in segregated or accelerated classes. Acceleration can also entail skipping grades or entering comprehensive school earlier than peers.

Acceleration is often viewed as harmful to the students' psychological and social well-being, both by teachers and parents (Bernstein et al., 2020; Dare & Nowicki, 2019; Steenbergen-Hu et al., 2016). However, a longitudinal study of educational acceleration concluded that acceleration did not negatively affect psychological well-being (Bernstein et al., 2020). Gifted students benefit from grouping within the class, across grades in particular subjects, and by unique grouping for gifted students (Steenbergen-Hu et al., 2016). Acceleration has a positive, moderate, and significant impact on student academic achievement, and accelerated students outperform their non-accelerated same-age peers (Steenbergen-Hu et al., 2016).

Inclusive provisions for gifted students are approaches within the same-age classroom involving differentiation and enrichment strategies (Rasmussen & Lingard, 2018; VanTassel-Baska & Hubbard, 2016). Differentiation may involve the inclusion of advanced content from higher grade levels, critical thinking and problem-solving skills, projects and problem-based learning (Betts, 2004; VanTassel-Baska & Hubbard, 2016). Gifted students prefer more demanding work and accelerated subjects with older students, and enrichment activities that are active, inquisitive, open-ended, and varied, as well as tailored to different learning styles (Borovay et al., 2019; Gomez-Arizaga et al., 2020; McGrath, 2019; Samardzija & Peterson, 2015).

Teachers may have negative attitudes towards giftedness and gifted education; including, for example, the idea that gifted students do not need educational provisions, or that the acceleration or segregation of gifted students is harmful. If teachers have knowledge and training about giftedness and gifted education, they are more likely to meet gifted students' educational needs (Geake & Gross, 2008). Students prefer engaging, professional, and competent teachers who have reasonable control in their classroom (Samardzija & Peterson, 2015; Smith & Goebel, 2015).

Nordic research on gifted education

According to several comparison studies, there is not much information to be found about gifted education in the Nordic countries (Frantz & McClarty, 2016; Mönks & Pflüger, 2005; Reid & Boettger, 2015).

Finland has a highly developed educational system, which educates all children according to their individual needs. However, some Finnish teachers have a fixed ability mindset, and teachers need more knowledge about giftedness's social-emotional aspects (Tirri & Kuusisto, 2013). There are opportunities for acceleration through earlier entry to comprehensive school and enrichment and extra-curricular activities like summer camps or talent classes in Finland, Denmark, and Sweden (Dodillet, 2019; Rasmussen & Lingard, 2018; Tirri & Kuusisto, 2013). Gifted Swedish adults regard their education as unsatisfactory, with primary school being the least satisfying (Persson, 2010).

Wendelborg and Caspersen (2016) found that high achievers in Norway report less teacher support, not enough challenges, lack of relevance, and a higher degree of bullying (Wendelborg & Caspersen, 2016). Smedsrud (2018) found in his interview study of eleven Norwegian accelerated math students that they did not receive sufficient challenges, especially in early primary school.

Gifted education in Norway

Norway bases its educational system on equity, inclusion, and adaption to the different abilities and aptitudes of students; an ideology based on the UN Convention on the Rights of the Child and the Salamanca Statement (Ministry of Children and Families, 1991; *The Education Act*, 1998, § 1-1, § 1-3; UNESCO, 1994). Norwegian students also have the right to be involved in and influence their education (*The Education Act*, 1998). If ordinary education does not cover students' needs, they should receive special education (*The Education Act*, 1998, § 5-1). Adapted education covers both ordinary education and special education (Nordahl et al., 2018).

In 2016, an official investigation concluded that three main systematic realizations were needed to better provide for students with high learning potential (gifted) (NOU 2016: 14, 2016). Primary and secondary education is not adapted enough to realize gifted students' learning potential. Schools are not utilizing the possibilities for pedagogical and organizational differentiation. The educational system needs a joint knowledge base (NOU 2016: 14, 2016, p. 8).

Gifted education can be a part of special education, and receive special education stature (Mönks & Pflüger, 2005; Parliamentary Assembly Council of Europe, 1994). However, Norway reserves special education for students with, e.g., learning difficulties, and the Norwegian Directorate of Education and Training (NDET) concludes that students with high learning potential have a satisfactory yield within ordinary adapted education (NDET, 2014). Adapted education covers ordinary and special education; in special education, adaptation is considered an individual right, while adaptation in

ordinary education is supposed to be achieved through variation and modification according to students' diverse needs (NDET, 2020).

Educational provisions for gifted students in Norway include acceleration through early entry to comprehensive school and skipping grades later, and single subject acceleration (NOU 2016:14, 2016). Teachers can use enrichment strategies through adapted education and differentiation, but we have little knowledge about the enrichment and differentiation these students get in Norway (Børte et al., 2016).

Theories on giftedness and development

There are several definitions and theories regarding giftedness and development. In this article, we will refer to three different theories: the three-ring conception of giftedness (Renzulli, 2012), the Multifactor Model of Giftedness (MMG) (Mönks & Katzko, 2005), and the Differentiated Model of Giftedness and Talent (DMGT) (Gagné, 1995, 2004, 2010).

The three-ring conception of giftedness model displays three interactive clusters: above-average ability, task commitment, and creativity (Renzulli, 2012). These traits represent the main dimensions for creative productivity, and it is the interaction between these traits that creates fruitful conditions for a creative, productive process (Renzulli, 2012). Above average ability can be both general intellectual ability and a specific ability like, e.g., music. Task commitment is a focused or refined form of motivation, and creativity includes traits like curiosity, originality, and a willingness to challenge convention and tradition (Renzulli, 2012). The Multifactor Model of Giftedness combines these traits with support from the main environmental components: peers, family, and school (Mönks & Katzko, 2005). The MMG emphasizes that giftedness can only develop in a fruitful interaction with the environmental dimension.

According to Gagné (2010), giftedness is the possession of natural abilities or aptitudes that are untrained, spontaneously expressed, and considered outstanding. In Gagné's (2010) model, he emphasizes three catalysts, the intrapersonal, the environment, and chance. Through a developmental process, the natural abilities (gifts) develop into a systematically developed skill (talent). The catalysts will influence the developmental process and might promote or hinder development. The intrapersonal catalyst includes traits like physical characteristics, motivation, and personality. The environmental catalyst represents the milieu or environment with significant persons, provisions, and significant events (Gagné, 2004, 2010). Chance influences both the intrapersonal catalyst, the environmental catalyst, and the developmental process itself. While it is possible to reduce some amount of chance, for example through the provision of a high standard of education for all students in all regions of a country, there will still be elements of chance that influence a child's development.

Current study

In this study, we aim to explore gifted education in Norway. The main research question is, "*How do Norwegian gifted secondary school students experience their education*?"

There are few studies on gifted education in Norway, and it is crucial to explore this phenomenon from the perspective of those experiencing it. How do gifted students experience the educational provisions they get? Are their experiences different between primary and secondary school? How do these students relate to their teachers, and what kind of teachers do these students prefer?

This study will focus on the environmental catalyst in the DMGT, the environmental dimensions in the MMG, and the intellectual domain, which is the most familiar domain attributed to giftedness (Subotnik et al., 2011).

Method

This article draws on a qualitative study (Braun & Clarke, 2006) with data from personal (face to face) semi-structured interviews (Brinkmann, 2015) with seventeen gifted students in Norwegian secondary schools, conducted by the first author during the spring of 2018. The inductive thematic analysis was driven by the data content, with the research question as a guide (Braun et al., 2015). The interview duration ranged from sixteen minutes to one hour and twenty minutes. The total amount of data consists of 303 pages of transcript (Times New Roman, size 12, line spacing 1.5).

Interview Guide

We developed the semi-structured interview guide from the research question "How do Norwegian gifted secondary school students experience school?" as well as previous research in the field (Kvale & Brinkmann, 2015). We also did a quantitative survey with teachers before the interviews, which yielded some topics like facilitation and teachers' recognition of talent. We did a pilot interview before the data collection, which prompted some changes in wording. The main topics were experiences and strategies in school, adapted education, family and friends, underachievement, social-emotional issues, and involvement in their education.

The informants

Participants in this study are seventeen students between twelve and fifteen years (mean age fourteen) attending secondary school in Norway. Eleven participants are male, and six are female. The selection is a convenience sample (Gorard, 2001). There is an overweight of one gender, but we have not considered gender differences in this study.

We recruited the informants in the study by contacting "Happy Children," a network for parents of gifted kids in Norway. We utilized social media, contacted all secondary schools in our home municipality, and reached out to a talent center in Math and Science. Inclusion criteria in this study was nomination by a teacher or parent, and a score of 95th percentile or above on at least one subscale in WISC-IV, Verbal Comprehension (VC), Perceptual Reasoning (PR), Working Memory (WM), or Processing Speed (PS). The first author tested thirteen of the participants; the remaining four had

been tested previously. The informants in this study are gifted more specifically in the VC, which means that they are exceptionally talented in language, reading, writing, or PR, which means they have talents with logical fluid reasoning and visual-spatial skills. Some had a homogenous profile with high scores in all domains, while others scored substantially better on VC or PR.

Analysis

Thematic analysis is a common analytical method in qualitative interview studies (Braun et al., 2019; Braun et al., 2015; Braun & Clarke, 2006). We followed the six steps listed by Braun and Clarke (2006) for inductive thematic analysis. The first step was a close reading of the transcripts. The first author transcribed all of the interviews, and all authors read the transcripts. Step two is generating initial codes. See table 1 for an example of the preliminary coding.

Table 1: Coding example

TEXT	CODE(S)	NOTE
Well it was an assignement where I was supposed to write about a book we had been reading in class, that was interesting. So I just started working, and working and I thought it was nice to write and feel like I'm coping with the assignment. That's a very nice feeling.	Academic self-confidence	Positive feeling of coping, interesting and challenging assignments.
[ehm] I was kinda put in a class where I was like the "smart one", because "wow she reads books in recess. And she pays attention in class!" And I always thought it was strange, so I kinda just got that role, like that.	Primary school, Comments from other students, Roles	Didn't feel like they fit in the class, they got a role as «the smart one» because of reading books and paying attention.
I like it best in secondary school. But I think it has a lot to do with the environment also. And, yeah I got involved in the wrong crowd like … and I think the subjects are more fun, and like there is more discussion and not just what the book says and remember that to the test. Like there is much more discussions in class, and we try to reflect more and such, and we learn more about those things.	Discussion, Enrichment, Joy of learning	The student mention discussion and reflections as positive for learning. They say that it's fun and they like to move past what the book says. This is in line with enrichment strategies.

The first author coded the transcriptions in NVivo 12 Pro (QSR International), computer-assisted qualitative data analysis software (Silver & Lewins, 2015). First, by question, with all the individual answers from each informant at the same time. This method gave a sense of similarities and differences between informants. The second author conducted a preliminary coding, resulting in the same codes as the first author. After we coded all of the questions, we reread each interview and coded again. The coding sessions resulted in 98 different codes. Step three is searching for themes. We grouped some of the codes easily, while others remained separate until we determined the broader themes. Step four is reviewing themes. All authors discussed codes and preliminary themes during a meeting. The first author then wrote summaries of each theme, examined the themes for commonalities and differences, and searched for the overarching story.

Table 2: Relationship between themes, subthemes and codes

OVERARCHING THEME	SUBTHEME	CODES	CODES
The Educational system	Adapted education	Enrichment	Extra assignments
		Acceleration	Challenging work
		Adapted education	Complicity
	Teachers	Competent teachers	Golden Child
		Teacher relation	Helping teacher
		Overbearing teachers	Feedback
		Understanding teachers	Teacher – student conference
			Focus on achivement
	School – home relation	Teacher relation	School – home
		Family	Challenging work at home
	Primary school	Primary school	Problems with facilitation
	School work	Extra assignments	Projects
		Group work	Writing
		Grade scores	Ask for help
		Homework	Challenging work
The Joy of Learning	How I work	Notes	Skip it
		Organizing	Don't want to
		Reading	
	Joy of learning	Joy of learning	Motivation
	Subjects	Logical	Challenging work
		Discussions	
Problems related to school and learning	Classroom (social environment)	Calm working environment	Bullying
		Class environment	"Jantelaw" (Tall poppies)
	Problems related to myself	Detached	Fear of missing out
		Frustrated	Tired
		Gives up	Issues with concentration
		Need to finish	Disruptive behavior
	Instruction	No instruction	Adapted education
		Boring assignments	Freedom to choose
		Grouping by level	Repetition

Inductive thematic analysis is not a linear process (Braun et al., 2019), which we also saw in our study. After the first author wrote the thematic summaries, it was clear that there was an overweight of semantic codes and few latent codes, which prompted a new look at the material. Step five is defining and naming the themes, and step six is producing the report. We reviewed, described, discussed, and, after a meeting,

identified the themes, determining three main themes and eleven subthemes. The main themes are: the educational system, the joy of learning, and problematic issues concerning school and learning. See table 2 for the relationship between themes and subthemes.

Validity and reliability

The terms validity and reliability are contested when it comes to qualitative research. Validity, especially, has many different denotations and connotations (Creswell & Miller, 2000; Hammersley, 2007). Even though the terms have different value and content in qualitative research compared to quantitative research, it is still crucial for the qualitative researcher to prove the credibility and quality of the research. Inclusion criteria were nomination by a teacher or parent and a score of 95th percentile or above on WISC-IV. WISC-IV is a cognitive measurement with an average reliability score of .97 on the full scale, and .94 on VC and .92 on PR in the original version (Wechsler, 2003). In the Norwegian translation, the r score is .98 on VC, .92 on PR and .97 on full scale (Wechsler, 2009). In terms of validity, WISC-IV is an established tool for measuring cognitive ability, and it is a validated test for measuring intellectual giftedness. In the validation of WISC-IV, they tested it on a clinical group with intellectual giftedness. They found that the gifted group scored substantially higher on VC and PR but moderately higher on WM and PS (Wechsler, 2003).

We have established the validity of the thematic results in this study by several means. All three authors read the transcriptions, and then discussed and agreed on the codes and themes. We achieved data saturation (Bryant, 2015; Fusch & Ness, 2015) in the coding around interview fourteen. No new codes emerged from the last three interviews. The first author returned to the material to look for disconfirming evidence (Creswell & Miller, 2000). We performed member checking by inviting the participants to a session to present the themes and findings. The participants who joined this session agree that the themes represent their experiences. The tables included in the article also provide transparency.

Ethics

Norwegian Centre for Research Data has approved this study. All informants and parents gave their informed written consent (Traianou, 2015). To preserve the privacy of the participants, we have removed all names and places. We informed the participants that they could withdraw, even after the interviews. Children as participants are considered more vulnerable and need further protection than adult participants (Traianou, 2015). We have synthesized the results to create a combined story rather than sharing the individual narratives. Even so, there will be individual quotes, which emphasize essential aspects. The individual quotes are translated from Norwegian to English, which gives an extra layer of anonymity, and there are no ages, genders, or names associated with the quotes. Informants are referred to using the genderless pronoun they/them.

Findings

Our primary research question was, "How do Norwegian gifted secondary school students experience their education?" By following Braun and Clarke's (2006) procedures for inductive thematic analysis, we developed three main themes; 1) the educational system, 2) the joy of learning, and 3) problematic issues concerning school and learning. The central phenomenon is that Norwegian schools' overarching system is not adequately prepared for or invested in gifted students. The informants experience that the system is not a good fit for them and that it is necessary to change policy in order to improve their educational outcomes.

Theme 1: The Educational system

The analysis shows that there are different systematic issues related to teachers, schools, adapted education, and overarching issues, such as educational law.

One of the systematic issues is teachers. Teachers can be a promotional or inhibitory factor in gifted students' education, based on their knowledge and attitudes. Our informants emphasize teachers who have helped them and teachers who have hindered their education.

> I know several in my school, (…) who learn fast, (…) and they need more challenges in some subjects. And it's like they won't get it, and they are stuck with the teacher who is holding them back, and just repeat a lot they already know, and they lose motivation for the subjects.

The quote above illustrates how teachers can be an inhibitory factor if they do not differentiate the education provided. Further analysis reveals that teachers who have difficulties with classroom management, resulting in a lot of noise and disruption, may also inhibit gifted students' development.

> Well, one of them, (…) it's like a lot of noise and foolishness in his classes. It's like he has no control over his students. (…) [A]ll the students they just walk around somewhere and do the complete opposite of what they are supposed to do.

The student emphasizes that a good learning environment is built on the teacher's control and classroom management skills.

Moreover, the analysis shows what kind of teachers these students prefer — professional teachers who are knowledgeable in their subject and know how to convey their knowledge.

> They are teachers who are very flexible and who know their subject well. And teachers who (…) manage to facilitate for everyone, for all types of students.

The quote above demonstrates that a good teacher differentiates the curriculum and adapts it to all students' needs. Further, the preferred teachers are friendly but strict

when necessary; and the learning environment is calm and inviting. The students also describe teachers that give proper feedback.

> She gives good feedback on assessments. And that's something I think is important, that you should look less on the grade itself and rather more on the assessment, like the comment on what you can do better, what was good and stuff like that, and she is very good at that.

The quote above shows that these students want more input than just a grade on paper; they want to know how to improve. A good teacher provides this kind of feedback. Furthermore, the analysis revealed other systematic issues, like a lack of communication between teachers and more of the same work instead of greater difficulty. Additionally, when the participants get challenging work, they have to work independently, as there are not enough teachers to facilitate appropriately.

> I think maybe they should facilitate better. [eh] I know it's like everyone should have the same when they are at school. But I think it would have been better with more adaptation. I know it's not possible, with the way the school is now, but more adaptation for each student (…) it would be better.

In the quote above, the informant calls for more adaptation in school. It also demonstrates that when everyone gets the same input, that does not mean that the education provided is equitable. Some students say that this is probably difficult to change because that would mean changing the entire system.

> [I] t's not stuff I want to change at this school, but like with the entire system, but I don't think that's realistic to think about.

These students see a fault in the system. The central issue is using groups based on the students' competence level, not just the regular age group. The participants report that splitting the age group would make it easier for the teacher to facilitate and adapt the instruction and curriculum.

> [T]hey are not allowed to do that, my teacher said. Because it shouldn't be elites and such, so they are not allowed to make groups by level (…). [I]nstead, they mix people who are on a level of two or three with people who get five and six. And I don't think that works out for either of them.

Moreover, the analysis displays that grouping by level is considered elitist. According to participants, this notion makes it harder to adapt the education for all students.

The analysis in this study revealed that it seems easier to facilitate for gifted students in secondary school. Primary school (especially 1–4) appears to be the most disruptive and tedious for these students, and they talk about acceleration in an unfavorable view.

> In primary school, there was a lot less adaptation compared to secondary school. Like, (...) I work with 10th-grade math now, and I have a teacher teaching me. But in primary school, I just sat in the classroom with headphones on and did my own thing; there was no teaching.

The quote above reflects both the difference between primary and secondary school and the systematic issue with facilitation.

Besides, the analysis demonstrates that schoolwork is a systematic issue. These students share the same experience with group work; they get stuck with all the work and must carry the entire group.

> [B]ut I don't like cooperative work. (...) ***Why not?*** Because (...), especially if you have projects and such, (...) you get placed in a group where it's quite different how motivated you are. So you get stuck with a lot of work, and I don't like that. It's very annoying, (...) Since I want the entire project to be good, not just my part, even if it's an individual grade in the project, it's like I want it to be perfect, so then I get stuck with a lot of work and do everything myself.

The quote above also illustrates another vital aspect, which is involvement and participation. In the Norwegian educational law (*The Education Act*, 1998, § 1-1), the students have the right to be involved and affect their education. On the whole, the informants regarded participation as occurring through the student council, and not as a way of influencing their education.

Theme 2: The Joy of Learning

The analysis revealed different ways of learning in school. The informants enjoyed learning new things, especially logical subjects, and more significant projects that combined various subjects and art elements.

In the analysis of how these students learn best, there are individual differences and shared experiences. Some of the students mention taking notes and organizing their learning, while others feel that notes are disturbing and they learn more by focusing on the teacher or reading.

> [A]nd I think it's fun just to find out things like just go on Wikipedia and read about German minorities in Slovenia; I think that's interesting. Just learning and learning. That's fun!

The above extract displays the joy of learning these students have. The students talk with enthusiasm about the subjects they enjoy. They speak about logical subjects like math or science in optimistic terms. These subjects are rational and easily understandable, and they appreciate using this part of their brain. In addition, the participants consider discussions as fruitful for learning and questions that make you reflect as rewarding.

The analysis clarifies that project assignments, where they need to develop their own research question, are valid methods for learning and getting more challenges.

> For example, when we in science were supposed to make this health booklet, and that was fun because I didn't know much about it; at the same time, you got to mix in knowledge from the book with graphic design and art.

The quote above demonstrates that project work can encompass different subjects and include art, which these students seem to enjoy.

Theme 3: Problematic issues concerning school and learning

The analysis revealed that each informant mentions problematic issues related to their education. There are different aspects of their experience in school that disturb their learning.

The analysis displays that other students in school might disrupt education and learning.

> [T]here was a lot of noise and disruption, and we didn't do anything, the teacher didn't know what I was supposed to do, so I just sat there and did nothing and got really frustrated. I was really mad at everything and everyone actually, since none of them were listening, and there was so much noise.

The above extract illustrates how frustrated these students can get when someone disturbs their learning and education. The informants also need less repetition, varied instruction, more freedom to choose, facilitated education, and grouping by levels. When they do not get this kind of differentiation, they get bored and frustrated.

> Repetition is, really, I think it's just a waste of time for me when I know I could have used that time to learn something new, instead of repeating what we had two days ago.

One student calls for a proper education, not just being expected to learn on their own.

> I don't like the way (...) they teach me in math. Or it's not even teaching, the way they want me to learn math on my own. I can't sit in a room with a book and learn like that. ***You want to be taught?*** I want to be educated! But not instructed how to calculate the volume of a dice; (...) that's just boring.

The two quotes above emphasize the need for proper adaptation and facilitation in school. The informants are frustrated by repetition or sitting by themselves and learning independently. They want a proper education, not self-study.

The analysis further demonstrates that when the informants get bored and frustrated in school, they display disruptive behavior. This disruptiveness can take the form of daydreaming (being detached from the learning situation or task at hand) or physical disruptions (talking, walking, etc.).

> Mhm, and I used to talk a lot in class. They said I had to be quieter and not disturb others. ***If you think back to that time, do you remember why you were talking in class?*** It was because it was boring, so I talked to people.

Boredom also leads to issues with concentration and feelings of fatigue. The students report how challenging it is to concentrate and put effort into tedious and unnecessary assignments. They do not put the same effort into these kinds of tasks as they would more challenging tasks. Moreover, the analysis revealed other problematic issues like perfectionism, that they need to stay on top of everything and are afraid of missing out on their education.

To sum up, the students want teachers who are competent and can adapt the education to their needs. The informants report that their education is better adapted in secondary school. There are issues related to the educational system, which indicate that the system is not optimal for them. Further, the informants reflect on how they learn best, and that they like project assignments, reflection, and discussions. Repetition and unnecessary work and assignments are tedious and result in a lack of concentration and disruptive behavior.

Discussion

Equitable education

Every student in Norwegian primary, secondary, and upper secondary school has the right to an inclusive, equitable education adapted to their needs and abilities (*The Education Act*, 1998, § 1-1, § 1-3). This study indicates systematic challenges that might lead to education without equity, inclusion, and adaptation.

The results in theme 1 reveal that the students want more grouping based on level. In Norway, the educational law emphasizes that you cannot regularly split student groups by competence level (*The Education Act*, 1998, § 8-2). The law does not permit schools and teachers to make permanent groups based on level, except for students with special education needs. However, it is allowed if such a grouping is less regular. Teachers might not be aware of this exception. In the official report from 2016 (NOU 2016: 14, 2016), the authors mention grouping by level as a missed opportunity. Gifted students benefit from special groups and grouping within the class or across grades (Steenbergen-Hu et al., 2016). Individualization and differentiation are core principles in gifted education, but this is not easy to achieve in same age groups, which are heterogeneous in development and learning needs (Mönks & Katzko, 2005). The NOU (2016) argues that both teachers and schools might be underutilizing this option. Our results indicate the same.

Teachers are essential in the DMGT and the MMG (Gagné, 2010; Mönks & Katzko, 2005). Teachers must be aware of the needs of the student and how to facilitate them properly. One result in theme 1 displays that a good teacher facilitates these students. These findings are on par with other qualitative studies that find that students value teacher competence and teacher personality, novelty, and creativity (Gomez-Arizaga et al., 2020; Samardzija & Peterson, 2015). In the DMGT, the chance element is a catalyst that affects both the developmental process and the environmental and intrapersonal catalyst (Gagné, 2004, 2010). As we see in the results, there are different experiences between the different students regarding the provisions and adaptation they receive, indicating that getting a teacher who provides and facilitates them influences how they experience their education. As in Schmitt and Goebel's (2015) study, teachers might promote or hinder gifted students' development. The educational system should reduce the amount of chance and how chance affects the education of gifted students.

Wendelborg and Caspersen (2016) show that high achievers receive less support and fewer challenges than their peers. Smedsrud (2018) found that gifted students did not receive sufficient challenges, especially in primary school; Persson (2010) shows similar results from Sweden. In our study, the students are more pleased with their experience in secondary school and say the education there is better adapted. It is difficult to speculate on why there is a difference; it might be primary teachers' competence or knowledge about giftedness and gifted students' needs. It might be, as in Sweden, that the increased difficulty in secondary school makes it easier to differentiate or that specialized subject teachers find it easier to enrich the curriculum (Persson, 2010). The results further demonstrate that the facilitation and adaptation for these students does not provide them with enough opportunities to develop their potential. Equitable education does not mean education that is the same for everyone – equity in education requires differentiation (Nordahl et al., 2018).

Educational provisions

Education for gifted students can be adapted by utilizing content from a higher grade level and assignments that foster critical thinking and problem solving (Betts, 2004; VanTassel-Baska & Hubbard, 2016). Provisions like adaptation and facilitation are an essential part of the DMGT and the MMG (Gagné, 2010; Mönks & Katzko, 2005). Adaptation through ordinary education might not necessarily fulfill the needs of gifted students. The individual right to adaptation in special education might give gifted students greater opportunity to utilize their potential. However, the Norwegian educational authority does not acknowledge giftedness as a "special" education need (NDET, 2014, p. 13). Are we losing some potential by neglecting that giftedness might be a "special" education need?

One of the provisions we see in the result is acceleration. Some participants have skipped a year, while others attend an accelerated subject. Acceleration is a tried and valued type of facilitation as it provides the necessary speed and less repetition (Sayler & Brookshire, 1993). Acceleration might mean starting school at five instead of six

(*The Education Act*, 1998, § 2-1), skipping a grade, or subject acceleration. The most significant problem we found with subject acceleration is getting it to work; you need the entire school environment to work together. There might also be issues related to the myth about the harmful effects of acceleration, but acceleration does not negatively affect students socially or psychologically, and acceleration has a positive and significant effect on academic achievement (Bernstein et al., 2020; Steenbergen-Hu et al., 2016). Schools need to develop a system that makes it easier for students to take accelerated subjects (NOU 2016: 14, 2016). An overarching system would also reduce the chance element in what kind of provisions gifted students get.

In theme 2, the analysis revealed how the participants feel they learn best. Logical subjects, reflection, discussion, project assignments, and creative and practical assignments are fruitful for their learning. These results are similar to previous research that mentions discussion (Brandišauskienė 2019), logical subjects like math and science (McGrath 2019; Mujtaba & Reiss, 2016), reflection (Borovay et al. 2019), and creative enrichment projects (Brigandi et al., 2016; Gomez-Arizaga et al., 2020). Teachers need to know how to adapt the education so gifted students can utilize their potential. The forms of adaptation mentioned here are inclusive (Rasmussen & Lindgård, 2018) and possible to utilize in ordinary adapted education. When a teacher evaluates a gifted student's education, they should ask that student how they learn best and what motivates them, and use this information when adapting the education. A gifted student might need differentiation both in terms of types of assignments and content.

The results in theme 3 show how problematic issues can lead to frustration and boredom. The examination further showed that when gifted students get bored and frustrated, they turn to disruptive behavior. Some research points to the relationship between giftedness and behavioral problems (Bakar & Ishak, 2014; Kennedy, 2002; Saunders, 2003; Shaywitz et al., 2001). Others find that gifted students show fewer behavioral issues (Cornell et al., 1994; Francis et al., 2015; Sayler & Brookshire, 1993; Shechtman & Silektor, 2012). It seems that gifted students in gifted programs are less likely to show behavioral issues like disruptive behavior. But, the picture is different for gifted students who lack adaptation. There are no gifted programs per se in Norway, and students with high learning potential are reliant on their teachers and the provisions provided by their school.

Limitations

Qualitative researchers need to be aware of and reflect on the inherent biases and assumptions we bring to research (Becker, 1967; Finlay & Gough, 2003). Becker (1967) argues that sociological research should inform the reader about which side the research favors. This study focuses on students' perspectives, and teachers might disagree with this presentation. The themes are a product of how we analyzed the interviews and are subject to our biases. Themes do not emerge from the data, we are not discovering diamonds (Braun & Clarke, 2016; Constas, 1992), and different researchers might produce different themes.

As this is an inductive qualitative study with only seventeen participants, it is impossible to generalize the findings to all gifted students in Norway. There were some differences in interview duration, with the shortest interview at sixteen minutes. This participant answered every question but was much less talkative than the other participants.

Conclusion

Previous research on gifted students in Norway is scarce, and this study contributes to this area of research with valuable knowledge about how gifted students experience their education in primary and secondary school. The study's themes reveal that the informants' experience of their education is that it is not adequately adapted to their needs and abilities. The students experience different issues that affect and disturb their learning in school, including issues with the system, with a particular teacher or classroom, or how they handle boring assignments. According to the DMGT and MMG (Gagné, 2010; Mönks & Katzko, 2005), teachers and schools are necessary for developing gifts to talents. Our results indicate that the Norwegian educational system is not adequately prepared to give gifted students the conditions they need to further their development. This means that each teacher must provide students with the necessary facilitation. Still, the teacher might have limited knowledge about giftedness and adaptation for gifted students. It highlights the chance element in DMGT and how this affects the education of gifted students. Systematic challenges concerning acceleration and adaption need to be addressed so that gifted students in Norway can receive an inclusive, equitable and adapted education.

Implications and further research

Our study is important for teachers as we highlight gifted students' experiences in Norway and their needs. Our results are also valuable for policymakers. It might be necessary to implement changes on a systemic level to better provide for gifted students and reduce the chance element in their education. There is a need for more knowledge and information about gifted students in Norwegian teacher education and for policymakers.

Further research should investigate how to facilitate these students, as well as how to explore teachers' perspectives. Exploring giftedness and disruptive behavior in Norwegian schools is also of interest. How prevalent disruptive behavior is in the Norwegian gifted student population is impossible to say based on this study.

REFERENCES

Bakar, A. B. Y. & Ishak, N. M. (2014). Depression, anxiety, stress, and adjustments among Malaysian gifted learners: Implication towards school counseling provision. *International Education Studies*, *7*(13), 6–13. http://dx.doi.org/10.5539/ies.v7n13p6

Becker, H. S. (1967). Whose side are we on? *Social Problems, 14*(3), 239–47. https://doi.org/10.2307/799147

Bernstein, B. O., Lubinski, D. & Benbow, C. P. (2020). Academic acceleration in gifted youth and fruitless concerns regarding psychological well-being: A 35-year longitudinal study. *Journal of Educational Psychology*. https://doi.org/10.1037/edu0000500

Betts, G. (2004). Fostering autonomous learners through levels of differentiation. *Roeper Review*, *26*(4), 190–191. https://doi.org/10.1080/02783190409554269

Borovay, L. A., Shore, B. M., Caccese, C., Yang, E. & Hua, O. L. (2019). Flow, achievement level, and inquiry-based learning. *Journal of Advanced Academics, 30*(1), 74–106. https://doi.org/10.1177/1932202X18809659

Børte, K., Lillejord, S. & Johansson, L. (2016). *Evnerike elever og elever med stort læringspotensial: En forskningsoppsummering* [Gifted students and students with high learning potential: A research summary]. Kunnskapssenter for utdanning. https://www.forskningsradet.no/siteassets/publikasjoner/1254019980213.pdf

Brandišauskienė, A. (2019). "I am more than my IQ": Analysis of the experience of a gifted learner. *Gifted Education International, 35*(3), 201–215. https://doi.org/10.1177/0261429419840648

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://www.tandfonline.com/doi/abs/10.1191/1478088706qp063oa

Braun, V. & Clarke, V. (2016). (Mis)conceptualising themes, thematic analysis, and other problems with Fugard and Potts' (2015) sample-size tool for thematic analysis. *International Journal of Social Research Methodology, 19*(6), 739–43. https://doi.org/10.1080/13645579.2016.1195588

Braun, V., Clarke, V., Hayfield, N. & Terry, G. (2019). Thematic analysis. In P. Liamputtong (Ed.), *Handbook of research methods in health social sciences* (pp. 843–60). Springer.

Braun, V., Clarke, V. & Rance, N. (2015). How to use thematic analysis with interview data. In A. Vossler & N. Moller (Eds.), *The counselling and psychotherapy research handbook* (pp. 183–197). Sage Publications.

Brigandi, C. B., Siegle, D., Weiner, J. M., Gubbins, E. J. & Little, C. A. (2016). Gifted secondary school students: The perceived relationship between enrichment and goal valuation. *Journal for the Education of the Gifted, 39*(4), 263–287. https://doi.org/10.1177/0162353216671837

Brinkmann, S. (2015). Unstructured and semi-structured interviewing. In P. Leavy (Ed.), *The Oxford handbook of qualitative research* (pp. 277–299). Oxford University Press.

Bryant, A. (2015). The grounded theory method. In P. Leavy (Ed.), *The Oxford handbook of qualitative research* (pp. 116–136). Oxford University Press.

Constas, M. A. (1992). Qualitative analysis as a public event: The documentation of category development procedures. *American Educational Research Journal, 29*(2), 253–266. https://doi.org/10.3102/00028312029002253

Cornell, D. G., Delcourt, M. A., Bland, L. C., Goldberg, M. D. & Oram, G. (1994). Low incidence of behavior problems among elementary school students in gifted programs. *Journal for the Education of the Gifted, 18*(1), 4–19. https://doi.org/10.1177/016235329401800102

Creswell, J. W. & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory Into Practice, 39*(3), 124–130. https://www.jstor.org/stable/1477543

Cross, J. R. & Cross, T. L. (2015). Clinical and mental health issues in counseling the gifted individual. *Journal of Counseling and Development, 93*(2), 163–172. https://doi.org/10.1002/j.1556-6676.2015.00192.x

Cross, T. L., Coleman, L. J. & Terhaar-Yonkers, M. (2014). The social cognition of gifted adolescents in schools: Managing the stigma of giftedness. *Journal for the Education of the Gifted, 37*(1), 30–39. https://doi.org/10.1177/0162353214521492

Dare, L. & Nowicki, E. (2019). Beliefs about educational acceleration: Students in inclusive classes conceptualize benefits, feelings, and barriers. *The Journal of Educational Research*, *112*(1), 86–97. https://doi.org/10.1080/00220671.2018.1440368

Dodillet, S. (2019). Inclusive elite education in Sweden: Insights from implementing excellence programs into an egalitarian school culture. *Scandinavian Journal of Educational Research*, *63*(2), 258–271. https://doi.org/10.1080/00313831.2017.1336480

Finlay, L. & Gough, B. (Eds.). (2003). *Reflexivity: A practical guide for researchers in health and social sciences*. Blackwell Science.

Francis, R., Hawes D. J. & Abbott, M. (2015). Intellectual giftedness and psychopathology in children and adolescents: A systematic literature review. *Exceptional Children, 82*(3), 279–302. https://doi.org/10.1177/0014402915598779

Frantz, R. S. & McClarty, K. L. (2016). Gifted education's reflection of country-specific cultural, political, and economic features. *Gifted and Talented International*, *31*(1), 46–58. https://doi.org/10.1080/15332276.2016.1220794

Fusch, Patricia I. & Lawrence R. Ness. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report; Fort Lauderdale, 20*(9), 1408–1416. https://search.proquest.com/docview/1721368991?accountid=8579

Gagné, F. (1995). From giftedness to talent: A developmental model and its impact on the language of the field. *Roeper Review, 18*(2), 103–111. https://doi.org/10.1080/02783199509553709

Gagné, F. (2004). Transforming gifts into talents: The DMGT as a developmental theory. *High Ability Studies*, *15*(2), 119–147. https://doi.org/10.1080/1359813042000314682

Gagné, F. (2010). Motivation within the DMGT 2.0 framework. *High Ability Studies, 21*(2), 81–99. https://doi.org/10.1080/13598139.2010.525341

Geake, J. G. & Gross, M. U. M. (2008). Teachers' negative affect toward academically gifted students: An evolutionary psychological study. *Gifted Child Quarterly*, *52*(3), 217–231. https://doi.org/10.1177/0016986208319704

Gomez-Arizaga, M. P., Valdivia-Lefort, M., Castillo-Hermosilla, H., Hébert T. P. & Conejeros-Solar, M. L. (2020). Tales from within: Gifted students' lived experiences with teaching practices in regular classrooms. *Education Sciences, 10*(5), 137. https://doi.org/10.3390/educsci10050137

Gorard, S. (2001). *Quantitative methods in educational research: The role of numbers made easy*. Continuum.

Hammersley, M. (2007). The issue of quality in qualitative research. *International Journal of Research & Method in Education, 30*(3), 287–305. https://doi.org/10.1080/17437270701614782

Kennedy, D. M (2002). Glimpses of a highly gifted child in a heterogeneous classroom. *Roeper Review, 24*(3), 120–124. https://doi.org/10.1080/02783190209554148

Kvale, S. & Brinkmann, S. (2015). *Det kvalitative forskningsintervju.* Gyldendal Akademisk.

McGrath, P. (2019). Education in Northern Ireland: Does it meet the needs of gifted students? *Gifted Education International, 35*(1), 37–55. https://doi.org/10.1177/0261429418784165

Ministry of Children and Families. (1991). *FNs konvensjon om barnets rettigheter* [UN convention on the right of the child]. Barne- og familiedepartementet. https://www.regjeringen.no/globalassets/upload/kilde/bfd/bro/2004/0004/ddd/pdfv/178931-fns_barnekonvensjon.pdf

Mujtaba, T. & Reiss, M. J. (2016). "I fall asleep in class … but physics is fascinating": The use of large-scale longitudinal data to explore the educational experiences of aspiring girls in mathematics and physics. *Canadian Journal of Science, Mathematics and Technology Education, 16*(4), 313–330. https://doi.org/10.1080/14926156.2016.1235743

Mönks, F. J. & Pflüger, R. (2005). *Gifted education in 21 European countries: Inventory and perspective.* Radboud University Nijmegen. https://www.giftedforyou.eu/plovdiv-guide/17.pdf

Mönks, F. J. & Katzko, M. W. (2005). Giftedness and gifted education. In R. J. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (2nd ed.). Cambridge University Press.

Nordahl, T. et al. (2018). *Inkluderende fellesskap for barn og unge. Ekspertgruppen for barn og unge med behov for særskilt tilretttelegging* [Including community for children and youth. The expert group for children and youth with need for special adaption]. https://nettsteder.regjeringen.no/inkludering-barn-unge/files/2018/04/INKLUDERENDE-FELLESSKAP-FOR-BARN-OG-UNGE-til-publisering-04.04.18.pdf

NOU 2016: 14 (2016). *Mer å hente. Bedre læring for elever med stort læringspotensial* [More to gain. Better learning for students with high learning potential]. Kunnskapsdepartementet. https://www.regjeringen.no/no/dokumenter/nou-2016-14/id2511246/

Parliamentary Assembly Council of Europe. (1994). *Doc 7140. Report on education for gifted children.* https://assembly.coe.int/nw/xml/XRef/X2H-Xref-ViewHTML.asp?FileID=8142&lang=EN

Persson, R. S. (2010). Experiences of intellectually gifted students in an egalitarian and inclusive educational system: A survey study. *Journal for the Education of the Gifted, 33*(4), 536–569. https://doi.org/10.1177/016235321003300405

Peterson, J. S. (2009). Myth 17: Gifted and talented individuals do not have unique social and emotional needs. *Gifted Child Quarterly, 53*(4), 280–282. https://doi.org/10.1177/0016986209346946

Rasmussen, A. & Lingard, B. (2018). Excellence in education policies: Catering to the needs of gifted and talented or those of self-interest? *European Educational Research Journal*. https://doi.org/10.1177/1474904118771466

Reid, E. & Boettger, H. (2015). Gifted education in various countries of Europe. *Slavonic Pedagogical Studies Journal, 4*(2), 158–171. https://doi.org/10.18355/PG.2015.4.2.158-171

Renzulli, J. S. (2012). Reexamining the role of gifted education and talent development for the 21st century. *Gifted Child Quarterly*, *56*(3), 150–159. https://doi.org/10.1177/0016986212444901

Samardzija, N. & Peterson, J. S. (2015). Learning and classroom preferences of gifted eighth graders: A qualitative study. *Journal for the Education of the Gifted, 38*(3), 233–256. https://doi.org/10.1177/0162353215592498

Saunders, C. L. (2003). Case study: A gifted child at risk. *Journal of Secondary Gifted Education, 14*(2), 100–106. https://journals.sagepub.com/doi/pdf/10.4219/jsge-2003-417

Sayler, M. F. & Brookshire, W. K. (1993). Social, emotional, and behavioral adjustment of accelarated students, students in gifted classes, and regular students in eighth grade. *Gifted Child Quarterly, 37*(4), 150–154. https://journals.sagepub.com/doi/pdf/10.1177/001698629303700403

Shaywitz, S. E., Holahan J. H., Freudenheim, D. A., Fletcher, J. M., Makuch, R. W. & Shaywitz, B. A. (2001). Heterogeneity within the gifted: Higher IQ boys exhibit behaviors resembling boys with learning disabilities. *Gifted Child Quarterly, 45*(1), 16–23. https://doi.org/10.1177/001698620104500103

Shechtman, Z. & Silektor, A. (2012). Social competencies and difficulties of gifted children compared to nongifted peers. *Roeper Review, 34*(1), 63–72. https://doi.org/10.1080/02783193.2012.627555

Silver, C. & Lewins, A. F. (2015) Computer-assisted analysis of qualitative research. In P. Leavy (Ed.), *The Oxford handbook of qualitative research* (pp. 606–638). Oxford University Press.

Smedsrud, J. (2018). Mathematically gifted accelerated students participating in an ability group: A qualitative interview study. *Frontiers in Psychology, 9*, 1359. https://doi.org/10.3389/fpsyg.2018.01359

Smith, C. & Goebel, V. (2015). Experiences of high-ability high school students: A case study. *Journal for the Education of the Gifted, 38*(4), 428–446. https://doi.org/10.1177/0162353215607325

Steenbergen-Hu, S., Makel, M. C. & Olszewski-Kubilius, P. (2016). What one hundred years of research says about the effects of ability grouping and acceleration on K–12 students' academic achievement: Findings of two second-order meta-analyses. *Review of Educational Research*, *86*(4), 849–899. https://doi.org/10.3102/0034654316675417

Subotnik, R. F., Olszewski-Kubilius, P. & Worrell, F. C. (2011). Rethinking giftedness and gifted education: A proposed direction forward based on psychological science. *Psychological Science in the Public Interest, 12*(1), 3–54. https://doi.org/10.1177/1529100611418056

The Education Act. (1998). Lov om grunnskolen og den vidaregåande opplæringa (LOV-1998-07-17-61). https://lovdata.no/dokument/NL/lov/1998-07-17-61

The Norwegian Directorate for Education and Training. (2014). *Veilederen spesialundervisning* [Guidance for special education]. https://www.udir.no/laring-og-trivsel/sarskilte-behov/spesialundervisning/Spesialundervisning/

The Norwegian Directorate for Education and Training. (2020). *Tilpasset opplæring* [Adapted education]. https://www.udir.no/laring-og-trivsel/tilpasset-opplaring/

Tirri, K. & Kuusisto, E. (2013). How Finland serves gifted and talented pupils. *Journal for the Education of the Gifted, 36*(1), 84–96. https://doi.org/10.1177/0162353212468066

Traianou, A. (2015). The centrality of ethics in qualitative research. In P. Leavy (Ed.), *The Oxford handbook of qualitative research* (pp. 62–77). Oxford University Press.

UNESCO. (1994). *The Salamanca statement and sframework for action on special needs education*. United Nations Educational, Scientific and Cultural Organization. https://www.right-to-education.org/sites/right-to-education.org/files/resource-attachments/Salamanca_Statement_1994.pdf

VanTassel-Baska, J. & Hubbard, G. F. (2016). Classroom-based strategies for advanced learners in rural settings. *Journal of Advanced Academics*, *27*(4), 285–310. https://doi.org/10.1177/1932202X16657645

Wechsler, D. (2003). *WISC-IV technical and interpretive manual*. Pearson Assessment.

Wechsler, D. (2009). *WISC-IV norsk versjon manual del 1*. (Heldal, L. & Haukeland, E., Trans). Pearson Assessment.

Wendelborg, C. & Caspersen, J. (2016). *Høyt presterende elevers vurdering av læringsmiljøet*. NTNU Samfunnsforskning AS. https://samforsk.no/Publikasjoner/2016/H%C3%B8yt%20presterende%20elever%20WEB.pdf

Yavuz, E., Mehmet, S., Birben Fazilet, Y. & Hatun, S. Y. (2016). Motivation levels of gifted students and their metaphorical perceptions of school. *Educational Research and Reviews, 11*(8), 553–61. https://doi.org/10.5897/ERR2016.2697

Adapted education for gifted students in Norway: A mixed methods study

Abstract

In this article we describe the mixed methods research (i.e., quantitative survey and qualitative interviews) we conducted to investigate adapted education for gifted students in Norway. The survey results showed that the teachers (n = 132) used differentiation strategies and agreed that gifted students need an adapted education that extends beyond the regular curriculum. We identified three themes related to adapted education based on an analysis of the student interview data (N = 17, aged 12–15) and four themes based on an analysis of the teachers' responses to the open-ended survey question regarding adapted education. We also investigated similarities and differences between teacher and student themes: both groups reported similar enrichment strategies applied within adapted education, as well as similar barriers and systematic challenges to its facilitation.

Keywords: Adapted education, mixed methods, teachers, students

Introduction

In Norway, interest in gifted students and in the differentiation and adaptation of education for this student population is increasing (Børte et al., 2016). The myth that gifted students can manage on their own is being debunked as educators increasingly recognize that gifted students need facilitation from teachers to develop their gifts properly (Gagné, 2004; Renzulli, 2012; Subotnik et al., 2011). Absent the guidance they need, they are in danger of developing, for example, socioemotional difficulties, behavioral issues, negative relations with peers and teachers, and negative self-value (Cross, 2014).

Frantz and McClarty (2016) demonstrated through their study of 38 Organisation for Economic Co-operation and Development (OECD) countries that cultural characteristics contributed strongly to the way each country managed gifted education. The policy approaches they identified were differentiated on a scale ranging from egalitarianism to meritocracy. The egalitarian doctrine involved three distinct approaches: (a) providing differentiated or adapted education for all students, (b) including gifted education within special education, and (c) implementing inclusive strategies for underrepresented groups in gifted education (Frantz & McClarty, 2016, p. 49). Specialized gifted schools have been established as part of the public education system within the meritocracy doctrine. Seven countries, including Norway, Sweden, Denmark, and Finland, have not enacted any laws that address gifted education, have less knowledge about gifted students, and place less focus on this aspect of public education (Børte et al., 2016; Frantz & McClarty, 2016; Reid & Boettger, 2015).

Despite the increasing attention gifted education is now receiving in Norway, educators still have little information on how to facilitate strategies to adapt and differentiate education for gifted students (Børte et al., 2016). The current mixed methods study considered both the teacher and the student perspective to investigate the differentiation and adaptation of

education in primary and secondary schools for students with extraordinary learning potential (i.e., gifted) in Norway.

The Norwegian context

The educational approach in Norway is built to promote equity, inclusion, and adapted education (Nordahl et al., 2018). Providing an equitable education involves ensuring that all students are met with appropriate challenges and that no students are excluded based on their preconditions. However, it does not require that every student receive the same education; on the contrary, equity requires differentiation and adaptation (Nordahl et al., 2018).

To ensure the provision of an inclusive education, schools and teachers must heed the diversity in the student group. The matter of inclusive education also raises essential questions that are addressed by different and sometimes opposing positions (Magnússon & Sims, 2021). These questions ask *who*, as in which groups need inclusion or which are considered excluded, and *how*, as in how can we adjust pedagogical and organizational elements to provide an inclusive education. These questions also touch on the relationship between inclusion and special education, regarding which two strong, opposing positions exist: special education as a means to inclusive education, and special education as incompatible with inclusive education (Magnússon & Sims, 2021).

In Norway, the concept of inclusion as individual integrity, whereby diversity as the inclusion process has its own value, is integral to the understanding of inclusive education (Vik & Hausstätter, 2014). Inclusive education, in Norway, has its roots in the Salamanca Statement by UNESCO in 1994, in which gifted students are among the various student groups specifically mentioned (UNESCO, 1994).

Adapted education is one way to provide inclusive and equitable education for all. Norwegian educational law dictates that education be adapted to meet all students' needs and

abilities (The Education Act, 1998, § 1-3). According to the Norwegian Directorate for Education and Training (NDET), adapted education is not an individual right of each student; instead, it is realized through variation and differentiation in line with the student group's diversity (Norwegian Directorate for Education and Training [NDET], 2020b).

Special education is regulated in § 5-1 in the Education Act, which states that all students who do not or cannot get a satisfactory yield from ordinary education shall receive a special education (The Education Act, 1998). However, the Act does not concretely define what constitutes a "satisfactory" yield; such determinations require an assessment based on the student's needs and available provisions. The NDET has established that gifted students already achieve a satisfactory yield and, thus, are not covered by special education (NDET, 2014).

Adapted education, as a principle, encompasses both ordinary adapted education and special education (Nordahl et al., 2018). Teachers might adapt education through individual educational plans or by applying general principles for a good education (Hausstätter, 2012). In this article, "adapted education" refers to the legal term based on § 1-3 in *The Education Act* (1998). In that sense, adapted education is not an individual legal right: it does not entitle all students to receive individualized education plans tailored to their specific needs. Rather, adapted education is a strategy implemented within the classroom to the extent the teacher can manage. The implementation of adapted education is a lofty goal but one that schools should strive to achieve to the greatest degree possible (Haug, 2020).

Teachers report that they lack the necessary time and resources and are unsure of the space available to support differentiated instruction for students with special needs within ordinary education (Herlofsen & Nilsen, 2016; Nordahl et al., 2018). Gifted students are not considered to have special needs; however, they require differentiation and adaptation as well. Pre-service teachers have described gifted students as diverse and have reported difficulties in

developing and implementing differentiated teaching targeting this student group (Brevik & Gunnulfsen, 2016).

The Norwegian Official Report entitled "More to Gain – Better Learning for Students with High Learning Potential" (NOU, 2016: 14, 2016) recognizes three main systematic issues that impact the education of gifted students. First, the comprehensive education is not appropriately adapted to enable gifted students to realize their full learning potential. Second, opportunities exist for implementing pedagogical and organizational differentiation that schools are not utilizing. Third, the national and local educational systems need to operate according to a joint knowledge base regarding measures to differentiate instruction for gifted students (NOU 2016: 14, 2016, p. 8). The NDET published a compilation for schools in 2020 guiding educators on how to facilitate an optimal education for gifted students in response to the third issue (NDET, 2020a).

Differentiation and adapted education for gifted students

Rasmussen and Lindgard (2018) classified educational provisions for gifted students into three types: segregation, acceleration, and inclusion. Under segregation and acceleration provisions, the gifted students are identified and taught in segregated or accelerated classes. Other forms of acceleration include skipping grades, early entry into higher school levels, or personalized accelerated pacing of the curriculum (Missett et al., 2014). According to Mönks and Pflüger (2005), early entry into first grade and skipping grades are the most prevalent forms of acceleration implemented in the EU. While their report does not indicate segregated groups as a provision, some EU countries do offer special schools for the gifted (Mönks & Pflüger, 2005).

Myths and negative connotations surround both acceleration and segregation. Segregation can be considered elitist, and teachers and parents may view acceleration as harmful to the student's psychological well-being and social development (Bernstein et al.,

2020; Dare & Nowicki, 2019; Steenbergen-Hu et al., 2016). Recently, however, a longitudinal study demonstrated that acceleration did not negatively affect the student's psychological well-being (Bernstein et al., 2020). At the same time, acceleration has been shown to have a positive and significant impact on achievement. Moreover, gifted students have been shown to benefit from grouping within the class, grouping across grades in particular subjects, and unique grouping for the gifted population (Steenbergen-Hu et al., 2016). Students support the notion of acceleration for high-ability learners and believe it benefits the accelerated student, the teacher, and other students (Dare & Nowicki, 2019).

Nevertheless, teachers may have misconceptions borne of the harmful myths connected to acceleration and ability grouping (Bernstein et al., 2020; Steenbergen-Hu et al., 2016; Troxclair, 2013), as the substantial empirical support for acceleration and ability grouping has not necessarily translated into practice in education (Lee et al., 2010; Missett et al., 2014; Troxclair, 2013; Wood et al., 2010). A study in Finland uncovered that teachers supported differentiated education for gifted students but held more negative views toward acceleration and ability grouping (Laine et al., 2019). Since teachers may perceive acceleration and ability grouping negatively, enrichment strategies that can be implemented within heterogeneous ability groups must be considered.

At the same time, gifted students in homogenous age groups need inclusive provisions that involve differentiation and enrichment strategies (Rasmussen & Lingard, 2018; Renzulli & Renzulli, 2010; VanTassel-Baska & Hubbard, 2016). Differentiation can involve utilizing advanced content from higher grade levels and higher-level questions from Bloom's taxonomy that require students to use critical thinking and problem-solving skills, developing different projects, and to engage in problem-based learning (Betts, 2004; Renzulli & Renzulli, 2010; VanTassel-Baska & Hubbard, 2016). These types of enrichment programs promote a

higher level of thinking and creativity and allow students to explore topics and materials in depth (Kim, 2016).

A recent meta-analysis found that enrichment programs positively impact academic achievement and socioemotional development (Kim, 2016). According to Gagné (who used the term "enrichment" in place of "differentiation"), best practices for enrichment programs include enriched K–12 curriculum, systematic daily enrichment, full-time ability grouping, customized/accelerated pacing, personal excellence goals, highly selective access, and early interventions (2015, p. 287).

Teachers can enrich (i.e., differentiate) the curriculum via the four Ds: density, difficulty, depth, and diversity (Gagné, 2015). Density, which is the most crucial of these four, entails compacting or condensing the curriculum. Systematic daily enrichment requires teachers to challenge gifted learners each day. Full-time ability grouping is a sensitive and controversial subject and is not allowed under Norwegian educational law (Gagné, 2015; *The Education Act*, §8-2, 1998). Customized acceleration or pacing demands that enrichment programs also heed the student diversity. Gifted students are not a homogenous group, which obliges teachers to identify each gifted student's unique needs and predispositions. Personal excellence goals are set by either the gifted student or the teacher and may change when necessary. Highly selective access ensures that the enrichment program reaches the student group that will benefit most from it. Finally, early interventions are strategies implemented early in gifted learners' educational journey, ideally as soon as teachers discover their giftedness.

This study investigated adaptation and facilitation for gifted students in Norway. We used a convergent mixed methods design to understand adapted education from both the teacher and student perspectives. The overarching research question guiding this research—**How is**

education adapted for gifted students in Norway?—was supported by the following quantitative, qualitative, and mixed methods sub-questions:

Qualitative: How do gifted students experience adapted education?

Quantitative: How do teachers report they facilitate education for gifted students? How do teachers report the use of differentiation, the available space for differentiation, and their school's prioritization of differentiation for gifted students?

Mixed: How does the thematic analysis of gifted students' experience of adapted education confirm or differ from the survey results regarding how teachers facilitate their students?

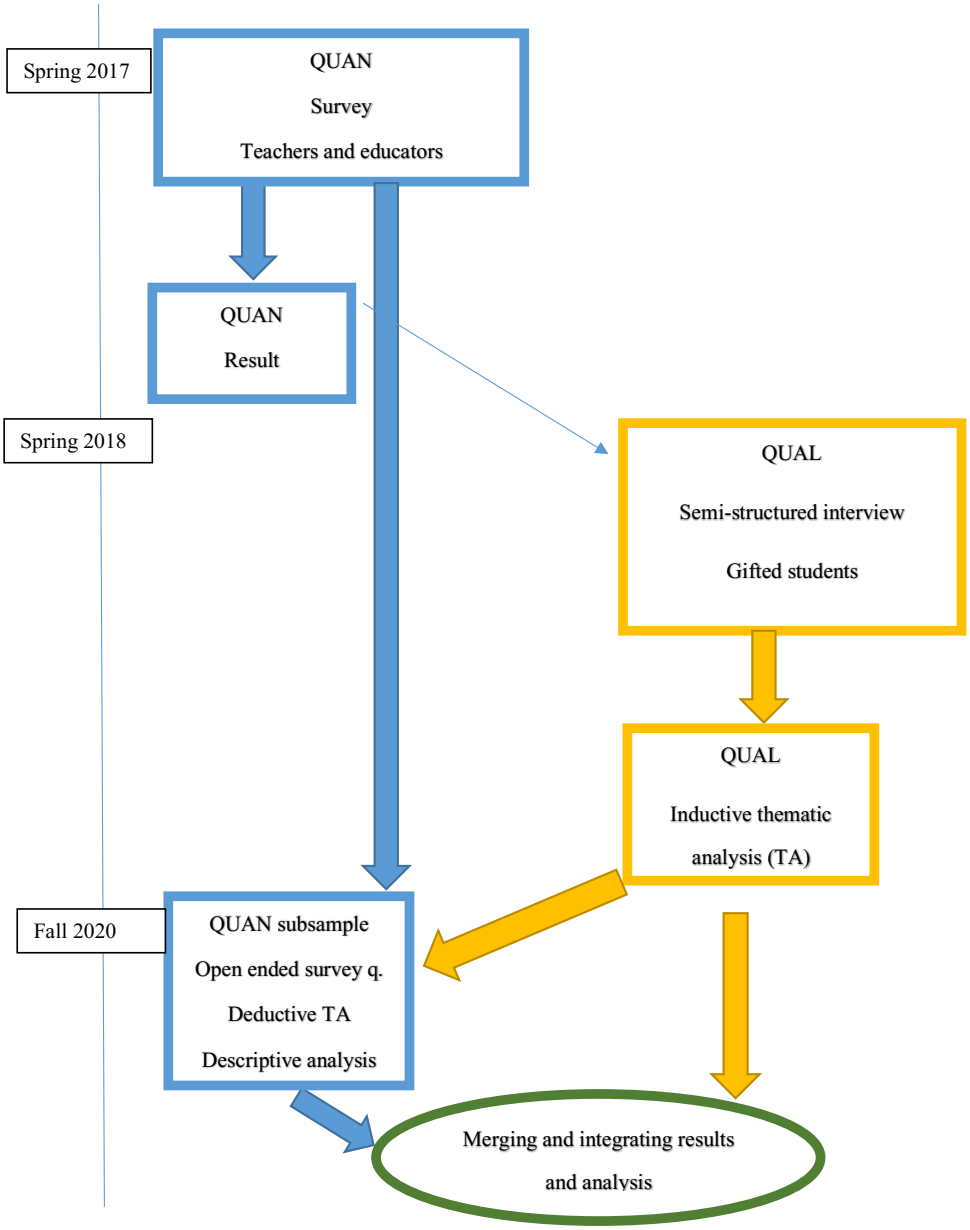
Method

This research involved the analysis of data gathered for a study that followed a convergent mixed methods design (Creswell, 2015). As such, two sub-studies, one quantitative and one qualitative, are included in the overall study (author XX). The design is not parallel because the studies were not conducted simultaneously. It has a sequential element, whereby results from the first quantitative phase influenced the development of the interview guide used in the qualitative phase. Still, the research remains convergent, as the studies were primarily conducted separately, and the merging or mixing of the data happened in the integration phase. However, the combination of quantitative and qualitative data was not equal in this design, as the purely quantitative data were supplementary to the qualitative data driving the research. Hence, this study falls on the qualitative side of the mixed methods scale (Hesse-Biber, 2010; Johnson et al., 2007). The study is explorative and descriptive, seeking to investigate adaption from two perspectives. Including quantitative and qualitative data and the teacher and student perspective captures a broader view of adaptation in Norway's educational system. Combining the teacher and student perspectives allows us to look at this

issue through different lenses. According to Creswell (2015), utilizing different analysis units is efficient when comparing multiple perspectives.

Figure 1

Timeline and illustration of data collection and analysis



Quantitative phase

In the quantitative study, we collected data through a web-based survey of 339 teachers from Norway. We recruited the participants in two cycles. Initially, we intended to conduct a national survey; however, a low response rate from both schools and teachers in the first cycle challenged us to use other methods to recruit participants. The first sample included 144 participants from a national inquiry sent to all combined primary and secondary (1–10) schools in Norway. In the second cycle, we contacted municipalities in Norway and received positive replies from one in eastern Norway and one in western Norway. The eastern municipality added 18 participants, while the western municipality provided 177 participants from 15 schools. The response rate from the western municipality was 63%. Thus, the sample population is considered a convenience sample (Gorard, 2001), so we cannot generalize the findings to all Norwegian teachers in primary and secondary school.

For the current study, we surveyed a subsample consisting of teachers who reported having a student with extraordinary learning potential in their classrooms at the time of the survey (n = 132). We included in the survey a definition of "extraordinary learning potential," which is the term commonly used to refer to gifted students in Norway. See Table 1 for background information and statistics on the study subsample. No significant differences were observed between the background statistics for the subsample and the same statistics for the survey's total sample.

Table 1

Descriptive background statistics of teachers

	N	%
Total	**132**	**100**
Gender		
Female	97	74
Male	35	26
Education		
Bachelor (4 years)	47	36
Bachelor (4 +1 year)	58	44
Master (5 years)	3	2
Master (5 +1 year)	9	7
Another	15	11
Teaching level		
Primary school	80	60
Secondary school	35	26
Across all grades	17	13
Administration	1	1
Public school	117	89
Private school	15	11
School size		
<100 students	28	22
100-199 students	27	21
200-399 students	54	41
>400 students	21	16
Contact teacher		
Yes	87	66
No	45	34

Note: *This sample is teachers who answered yes to the question "Do you currently have gifted students?"*

Instrument and procedures

We administered a web-based survey through SurveyMonkey (www.surveymonkey.com) to gather the quantitative data. The survey consisted of 25 questions, including both background questions and questions related to gifted students. This article focuses on the responses to five questions regarding differentiation (see Table 2) and to responses to an open-ended question about educational strategies used with gifted students (see Appendix 1 for copy of the survey).

We performed a pilot test with 48 teachers who completed the survey and shared feedback on the questions and formulations. Based on that feedback, we made minor changes to the study; we did not include data on the informants from the pilot in the final survey calculations.

Qualitative phase

In addition to the quantitative survey, we performed individual, face-to-face, semi-structured interviews (Kvale & Brinkmann, 2015) with 17 gifted students in Norwegian secondary schools. Data collected through the interviews comprised 303 pages of transcripts (size 12 Times New Roman font, 1.5 line spacing). The duration of the interviews varied, ranging from 16 to 80 minutes.

Interview guide

The main research question for the qualitative study was "How are Norwegian gifted secondary school students experiencing school?" This question guided development of the semi-structured interview guide. Before the data were collected, the first author conducted a pilot interview, which prompted some wording changes to the interview guide. The main topics addressed were experience and strategies in school, adapted education, family and friends, underachievement, social-emotional issues, and involvement in their education.

Recruitment and selection criteria for informants

Participants in the qualitative study included 17 gifted students between the ages of 12 and 15 who were attending secondary school in Norway. Eleven participants were male, and six were female.

We pursued multiple avenues to recruit gifted students to participate, including connecting with Happy Children, a Norwegian parental network for parents with gifted kids; contacting a talent center in math and science; reaching out to all secondary schools in our municipality; and posting messages on social media. To participate, the student had to be nominated by a teacher or parent and score at the 95th percentile or above on one or more subscales in the WISC-IV: verbal comprehension (VC), perceptual reasoning (PR), working memory (WM), or processing speed (PS). The participants were gifted either in VC (exceptionally talented in language/reading/writing) or PR (talented in logical fluid reasoning and visual-spatial skills). The first author assessed 13 of the participants; the other 4 had been evaluated previously. Some had high scores in all domains, while others scored substantially higher on VC or PR.

Ethics

The Norwegian Centre for Research Data approved both studies presented in this article. All informants in the quantitative survey and all informants and parents involved in the qualitative study provided their informed written consent (Traianou, 2015). We informed the participants that they could withdraw from the studies at any time, even after completing the interviews or the survey. To preserve the participants' privacy, we removed all names and locations.

Current study

This article presents the analyses from each of the two primary studies and responds to the central mixed research question that serves as the guiding force of this article: "How does the

thematic analysis of gifted students' experience of adapted education confirm or differ from the survey results regarding how teachers facilitate their students?" To answer this question, we employed an inductive thematic analysis of gifted students' experiences as reported during their interviews; we then used the codes regarding facilitation and adaptation in the deductive thematic analysis of teachers' answers to the open-ended survey question: *"*What kind of facilitation would you as a teacher provide to students with extraordinary learning potential?" Because the students reported their actual school experiences, we decided to include those teachers who indicated that students with extraordinary learning potential were represented in their classes at the time of the study (132 teachers). The students reported on their recent experiences in secondary school and recalled experiences from primary school.

Analyses

The analyses in this study reflect a combination of qualitative and quantitative approaches. We used inductive thematic analyses (Braun et al., 2015; Braun & Clarke, 2006) in the qualitative study to examine the data from the student interviews, following the six steps listed by Braun and Clarke (2006): we familiarized ourselves with the material, generated initial codes, searched for themes, reviewed the themes, defined and named them, and produced the report. The qualitative student codes were then used deductively to analyze teachers' responses to the open-ended survey question on the facilitation of differentiation and adaptation. Using the student codes as our deductive framework, we searched for themes, defined them, and named them. We used NVivo 12 pro (QSR International), a computer-assisted qualitative data analysis software (Silver and Lewins, 2015), for our analysis.

We used descriptive statistics to answer the quantitative research question regarding teachers' self-reported use of differentiation. The respondents were asked five questions regarding differentiation and adaptation. Responses to these questions were indicated using a

5-point Likert scale, with answers ranging from “totally disagree” to “totally agree.” We used IBM SPSS 25 for frequency analyses.

Results

Quantitative findings

We asked the teachers five questions regarding differentiation and adaptation to gain insights into the teachers view on differentiated instruction for gifted students. Table 2 presents the results for each question.

Table 2

Frequencies on questions regarding differentiation

N = 132

	Totally disagree % (*N*)	Somewhat disagree % (*N*)	Neither agrees nor disagrees % (*N*)	Somewhat agree % (*N*)	Totally agree % (*N*)	Mean	SD
Q 1 Possible to work with differentiated instruction	4.5 (6)	7.6 (10)	3.8 (5)	44.7 (59)	39.4 (52)	4.1	1.1
Q 2 Use differentiated instruction	1.5 (2)	3.8 (5)	3.0 (4)	54.5 (72)	37.1 (49)	4.2	0.8
Q 3 Gifted students need facilitation beyond ordinary education	3.0 (4)	5.3 (7)	0.8 (1)	42.4 (56)	48.5 (64)	4.3	1.3
Q 4 School allow space for adaption	9.8 (13)	25.0 (33)	18.9 (25)	30.3 (40)	15.9 (21)	3.2	1.3
Q 5 School prioritize adaption for gifted students	16.7 (22)	36.4 (48)	19.7 (26)	19.7 (26)	7.6 (10)	2.7	1.2

A large majority (84%) of the teachers reported that they can utilize differentiated instruction in their classrooms, and 92% confirmed employing it in their teaching practices. Nine out of ten teachers agreed that gifted students need facilitation beyond ordinary education. Regarding the availability of space for adaptation, the teachers were more split: only 46% agreed on the claim that schools provide space for adaptation. The teachers were also divided in their perceptions of the priority their schools place on adapting education for gifted students, with 53% indicating that their school does not prioritize these strategies.

Of the 132 teachers in the subsample, 108 responded to the open-ended survey question "What kind of facilitation would you as a teacher give to students with extraordinary learning potential?" The responses, which were not restricted to a limited number of characters, ranged from short two-word replies to long answers containing 300–400 characters. All but two teachers referred to some form of facilitation. Some teachers described vivid and diverse forms of facilitation, while others only wrote "adapted education." We used the codes developed from the qualitative analysis of the way gifted students' experience adaption and facilitation as a deductive coding framework. In addition to the 26 student codes, we developed 9 extra codes from the teachers' answers that did not fit the initial student codes. In the analysis we found on average 1.9 codes in the teachers' answers, with a maximum of 5 codes and a minimum of 1. See the codebook (Appendix 2) for all codes and quotes.

Qualitative findings – Students

In the interviews, the students mentioned both proper adaption and challenges to its facilitation. Following the procedure for the inductive thematic analysis (Braun & Clarke, 2006), we developed three themes related to facilitation: *adapted education, the teacher as a promoter or inhibitor,* and *barriers regarding facilitation.* See Table 3 for the relationships

between themes and subthemes. The central phenomenon that emerged was that gifted students experienced adapted education through enrichment strategies; however, systematic barriers existed that sometimes hampered the implementation of these strategies, such as the lack of proper facilitation and teachers who do not differentiate the curriculum.

Analysis of the qualitative data uncovered various strategies teachers and students used to adapt gifted students' education classified under the theme *adapted education*.

> *You do not get anything out of doing the same assignments all the time; it's better to skip further on and to a higher level.*

The students reported enrichment strategies like consulting web pages, completing additional assignments, working on projects that align with their interests, and making adjustments to enrich assignments themselves. Moreover, they expressed a preference for assignments that develop reflective and logical thinking and projects that involve art and design. Further, the students mentioned acceleration in different subjects and accelerating by skipping grades.

The analysis further revealed gifted students' experiences with distinct types of teachers: t*he teacher as a promoter or as an inhibitor*. The informants stated that they enjoyed competent teachers who convey the different elements of their instruction to all students.

> *Teachers who are very flexible and know their subject well …can facilitate [learning] for all students.*

According to the students, competent teachers who promote student learning establish good relationships with students and give them proper feedback. These teachers can adapt their instruction and facilitate learning for all students.

On the other hand, teachers who inhibit gifted students' learning do not adapt the curriculum, refuse to allow gifted students to skip ahead and do other work, and patronize the students.

> *[T]hey [gifted students] won't get the challenges they need and are stuck with the teacher holding them back …they [may] lose motivation for the subject.*

The students perceive these teachers as lacking an understanding of what the gifted students can manage and as holding them back.

Analysis of the data related to the last theme, *barriers regarding facilitation*, revealed various challenges. The informants viewed group work negatively because they typically get stuck doing the lion's share. Also, instead of being assigned different and more challenging learning activities, the students reported being assigned extra work of the same caliber. Some students referred to a lack of communication between teachers and less adaptation in primary school. The students who had received subject acceleration also experienced barriers to organizing the strategy and recalled often being placed in a room alone to work. The students indicated a desire for more freedom to choose, an accelerated education with less repetition, more variation, and grouping by levels. They perceived the education they were receiving at the time of the study to lack these types of facilitation strategies.

Table 3

Relationship between themes and subthemes

Overarching teacher theme	**Subtheme**
Individually adapted education	Enrichment
	Acceleration
	less repetition
	challenges
Instructional practices	Varied instruction
	digital tools
	gifted groups
	student responsibility
The supporting teacher	Student-teacher conference
	guidance and support
	teacher competence
Systematic challenges	Large classes
	other students' needs
	not enough help from the administration
	difficulties grouping by level
Overarching student theme	**Subtheme**
Adapted education	Enrichment
	Acceleration
	Schoolwork
The teacher as a promoter or inhibitor	Competent teachers
	Teacher relation
	Overbearing teachers
	Understanding teachers
Barriers regarding facilitation	Classroom environment
	Grouping by level
	Boring assignments
	Primary school

Qualitative findings – Teachers

We used the codes from the inductive thematic analysis (Braun & Clarke, 2006) from the qualitative study in a deductive thematic analysis of the teachers' answers to the open-ended question, "What kind of facilitation would you as a teacher give to students with extraordinary learning potential?" In the deductive analysis, we developed four themes: *individually adapted education, instructional practices, the supporting teacher,* and *systematic challenges.* See Table 3 for the relationships between themes and subthemes. The central phenomenon that emerged was that the teachers in our study adapted the curriculum for gifted students by assigning them challenging work geared toward a higher grade level, by varying their instruction, and by supporting and motivating their students. Teachers identified both a large student body and a lack of support from the school administration as challenges to facilitating differentiation and adaption appropriately.

The analysis of the responses classified under the theme *individually adapted education* showed how the teachers adapted gifted students' education and instruction by giving them challenging assignments designed for a higher grade level.

> *I wish to adapt the assignments so the students become motivated and challenge themselves.*

Acceleration was described as being implemented through books or assignments from a higher grade level. The teachers mentioned open-ended and problem-solving assignments that allow gifted students to reflect and analyze as fruitful for differentiation and enrichment. The teachers also described asking gifted students to ponder philosophical questions and questions they, themselves, do not know the answer to as an additional enrichment technique employed.

The analysis revealed that *the supporting teacher* facilitates adapted education by supporting and motivating students.

> *First and foremost, give them support to show what they can achieve. Not all these students have the structure and self-discipline to show their potential.*

Some teachers noted that allowing gifted students to skip repetitive and easy assignments is vital for their motivation. A few teachers commented that gifted students should complete assignments that they can manage individually, making them more independent, so that the teacher can dedicate time to other students in the class. The teachers also identified support and teacher–student conferences as essential to facilitating adapted education so they are not alone in designing and implementing the related strategies.

The analysis related to *instructional practices* conveyed the techniques teachers use to vary their instruction for gifted students.

> *Group work or projects where the gifted students get to work together. They often speak the same language and need to stretch themselves further.*

Teachers cited digital tools, reversed education (or flipped learning), differentiating teaching materials, and grouping the gifted students together to work on assignments as ways they vary their instruction.

The data analysis related to the theme *systematic challenges* demonstrated that teachers experience obstacles that hinder them from facilitating adaptation for students with extraordinary learning potential in real world settings, such as being singly responsible for many students.

> *You can give them extra challenges, but you don't have time to follow up with them during a typical day.*

Some teachers expressed a desire to group students by achievement level more often, and some wished for more teachers in the classroom, while others reported a lack of support from the school administration.

Mixed

The mixed methods research question guiding this study was as follows: *how do the thematic analysis of gifted students' experience of adapted education confirm or differ from the survey results regarding how teachers facilitate their students?* Table 3 presents the themes garnered from analysis of the student interview transcripts and those developed through analysis of the teachers' responses to the open-ended survey question."

The teachers described both practices they actively employed and methods they wanted to employ to facilitate differentiated instruction; however, they do not explicitly refer to the measures they are not implementing. Similarly, the students reflected on both their experiences and their vision for their ideal educational design. Still, the mixed analysis revealed many similarities in how the student and teacher participants described the facilitation of an adapted and differentiated education. For example, both students and teachers mentioned giving gifted students open assignments that require reflection, problem-solving, and the consideration of philosophical questions. The teachers referred to grouping gifted students with other students on the same level. In contrast, the students themselves wanted to be grouped by levels, but found they were often put in mixed ability groups where they ended up doing the Lion's share. The teachers highlighted assigning gifted students reading materials and exercises intended for a higher grade level as acceleration strategies that can be employed for subsets of students within the same class. The students mostly discussed acceleration in the form of skipping grades or advancing in a specific subject.

The teacher as a promoter or inhibitor theme encompassed ways a teacher can promote or inhibit gifted students' education and potential. Naturally, the teachers only addressed how they promote their students' learning. The analysis indicated that students reported a need for competent and flexible teachers who establish good relationships with students and adapt their instruction. At the same time, the teachers referred to creating fruitful

relationships with students through student–teacher conferences and by supporting their students, guiding them, and letting them skip ahead to more advanced work.

The analysis further uncovered negative feedback from both teachers and students regarding the grouping of students by levels. The students expressed a desire for their education to be provided in a more homogenous setting in terms of ability, while the teachers indicated a desire to create such groups but noted that they encounter challenges to doing so. Some teachers identified systematic issues like being alone with a large student group as contributing to these challenges. The gifted students also identified systematic issues and barriers to the facilitation of adapted education, including a lack of communication between teachers, difficulties in organizing accelerated programming, and receiving an education that has not been adapted to their needs and potential.

Discussion

This study aimed to investigate how education is adapted for gifted students among our selection of teachers and students. The teachers included in this study reported having gifted students in their classrooms at the time they completed the survey; however, the students and teachers were not from the same schools.

Gifted students are diverse and need different supports and adaptations to develop their gifts or potential properly. If they do not receive the proper support, they may be at risk of developing various problematic behaviors, losing interest in school, developing negative self-esteem, and even dropping out of school (Cross, 2014; Renzulli, 2012; Subotnik et al., 2011). Teachers are essential to providing the necessary support and differentiation for gifted students, as they are the key agents in identifying and developing the potential of all students (Tirri, 2017). Teachers in our study agreed that using differentiated instruction for gifted students in their schools was feasible, and some reported having incorporated it into their

teaching practices. In the mixed methods analysis, teachers and students mentioned similar strategies and systematic difficulties and barriers.

Enrichment strategies within adapted education

Inclusion is the default for all students in the Norwegian educational system (*The Education Act*, 1998, § 1-1). Inclusive education has its roots in the Salamanca Statement, in which gifted students are among the different student groups mentioned specifically (UNESCO, 1994). In Norway, inclusion is viewed as individual integrity, whereby diversity as well as the inclusion process has its own value (Vik & Hausstätter, 2014). However, establishing an inclusive and diverse classroom requires the teacher to differentiate and enrich the instruction and curriculum to fit the gifted students' needs. The quantitative results reflected a general consensus among the teachers that incorporating differentiated instruction was possible in their schools and that they, themselves, employed this strategy. The teachers also agreed that gifted students need an adapted education to be facilitated that extends beyond the scope of ordinary education. They were split on whether the educational system prioritizes this kind of facilitation.

Gagnè (2015, p. 287) presented seven criteria that define best practices for enrichment programs. The first two are enriched K–12 curriculum and systematic daily enrichment. As these two are highly intertwined, we combined them for the purpose of this discussion. The themes *adapted education* and *individually adapted education* applied to enrichment strategies in education and instruction. Gagnè (2015) described four enrichment types, called the four Ds: difficulty, depth, diversity, and density (the most important of the four). Density refers to compacting the curriculum so gifted students learn more in a shorter time frame. The teachers' and students' themes included different assignments, more challenging assignments, projects, reflections, and art and design. These responses are more akin to the other three Ds, primarily, difficulty and depth. Some teachers referred to utilizing books from a higher grade

level to assign more complicated work but did not mention compacting the curriculum. These results align with the findings reported for a study in Sweden, where teachers differentiated instruction through challenging and open-ended tasks (Mellroth et al., 2019).

Density can also be an acceleration strategy. Acceleration can be achieved in multiple ways, such as beginning school at a younger age, skipping grades, accelerating in a specific subject, or following a personal accelerated curriculum (Missett et al., 2014; Rasmussen & Lindgård, 2018). Analysis for the theme *adapted education* showed that students reported both full-time acceleration (skipping grades) and subject acceleration, while teachers only reported acceleration strategies that involved using books from a higher grade level. In the theme *barriers regarding facilitation,* challenges encountered with subject acceleration were highlighted. The barriers mentioned include organizational difficulties, communication issues between teachers and students, and a lack of actual instruction. Is the education genuinely accelerated if the student completes all work alone using a book from a higher grade level? We do not know why the teachers in our study did not mention acceleration strategies. It may be because of the organizational difficulties we uncovered under the student theme, or it may be related to the myths and misconceptions concerning acceleration (Bernstein et al., 2020). In this study, 35% of the teachers disagreed with the claim that schools allow space for adaption, and 53% indicated that schools do not prioritize adaption for gifted students. These results may indicate the same organizational difficulties that we found in the student data. The lack of mention of different forms of acceleration by the teachers aligns with the findings of previous studies on teacher attitudes toward gifted education that have suggested that teachers are skeptical or even hostile toward acceleration strategies (Laine et al., 2019; Troxclair, 2013).

Criterion 3 (Gagné, 2015) is full-time ability grouping. The analysis of *barriers regarding facilitation* revealed the students want to be grouped by levels more often. In

Norway, schools and teachers are restricted by law from making permanent groups based on ability (*The Education Act*, 1998, § 8-2). However, the law only prohibits the *usual* grouping by ability; flexible grouping is allowed. Nevertheless, the student and teacher participants indicated that they have not experienced this in practice.

Criteria 4 and 5 were not mentioned by the students or by the teachers. Furthermore, we found no references to customized pacing or personal excellence goals for gifted students in the analyses. Teachers addressed providing guidance for their students in the survey responses highlighting *the supporting teacher* theme, but not through individual plans or goals. Generally, teachers display a broad understanding of adapted education with less individualism (Hausstätter, 2012). None of the students mentioned that their teacher developed personal goals for them. Criterion 6, highly selective access, is not relevant in the Norwegian context.

Moreover, the analysis revealed that criterion 7, early interventions, was mentioned by some students relative to skipping grades in early primary school. However, the analysis also demonstrated that students reported only minor adaptations in primary school; also, none of the teachers mentioned any early intervention strategies. Thus, we see indications that early intervention is lacking for gifted students.

Barriers within an egalitarian education

As noted in the introduction, the Norwegian educational system is built on equity, inclusion, and adapted education. This principle is true for special education, ordinary education, and gifted education. An equitable education requires differentiation for all. Adapted education encompasses all aspects of the educational system, but is adapted education (in its legal form) enough for gifted students? The teachers in our survey agreed that gifted students need facilitation of an adapted education that surpasses the ordinary education. Adapted education within ordinary education is not an individual legal right but a high ambition (Haug, 2020). Is

it possible to differentiate the education appropriately for gifted students within ordinary adapted education? Both inclusive and adapted education require that schools and teachers heed the diversity in each student group and differentiate and adapt accordingly. However, seeking to provide an inclusive and adapted education does not necessarily mean that all schools and teachers manage to fulfill this ambition for all students. Indeed, whether it is even possible may even be a topic for discussion.

According to Frantz and McClarty (2016), the three distinct approaches to gifted education within egalitarian cultures include (a) adapted education for all students, (b) including gifted education within special education, and (c) inclusive strategies for underrepresented groups. Norway utilizes the approach of adapted education for all students. The results and analysis in this study indicate that adapted education within ordinary education does not provide the best practice for gifted students in Norway (Gagnè, 2015).

A study that examined Swedish policy documents revealed that gifted students are described as students with special needs who are at risk of developing a variety of problems. They are placed under the umbrella of special needs education, however, with some issues concerning inclusion. The policy documents focus on organizational differentiation, which can be defined as an exclusive rather than an inclusive practice (Magnússon & Sims, 2021). Magnusson and Sims (2021) reported that gifted students risk being forgotten or invisible in the full inclusive classroom or being excluded by being placed into separate groups. Teachers in Norway find facilitating adapted education for students with special educational needs in the ordinary inclusive classroom challenging (Herlofsen & Nilsen, 2016). Suppose teachers lack time and resources to support students who have a legal right to an individualized adapted education: What would the situation be for gifted students who need facilitation but do not have the same legal right? The analysis in this article shows both students and teachers point to difficulties and systematic challenges in the provision of gifted education. Some of

these challenges are related to ability grouping; others relate to communication, acceleration, lack of instruction, mixed-ability group work, slow progress, and too much repetition.

Including gifted education within special education is considered an egalitarian approach (Frantz & McClarty, 2016). The official report uncovered that opportunities exist for pedagogical and organizational differentiation that schools are not utilizing (NOU 2016:14, 2016). Flexible grouping by ability is possible; however, neither teachers nor students in our study reported experiencing such groupings. Perhaps defending these *special* groups for the gifted students would be easier if Norway considered gifted education part of special education. However, as the study from Sweden suggests, these special groups might also be considered as conflicting with inclusive education (Magnússon & Sims, 2021). The egalitarian culture itself may be the barrier to properly adapting education for gifted students.

Gifted students need proper educational strategies to help develop their potential (Renzulli, 2012; Subotnik et al., 2011). Of course, gifted students are not a homogenous group, so they need individual differentiation based on their unique needs and predispositions. However, some best practices have been established for educational strategies that include accelerated pace, ability grouping, enrichment, or differentiation within heterogeneous ability groups. According to the results of our study, Norway may have a way to go to in developing an appropriate education program for gifted students.

Limitations and implications for further research

This article presents the results from a quantitative survey and a qualitative interview mixed methods study that captured both teachers' and students' perspectives. Our study highlighted trends and results that may be necessary for other teachers and policy makers in Norway and other egalitarian educational cultures to consider. This research offers a glimpse into an educational system that lacks specific programs for gifted students and showcases how gifted

students and teachers work to differentiate the education within that system. The quantitative survey participants constituted a convenience sample; hence, we cannot generalize the results to all Norwegian teachers in primary and secondary schools. Furthermore, the teachers in this study self-evaluated their teaching and instructional practices, so those data may be biased. Additionally, the gifted students only reported on their own experiences; other students in Norway may have had vastly different experiences. However, similarities in the facilitation of adapted education and the challenges teachers and students both pointed to lend credibility to our results. Moreover, utilizing a mixed methods approach adds strength. Thus, the blind spots regarding barriers and challenges may not have been as profound in a purely qualitative or quantitative sample.

Further research should investigate how to navigate the challenges of ability grouping and how to implement acceleration within the egalitarian educational system. Is it possible, feasible, or just not ideologically attractive? Will the best practices presented by Gagnè (2015) work best in the Norwegian educational system, or should we consider other approaches and practices? Have gifted students in Norway experienced these best practices, and how? These are interesting questions for further exploration.

References

Bernstein, B. O., Lubinski, D., & Benbow, C. P. (2021). Academic acceleration in gifted youth and fruitless concerns regarding psychological well-being: A 35-year longitudinal study. *Journal of Educational Psychology*. https://doi.org/10.1037/edu0000500

Betts, G. (2004). Fostering autonomous learners through levels of differentiation. *Roeper Review*, *26*(4), 190–191. https://doi.org/10.1080/02783190409554269

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., Clarke, V., & Rance, N. (2015). How to use thematic analysis with interview data. In A. Vossler & N. Moller (Eds.), *The counselling and psychotherapy research handbook* (pp. 183–197). Sage Publications.

Brevik, L. M., & Gunnulfsen, A. E. (2016). Differensiert undervisning for høytpresterende elever med stort læringspotensial [Differentiated instruction for high achieving students with high learning potential]. *Acta Didactica Norge*, *10*(2), 212–234.

Børte, K., Lillejord, S., & Johansson, L. (2016). *Evnerike elever og elever med stort læringspotensial: En forskningsoppsummering* [Gifted students and students with high learning potential: A research summary]. Kunnskapssenter for utdanning.

Creswell, J. W. (2015). *A concise introduction to mixed methods research*. SAGE.

Cross, T. L. (2014). Social Emotional Needs: The Effects of Educational Malnourishment on the Psychological Well-Being of Gifted Students. *Gifted Child Today*, *37*(4), 264–265.

Dare, L., & Nowicki, E. (2019). Beliefs about educational acceleration: Students in inclusive classes conceptualize benefits, feelings, and barriers. *The Journal of Educational Research*, *112*(1), 86–97. https://doi.org/10.1080/00220671.2018.1440368

Frantz, R. S., & McClarty, K. L. (2016). Gifted education's reflection of country-specific cultural, political, and economic features. *Gifted and Talented International*, *31*(1), 46–58. https://doi.org/10.1080/15332276.2016.1220794

Gagné, F. (2004). Transforming gifts into talents: The DMGT as a developmental theory. *High Ability Studies*, *15*(2), 119–147. https://doi.org/10.1080/1359813042000314682

Gagné, F. (2015). Academic talent development programs: A best practices model. *Asia Pacific Education Review*, *16*(2), 281–295. https://doi.org/10.1007/s12564-015-9366-9

Gorard, S. (2001). *Quantitative methods in educational research: The role of numbers made easy.* Continuum.

Haug, P. (2020). Tilpassa opplæring [Adapted education]. In M. H. Olsen & P. Haug (Red.), *Tilpasset opplæring*. Cappelen Damm akademisk.

Hausstätter, R. S. (2012). Grenseoppgangen mellom tilpasset opplæring og spesialundervisning [The differentiation between adapted education and special education]. In R. S. Hausstätter (Ed.), *Inkluderende spesialundervisning*. Fagbokforlaget.

Herlofsen, C., & Nilsen, S. (2016). Spesialundervisning i spenningsfeltet mellom juridisk regelverk og lokal praksis [Special education in the borderline between legal regulations and local practices]. In K. Andenæs & J. Møller (Eds.), *Retten i skolen—Mellom pedagogikk juss og politikk.* Universitetsforlaget.

Hesse-Biber, S. (2010). Qualitative Approaches to Mixed Methods Practice. *Qualitative Inquiry*, *16*(6), 455–468. https://doi.org/10.1177/1077800410364611

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, *1*(2), 112–133. https://doi.org/10.1177/1558689806298224

Kim, M. (2016). A Meta-Analysis of the Effects of Enrichment Programs on Gifted Students. *Gifted Child Quarterly*, *60*(2), 102–116. https://doi.org/10.1177/0016986216630607

Kvale, S., & Brinkmann, S. (2015). *Det kvalitative forskningsintervju* [The qualitative research interview]. Gyldendal Akademisk.

Laine, S., Hotulainen, R., & Tirri, K. (2019). Finnish Elementary School Teachers' Attitudes Toward Gifted Education. *Roeper Review*, *41*(2), 76–87. http://dx.doi.org/10.1080/02783193.2019.1592794

Lee, S.-Y., Olszewski-Kubilius, P., & Peternel, G. (2010). The Efficacy of Academic Acceleration for Gifted Minority Students. *Gifted Child Quarterly*, *54*(3), 189–208. https://doi.org/10.1177/0016986210369256

Magnússon, G., & Sims, C. (2021). Inkludering och särskild begåvning. Förutsättningar och dilemman i rådgivande policydokument [Inclusion and giftedness. Prerequisites and dilemmas in advisory policy documents]. *Utbildning & Demokrati – tidskrift för didaktik och utbildningspolitk*, *30*(1). https://doi.org/10.48059/uod.v30i1.1553

Mattsson, L., & Bengmark, S. (2011). On Track to Gifted Education in Mathematics in Sweden. I B. Sriraman & K. H. Lee (Red.), *The Elements of Creativity and Giftedness in Mathematics* (s. 81–101). SensePublishers. https://doi.org/10.1007/978-94-6091-439-3_6

Mellroth, E., van Bommel, J., & Liljekvist, Y. (2019). Elementary teachers on orchestrating teaching for mathematically highly able pupils. *The Mathematics Enthusiast*, *16*(1–3), 127–153.

Missett, T. C., Brunner, M. M., Callahan, C. M., Moon, T. R., & Azano, A. P. (2014). Exploring Teacher Beliefs and Use of Acceleration, Ability Grouping, and Formative Assessment. *Journal for the Education of the Gifted*, *37*(3), 245–268.

Mönks, F. J., & Pflüger, R. (2005). *Gifted Education in 21 European Countries: Inventory and Perspective*. Radboud University Nijmegen. https://www.giftedforyou.eu/plovdiv-guide/17.pdf

Nordahl, T., & Ekspertgruppen for barn og unge med behov for særskilt tilretttelegging. (2018). *Inkluderende fellesskap for barn og unge* [Inclusive community for children and young people]. Fagbokforlaget. https://nettsteder.regjeringen.no/inkludering-barn-unge/files/2018/04/INKLUDERENDE-FELLESSKAP-FOR-BARN-OG-UNGE-til-publisering-04.04.18.pdf

Norwegian Directorate for Education and Training. (2014). *Veilederen spesialundervisning* [The guide for special education]. https://www.udir.no/laring-og-trivsel/sarskilte-behov/spesialundervisning/Spesialundervisning/

Norwegian Directorate for Education and Training. (2020a, June 18). *Kompetansepakke om elever med stort læringspotensial* [Guiding package for developing competence on students with high learning potential]. https://www.udir.no/laring-og-trivsel/lareplanverket/fagfornyelsen/kompetansepakke-om-elever-med-stort-laringspotensial/

Norwegian Directorate for Education and Training. (2020b). *Tilpasset opplæring* [Adapted education]. Retrieved November 5, 2020, from https://www.udir.no/laring-og-trivsel/tilpasset-opplaring/

Norwegian Directorate for Education and Training. (2020c, December 12). *Utdanningsspeilet 2020* [The Norwegian Education Mirror 2020]. https://www.udir.no/tall-og-forskning/finn-forskning/tema/utdanningsspeilet-2020/

NOU 2016: 14. (2016). *Mer å hente. Bedre læring for elever med stort læringspotensial* [Norwegian Official report 14: More to get – Better learning for students with great learning potential]. Kunnskapsdepartementet. https://www.regjeringen.no/no/dokumenter/nou-2016-14/id2511246/

Rasmussen, A., & Lingard, B. (2018). Excellence in education policies: Catering to the needs of gifted and talented or those of self-interest? *European Educational Research Journal*. https://doi.org/10.1177/1474904118771466

Reid, E., & Boettger, H. (2015). Gifted education in various countries of Europe. *Slavonic Pedagogical Studies Journal*, *4*, 158–171. https://doi.org/10.18355/PG.2015.4.2.158-171

Renzulli, J. S. (2012). Reexamining the Role of Gifted Education and Talent Development for the 21st Century. *Gifted Child Quarterly*, *56*(3), 150–159. https://doi.org/10.1177/0016986212444901

Renzulli, J. S., & Renzulli, S. R. (2010). The Schoolwide Enrichment Model: A Focus on Student Strengths and Interests. *Gifted Education International*, *26*(2–3), 140–156. https://doi.org/10.1177/026142941002600303

Silver, C. & Lewins, A. F. (2015). Computer-assisted analysis of qualitative research. In P. Leavy (Ed.), The Oxford handbook of qualitative research (pp. 606–638). Oxford University Press.

Steenbergen-Hu, S., Makel, M. C., & Olszewski-Kubilius, P. (2016). What One Hundred Years of Research Says About the Effects of Ability Grouping and Acceleration on K–12 Students' Academic Achievement: Findings of Two Second-Order Meta-Analyses. *Review of Educational Research*. https://doi.org/10.3102/0034654316675417

Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2011). Rethinking Giftedness and Gifted Education: A Proposed Direction Forward Based on Psychological Science.

Psychological Science in the Public Interest, *12*(1), 3–54. https://doi.org/10.1177/1529100611418056

The Education Act. (1998). Lov om grunnskolen og den vidaregåande opplæringa (LOV-1998- 07-17-61). https://lovdata.no/dokument/NL/lov/1998-07-17-61

Tirri, K. (2017). Teacher Education Is the Key to Changing the Identification and Teaching of the Gifted. *Roeper Review*, *39*(3), 210–212. https://doi.org/10.1080/02783193.2017.1318996

Traianou, A. (2015). The centrality of ethics in qualitative research. In P. Leavy (Ed.), *The Oxford handbook of qualitative research* (pp. 62–77). Oxford University Press.

Troxclair, D. A. (2013). Preservice Teacher Attitudes Toward Giftedness. *Roeper Review*, *35*(1), 58.

UNESCO. (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. United Nations Educational, Scientific and Cultural Organization. https://www.right-to-education.org/sites/right-to-education.org/files/resource-attachments/Salamanca_Statement_1994.pdf

VanTassel-Baska, J., & Hubbard, G. F. (2016). Classroom-Based Strategies for Advanced Learners in Rural Settings. *Journal of Advanced Academics*, *27*(4), 285–310. https://doi.org/10.1177/1932202X16657645

Vik, S., & Hausstätter, R. (2014). Fra “early intervention” til tidlig innsats [From “early intervention” to the Norwegian term “tidlig innsats”]. *Spesialpedagogikk*, *6*. https://utdanningsforskning.no/artikler/2014/fra-early-intervention-til-tidlig-innsats/

Wood, S., Portman, T. A. A., Cigrand, D. L., & Colangelo, N. (2010). School Counselors’ Perceptions and Experience With Acceleration as a Program Option for Gifted and Talented Students. *Gifted Child Quarterly*, *54*(3), 168–178. https://doi.org/10.1177/0016986210367940

Appendices

Appendix 1 Supplementary files

Factor Loadings from the Principal Axis Factoring

	1	2	3	Communalities
Willing to learn	**.687**	.074	-.291	.567
Diligent	**.666**	.045	-.300	.656
Social	**.591**	.065	.468	.661
Inquisitive	**.521**	.191	-.153	.398
Performs well at school	**.514**	.125	-.256	.407
Creative	**.454**	.287	.252	.545
Show an advanced language	**.450**	.386	-.229	.584
Introverted	-.364	**.601**	-.144	.613
Unsocial	-.417	**.600**	-.237	.601
Know-it-all	-.131	**.482**	.035	.385
Irritating	-.414	**.470**	.121	.416
Energetic	.365	**.395**	.320	.492
Silent	.197	**.385**	-.158	.287
Disruptive	-.369	**.380**	.241	.342
Extroverted	.415	.143	**.554**	.584

Codebook – Adapted education for gifted students in Norway

Codes and references in the teachers' answers to an open-ended survey question.

Name	Description and example	Teachers	References
Student codes	**Codes developed from the inductive thematic analysis of interviews with 17 gifted students**	0	0
Enrichment	*Adaption beyond what the rest of the class is working on* *Problem-solving, philosophical, and challenging assignments*	32	33
Discussions		0	0
Being an extra teacher	*Let them teach others what they know (be an extra teacher) without taking absolute control.*	4	4
Extra assignments	*When the original assignment is done, they will get new and more challenging assignments.*	3	3
Acceleration	*Faster progression in a subject* *In mathematic they get assignments from older students' curriculum when they have showed they know*	16	16

Name	Description and example	Teachers	References
	everything in the ordinary curriculum.		
Issues with acceleration		0	0
Group-work	*Group-work or projects where the gifted students get to work together. They often speak the same language and have a need to stretch themselves further.*	2	2
Skipping work	*Let them skip work they already know*	1	1
Grade-scores		0	0
Homework	*Adapted homework* *Homework on their level*	5	5
Motivation	*Don't let them work on more and more assignments on the same level, that will influence their motivation negatively*	2	2
Problematic Issues	*Ideally, I would make own assignments and give these students extra challenges. But, in praxis this is*	7	7

Name	Description and example	Teachers	References
	difficult to do, because of a large student-body. *You can give them extra challenges, but you don't have time to follow them up during a normal day.*		
Kept back		0	0
No instruction		0	0
Boring assignments		0	0
Grouping by levels	*I wish there was space to create groups on each grade so students with extraordinary learning potential could get their own instruction.*	4	4
Repetition	*Reduce all repetition and stuff that they easily learn by reading.*	3	3
Moving too slow		0	0
Varied instruction	*Vary instruction by using several teaching materials*	2	2

Name	Description and example	Teachers	References
Projects		0	0
Reflection	*Make space for students own reflection.* *More difficult assignments that also demands reflection and interpretation.*	3	3
Writing		0	0
Asking for help		0	0
Adapted education	*Adapted education* *Adapt the difficulty on assignments, more advanced reading, adapt assignments online, online materials in math etc.* *I wish to adapt the assignments so the student becomes motivated and need to challenge themselves.*	44	45
Challenges	*Challenging questions, assignments and homework* *Give them assignments with a more challenging wording, give them*	47	47

Name	Description and example	Teachers	References
	assignments I know will be challenging for them.		
Make your own challenges	*I often let the student themselves create their own questions.*	2	2
Teacher codes	**Codes generated from the teachers answer that did not fit any of the student codes.**	0	0
Digital tools	*When you use digital tools it is easier to differentiate the instruction in different levels.*	1	1
Student-teacher conference	*Talks with the student about the subject*	4	4
More teachers	*More teachers so there is space to work with the different students who need it.*	1	1
Support from teacher	*First and foremost give them support to show what they can achieve. Not all of these students have the structure and self-discipline to show their potential.* *Guidance and support if necessary.*	10	10

Name	Description and example	Teachers	References
More knowledge	*More knowledge in the subject for myself.*	1	1
Misunderstood the question	*Work with the goals in the IEP*	2	2
Social competence	*Emphasize social competence, cooperative skills and contact with the class.*	1	1
Special talents	*Utilize special talents in e.g., music when possible.*	1	1
Instructional practices	*Reverse teaching*	3	3

Note: Teachers represent the 108 individual teachers who answered the question. In some answers, the same code is counted twice on different elements in the answer, which is why some references have a higher count than teachers.

Appendix 2 Ethical approval

NSD NORSK SENTER FOR FORSKNINGSDATA

NSD sin vurdering

Prosjekttittel

Gifted Education in Norway

Referansenummer

260230

Registrert

02.09.2020 av Astrid Knutsdatter Lenvik - Astrid.Lenvik@uib.no

Behandlingsansvarlig institusjon

Universitetet i Bergen / Det psykologiske fakultet / Institutt for

pedagogikk **Prosjektansvarlig (vitenskapelig ansatt/veileder eller**

stipendiat) Astrid Lenvik, astrid.lenvik@uib.no, tlf: 41568194

Type prosjekt

Forskerprosjekt

Prosjektperiode

01.01.2017 - 31.12.2021

Status

07.09.2020 - Vurdert

Vurdering (1)

07.09.2020 - Vurdert

BAKGRUNN
Behandlingen av personopplysninger ble opprinnelig meldt inn til NSD 16.02.2017 (NSD sin ref: 53049) og vurdert under personopplysningsloven som var gjeldende på det tidspunktet.
02.09.2020 meldte prosjektleder inn en endring av prosjektet. Ny prosjektslutt vil være 31.12.2021. Materiale som inneholder personopplysninger vil deretter oppbevares til forskningsformål internt ved behandlingsansvarlig institusjon frem til 31.12.2022. De registrerte vil motta informasjon om utvidet prosjektperiode, om sine rettigheter og kontaktinformasjon til UiBs personvernombud.

Det er vår vurdering at behandlingen/hele prosjektet vil være i samsvar med den gjeldende personvernlovgivningen, så fremt den gjennomføres i tråd med det som er dokumentert i meldeskjemaet den 07.09.2020 med vedlegg, samt i meldingsdialogen mellom innmelder og NSD. Behandlingen kan fortsette.

MELD VESENTLIGE ENDRINGER
Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å

melde dette til NSD ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilke type endringer det er nødvendig å melde:
https://nsd.no/personvernombud/meld_prosjekt/meld_endringer.html

Du må vente på svar fra NSD før endringen gjennomføres.

TYPE OPPLYSNINGER OG VARIGHET
Prosjektet vil behandle alminnelige kategorier av personopplysninger frem til 31.12.2021. Materiale som inneholder personopplysninger vil deretter oppbevares til forskningsformål internt ved behandlingsansvarlig institusjon frem til 31.12.2022.

LOVLIG GRUNNLAG
Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse som kan dokumenteres, og som den registrerte kan trekke tilbake. Lovlig grunnlag for behandlingen vil dermed være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a.

PERSONVERNPRINSIPPER
NSD vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om:

- lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke viderebehandles til nye uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

DE REGISTRERTES RETTIGHETER
Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: åpenhet (art. 12), informasjon (art. 13), innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18), underretning (art. 19), dataportabilitet (art. 20).

NSD vurderer at informasjonen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER
NSD legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

Surveymonkey er databehandler i prosjektet. NSD legger til grunn at behandlingen oppfyller kravene til bruk av databehandler, jf. art 28 og 29.

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og eventuelt rådføre dere med behandlingsansvarlig institusjon.

OPPFØLGING AV PROSJEKTET
NSD vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Lykke til med prosjektet!

Kontaktperson hos NSD: Simon Gogl
Tlf. Personverntjenester: 55 58 21 17 (tast 1)

Appendix 3 Information letter for interview and survey

Appendix 3 Information letter for interview and survey

Forespørsel om deltakelse i forskningsprosjektet

"Gifted Education in Norway"

Bakgrunn og formål
Høsten 2016 startet jeg på mitt doktorgradsarbeid i spesialpedagogikk ved Universitetet i Bergen. Som en del av doktorgradsstudiet ønsker jeg å ha en kvalitativ intervjuundersøkelse av elever.
Formålet med dette doktorgradsstudiet er å undersøke hvilken opplevelse elever med ekstraordinært læringspotensial har i den norske skolen, hvilken kunnskap lærere har, og hvordan lærere tilrettelegger for elevgruppen. Doktorgradsstudiet blir gjennomført og finansiert ved Universitetet i Bergen, Det psykologiske fakultet, institutt for pedagogikk. Prosjektleder og doktorgradsstipendiat Astrid K. Lenvik er under veiledning av hovedveileder førsteamanuensis Lise Øen Jones og biveileder førsteamanuensis Elisabeth Hesjedal. Studien vil ta for seg intervjuer av ungdomsskoleelever, og spørreundersøkelse til lærere på barne- og ungdomsskoler.

Utvalget til intervjuundersøkelsen er basert på frivillig påmelding. Det er sendt ut informasjon om studien og ønsket om informanter gjennom mange ulike kanaler, heriblant Lykkelige barn, Facebook, Talentsentre og Mensa Norge.

Hva innebærer deltakelse i studien?
Deltakelse i studien innebærer å aktivt delta i et semistrukturert intervju med prosjektleder. I tillegg vil det bli gjennomført en WISC-IV evnetest for å kartlegge evnenivået til deltakerne. Hvis informanten har gjennomført en evnetest gjennom andre instanser (for eksempel BUP og PPT) vil den ikke bli gjennomført på nytt, men det vil da bli bedt om å få tilsendt kopi av testresultatet fra tidligere test. Testresultatet vil ikke bli brukt til noe annet enn det som er beskrevet her og vil bli anonymisert.

WISC-IV testen (ved behov) vil ta ca. 1 time, og intervjuet på ca. 1 – 1,5 time vil gjennomføres i etterkant av testen.

Spørsmålene i intervjuet vil være utforskende og handle om opplevelsen i skolen. Et semistrukturert intervju innebærer at spørsmålene ikke er faste, men at det er mulighet for å ta tak i det som informantene kommer med og gå videre på dette. Temaer som vil bli tatt opp er blant annet tilpasset opplæring, fungering i skolen (faglig og sosialt) og arbeidsstrategier. Intervjuet vil bli tatt opp på lydopptaker for å unngå misforståelser. Intervjuer vil også notere stikkord underveis.

Foreldre kan, etter forespørsel, få tilsendt intervjuguide.

Hva skjer med informasjonen om deg?
Alle personopplysninger er underlagt taushetsplikt og vil bli behandlet fortrolig. Lydfiler og tekstfiler vil anonymiseres og kodes. Kun prosjektleder vil ha tilgang til personopplysninger og koblingsnøkkel. Koblingsnøkkel vil oppbevares adskilt fra øvrige data.

Det er mulig å trekke seg fra prosjektet i etterkant, da vil lydfiler og tekstfiler bli slettet.
Resultatene av intervjuene vil bli publisert som artikler uten at den enkelte person kan gjenkjennes.

Prosjektet skal etter planen avsluttes 20.08.2020. Datamaterialet i form av tekstfiler, vil lagres utover dette, men koblingsnøkkel og lydfiler vil bli slettet. Det vil dermed ikke være mulig å trekke tilbake sitt samtykke etter denne dato. Datamaterialet vil kunne bli brukt i fremtidige publikasjoner også utover det som inngår i doktorgradsavhandlingen.

Frivillig deltakelse
Det er frivillig å delta i studien, og du kan trekke ditt samtykke uten å oppgi noen grunn frem til prosjektslutt. Dersom du trekker deg, vil alle opplysninger om deg bli slettet.

Studien er godkjent av Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Ved spørsmål knyttet til prosjektet, ta kontakt med

Astrid Lenvik
astrid.lenvik@uib.no
55582846

Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta

---

(Signert av prosjektdeltaker (elev), dato)

Jeg har mottatt informasjon om studien, og er villig til å la mitt barn delta

---

(Signert av foresatt, dato)

Interview guide

Research question: *How do Norwegian gifted secondary-school students experience their situation in school? How do they experience the adapted education, and what accommodation do they get in the adapted education? What strategies do they have in relation to learning and boredom in school?*

Age and gender

1. **Can you tell me a little bit about yourself?**
    a. **What do you like most about yourself?**
    b. **What do you like least about yourself?**
    c. **What do you like to do in your spare time?**
    d. **Can you tell me about some hobbies you have?**
2. **Can you tell me about your regular school day?**
    a. **What do you like best about school?**
    b. **What do you like least about school?**
    c. **Are you satisfied with your regular school day?**
    d. **What would you change if you could?**
    e. **If you could decide, how would you design an education for youth in secondary school?**
    f. **Absence? What do you do if you are not at school? Do you skip school?**
3. **How was primary school?**
    a. **Differences between primary and secondary?**
    b. **Did like primary or secondary best?**
4. **Can you describe your regular school week?**
5. **Which subjects do you like, and what is it that makes you like these subjects?**
    a. **Can you tell me when you get challenging work? What kind of assignments?**
    b. **Do you get any adaptions at school?**
6. **How do you work with school work and home work ?**
7. **Can you describe how you learn best?**
    a. **Can you tell me about a place you are when you are learning?**

8. **Complicity and participation: In the Education Act § 1-1 it says among others that: Students and apprentices shall learn to think critical and act ethical and with environmental concern. They shall have joint responsibility and a right to be complicit in their education. Can you describe how you experience complicity in school?**
9. **How are your grades?**
    a. **Would you say your grades are in line with what you can achieve at school?**
10. **How is your relation with your teachers?**
    a. **Are there someone you have a better relation with, why?**
11. **Have your teachers ever called you gifted/high potential/good at school?**
    a. **How was that experience?**
    b. **Does your teachers know of your potential?**
12. **How is your relation to your parents?**
13. **How are you thriving socially at school? Do you have good friends?**
    a. **Can you tell me a little about what you are doing when you are with your friends?**
14. **When you are in the classroom and you get a boring assignment, how do you feel or react?**
    a. **What do you think about your reactions?**
15. **When you get assignments that are challenging, how do you feel/react?**
    a. **How do you expect to cope with challenging assignments?**
16. **Have you ever been so engaged in an assignment that you have forgotten all about time and place?**
    a. **When have you experienced this? What kind of assignments did you do?**
    b. **Has this happened at school?**
17. **Are there any specific experiences you want to tell me?**
18. **Are there anything I haven't asked that you want to tell me?**

UNIVERSITETET I BERGEN
Det psykologiske fakultet

Elever med ekstraordinært læringspotensial

Forespørsel om deltakelse i forskningsprosjekt.

Kjære lærer

Forespørsel om deltakelse i forskningsprosjektet «*Elever med ekstraordinært læringspotensial i Norge*»

Høsten 2016 startet jeg på mitt doktorgradsarbeid i spesialpedagogikk ved Universitetet i Bergen. Som en del av doktorgradsstudiet ønsker jeg å ha en kvantitativ undersøkelse blant lærere.
Formålet med dette doktorgradsstudiet er å undersøke hvilken opplevelse elever med ekstraordinært læringspotensial har i den norske skolen, hvilken kunnskap lærere har, og hvordan lærere tilrettelegger for elevgruppen. Doktorgradsstudiet blir gjennomført og finansiert ved Universitetet i Bergen, det psykologiske fakultet, institutt for pedagogikk. Prosjektleder og doktorgradsstipendiat Astrid Lenvik er under veiledning av førsteamanuensis Lise Øen Jones og førsteamanuensis Elisabeth Hesjedal. Studien vil ta for seg intervjuer av ungdomsskoleelever, og spørreundersøkelse til lærere på barne- og ungdomsskoler.

Utvalget av lærere er basert på alle skoler registrert som barne- og ungdomsskoler på skoleporten.no. Skolene blir plukket ut og alle lærere på skolene vil få forespørsel om deltakelse.

Hva innebærer deltakelse i studien?
Deltakelse i studien innebærer for deres del å svare på en nettbasert spørreundersøkelse. Undersøkelsen tar ca. 15 minutter å besvare. Det vil ikke bli innhentet personlige opplysninger utover kjønn og år som yrkesaktiv lærer. Spørsmålene vil først og fremst omhandle kunnskap om elevgruppen, tilrettelegging, hvilke kjennetegn du mener er passende, og hvorvidt du har/har hatt elever du mener passer inn i betegnelsen.

Hva skjer med informasjonen om deg?
Alle personopplysninger vil bli behandlet konfidensielt. De eneste indirekte personopplysninger som lagres midlertidig er IP-adresser. IP-adressene vil ikke kobles til svarene, men kun brukes for å følge med på hvor mange svar som kommer fra hver skole. Hvis spørreundersøkelsen blir besvart mens du er koblet til skolens nettverk vil ikke IP-adressen være å anse som en indirekte personopplysning. All data vil anonymiseres og kvantifiseres. Det vil ikke være mulig å gjenkjenne enkeltdeltakere fra spørreundersøkelsen i publikasjonen.

Prosjektet skal etter planen avsluttes 20.08.2020. Datamaterialet vil lagres utover dette, men IP-adresser vil ikke bli lagret utover dette.

Frivillig deltakelse
Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn.

Dersom du har spørsmål til studien, ta kontakt med Astrid Lenvik, astrid.lenvik@uib.no, 55583980.

Studien er godkjent av Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta.

Besvarelse av spørreundersøkelsen blir regnet som aktivt samtykke.

Med vennlig hilsen

Astrid Lenvik

UNIVERSITETET I BERGEN
Det psykologiske fakultet

Elever med ekstraordinært læringspotensial

Velkommen til spørreundersøkelse om elever med ekstraordinært lærings

Tusen takk for at du deltar med dine betraktninger, det er et verdifullt bidrag i forskningen knyttet til denne gruppen elever. Det er viktig at du svarer ut i fra din egen oppfatning av fenomenet, og ikke det du tenker at andre ønsker å høre. Dine betraktninger er helt anonyme og vil ikke kunne spores tilbake til deg personlig, eller din skole.

Alle skoler som er med i undersøkelsen blir med i trekningen av en fagdag om elever med ekstraordinært læringspotensial med Astrid Lenvik, doktorgradsstipendiat.

I denne spørreundersøkelsen kommer begrepet «ekstraordinært læringspotensial» til å bli brukt. Dette begrepet dekker også begreper som begavet eller evnerik. Begrepet er i tråd med terminologien som ble brukt i NOU 2016:14 «Mer å hente, bedre læring for elever med stort læringspotensial».

Elever med ekstraordinært læringspotensial er elever med sterke behov og potensial innenfor akademiske fag som matematikk, lesing/skriving/språk, naturfag, teknologi, samfunnsvitenskap eller kreative/estetiske fag, og som kan transformere sitt potensial til talent kun dersom disse behovene blir identifisert og møtt i et rikt og responderende læringsmiljø. (Idsøe, 2014)

UNIVERSITETET I BERGEN
Det psykologiske fakultet

Elever med ekstraordinært læringspotensial

Bakgrunnsinformasjon

Informasjon om din utdannelse, erfaring som lærer og generell informasjon om skolen.

* 1. Kjønn?

- Mann
- Kvinne

* 2. Hvilken utdannelse har du?

- Lærerutdannelse (adjunkt)
- Lærerutdannelse med videreutdanning (adjunkt med opprykk)
- Lektor
- Lektor med videreutdanning
- Annet (vennligst spesifiser)

* 3. Hvor lenge har du praktisert som lærer?

* 4. Er du kontaktlærer?

- Ja
- Nei

* 5. Hvilket klassetrinn underviser du på?

* 6. Hvor mange elever er det på skolen din?

* 7. Hvilken eierform har skolen din?

- Offentlig
- Privat

* 8. Hvor mange innbyggere er det i kommunen til skolen din?

- Under 2000 innbyggere
- 2000 - 4999 innbyggere
- 5000 - 9999 innbyggere
- 10000 - 19999 innbyggere
- 20000 - 49999 innbyggere
- 50000 eller flere innbyggere

UNIVERSITETET I BERGEN
Det psykologiske fakultet

Elever med ekstraordinært læringspotensial

Elever med ekstraordinært læringspotensial i skolen

I denne delen av undersøkelsen får du spørsmål relatert til elever med ekstraordinært læringspotensial. Definisjonen på elever med ekstraordinært læringspotensial som blir brukt i denne undersøkelsen er: "Elever med ekstraordinært læringspotensial er elever med sterke behov og potensial innenfor akademiske fag som matematikk, lesing/skriving/språk, naturfag, teknologi, samfunnsvitenskap eller kreative/estetiske fag, og som kan transformere sitt potensial til talent kun dersom disse behovene blir identifisert og møtt i et rikt og responderende læringsmiljø". (Idsøe, 2014)

* 9. I hvilken grad er du enig eller uenig i at det er rom for å jobbe med differensierte oppgaver i skolen?

- Helt uenig
- Noe uenig
- Hverken enig eller uenig
- Noe enig
- Helt enig

* 10. I hvilken grad er du enig eller uenig i at du som lærer bruker differensierte oppgaver i undervisningen din?

- Helt uenig
- Noe uenig
- Hverken enig eller uenig
- Noe enig
- Helt enig

* 11. Hvor har du fått kunnskap om elever med ekstraordinært læringspotensial?

* 12. I hvilken grad er du enig eller uenig i at du har behov for mer kunnskap om elever med ekstraordinært læringspotensial?

- Helt uenig
- Noe uenig
- Hverken enig eller uenig
- Noe enig
- Helt enig

* 13. I hvilken grad trenger du mer kunnskap om tilrettelegging for elever med ekstraordinært læringspotensial?

- Ikke i det hele tatt
- I liten grad
- Hverken eller
- I medium grad
- I stor grad

14. Hva kjennetegner elever med ekstraordinært læringspotensial slik du ser det?

* 15. Her kommer det ulike påstander om elever med ekstraordinært læringspotensial som vi ønsker at du skal ta stilling til. Dette vil selvsagt variere fra elev til elev, men vi ønsker at du ut i fra din kjennskap til elevene skal vurdere påstandene. Hvis du har lite eller ingen erfaring med elevgruppen er det fint om du likevel svarer ut i fra dine tanker og meninger.

I hvilken grad er du enig eller uenig i at elever med ekstraordinært læringspotensial er:

	Helt enig	Noe enig	Hverken enig eller uenig	Noe uenig	Helt uenig
Skoleflinke	○	○	○	○	○
Urolige	○	○	○	○	○
Usosiale	○	○	○	○	○
Kreative	○	○	○	○	○
Energiske	○	○	○	○	○
Flittige	○	○	○	○	○
Undrende	○	○	○	○	○
Stille	○	○	○	○	○
Irriterende	○	○	○	○	○
Utadvendte	○	○	○	○	○
Sosiale	○	○	○	○	○
Viser et avansert språk	○	○	○	○	○
Bedrevitere	○	○	○	○	○
Lærevillige	○	○	○	○	○
Innadvendte	○	○	○	○	○

Elever med ekstraordinært læringspotensial

* 16. Har du hatt elever som du har vurdert til å ha ekstraordinært læringspotensial?

- ◯ Nei
- ◯ Ja

17. Hvis ja, hvor mange?

Antall	
Hvor mange gutter	
Hvor mange jenter	

* 18. Har du elever nå som du vurderer til å ha et ekstraordinært læringspotensial?

- ◯ Nei
- ◯ Ja

19. Hvis ja, hvor mange?

Antall	
Hvor mange gutter	
Hvor mange jenter	

* 20. I hvilken grad er du enig eller uenig i at elever med ekstraordinært læringspotensial trenger tilrettelegging utover den ordinære tilpassede opplæringen?

- Helt uenig
- Noe uenig
- Hverken enig eller uenig
- Noe enig
- Helt enig

* 21. I hvilken grad er du enig eller uenig i at skolen som system gir rom for å tilrettelegge for elever med ekstraordinært læringspotensial i den ordinære opplæringen?

- Helt uenig
- Noe uenig
- Hverken enig eller uenig
- Noe enig
- Helt enig

* 22. I hvilken grad er du enig eller uenig i at skolen som system prioriterer tilrettelegging for elever med ekstraordinært læringspotensial?

- Helt uenig
- Noe uenig
- Hverken enig eller uenig
- Noe enig
- Helt enig

23. Hva slags faglig tilrettelegging vil du som lærer gi til elever med ekstraordinært læringspotensial?

* 24. Hvordan har elevene med ekstraordinært læringspotensial blitt identifisert? Flere svar mulig.

- [ ] Har ikke hatt elever med ekstraordinært læringspotensial
- [ ] Har identifisert dem selv
- [ ] Andre lærere har identifisert dem
- [ ] Foreldre har identifisert dem
- [ ] Eleven selv har sagt det
- [ ] PPT/BUP eller andre fagfolk har identifisert dem
- [ ] Annet (vennligst spesifiser)

25. Har du noen utfyllende kommentarer?

UNIVERSITETET I BERGEN
Det psykologiske fakultet

Elever med ekstraordinært læringspotensial

Tusen takk!

Tusen takk for din deltagelse på spørreundersøkelsen om elever med ekstraordinært læringspotensial. Hvis du har kommentarer eller annet du ønsker å formidle er det mulig å ta kontakt med astrid.lenvik@uib.no. Det som blir formidlet der vil ikke bli tatt med i datagrunnlaget.

Vennlig Hilsen
Astrid Lenvik

Doctoral Theses at The Faculty of Psychology, University of Bergen

1980	Allen, Hugh M., Dr. philos.	Parent-offspring interactions in willow grouse (Lagopus L. Lagopus).
1981	Myhrer, Trond, Dr. philos.	Behavioral Studies after selective disruption of hippocampal inputs in albino rats.
1982	Svebak, Sven, Dr. philos.	The significance of motivation for task-induced tonic physiological changes.
1983	Myhre, Grete, Dr. philos.	The Biopsychology of behavior in captive Willow ptarmigan.
	Eide, Rolf, Dr. philos.	PSYCHOSOCIAL FACTORS AND INDICES OF HEALTH RISKS. The relationship of psychosocial conditions to subjective complaints, arterial blood pressure, serum cholesterol, serum triglycerides and urinary catecholamines in middle aged populations in Western Norway.
	Værnes, Ragnar J., Dr. philos.	Neuropsychological effects of diving.
1984	Kolstad, Arnulf, Dr. philos.	Til diskusjonen om sammenhengen mellom sosiale forhold og psykiske strukturer. En epidemiologisk undersøkelse blant barn og unge.
	Løberg, Tor, Dr. philos.	Neuropsychological assessment in alcohol dependence.
1985	Hellesnes, Tore, Dr. philos.	Læring og problemløsning. En studie av den perseptuelle analysens betydning for verbal læring.
	Håland, Wenche, Dr. philos.	Psykoterapi: relasjon, utviklingsprosess og effekt.
1986	Hagtvet, Knut A., Dr. philos.	The construct of test anxiety: Conceptual and methodological issues.
	Jellestad, Finn K., Dr. philos.	Effects of neuron specific amygdala lesions on fear-motivated behavior in rats.
1987	Aarø, Leif E., Dr. philos.	Health behaviour and sosioeconomic Status. A survey among the adult population in Norway.
	Underlid, Kjell, Dr. philos.	Arbeidsløyse i psykososialt perspektiv.
	Laberg, Jon C., Dr. philos.	Expectancy and classical conditioning in alcoholics' craving.
	Vollmer, Fred, Dr. philos.	Essays on explanation in psychology.
	Ellertsen, Bjørn, Dr. philos.	Migraine and tension headache: Psychophysiology, personality and therapy.
1988	Kaufmann, Astrid, Dr. philos.	Antisosial atferd hos ungdom. En studie av psykologiske determinanter.

	Mykletun, Reidar J., Dr. philos.	Teacher stress: personality, work-load and health.
	Havik, Odd E., Dr. philos.	After the myocardial infarction: A medical and psychological study with special emphasis on perceived illness.
1989	Bråten, Stein, Dr. philos.	Menneskedyaden. En teoretisk tese om sinnets dialogiske natur med informasjons- og utviklingspsykologiske implikasjoner sammenholdt med utvalgte spedbarnsstudier.
	Wold, Bente, Dr. psychol.	Lifestyles and physical activity. A theoretical and empirical analysis of socialization among children and adolescents.
1990	Flaten, Magne A., Dr. psychol.	The role of habituation and learning in reflex modification.
1991	Alsaker, Françoise D., Dr. philos.	Global negative self-evaluations in early adolescence.
	Kraft, Pål, Dr. philos.	AIDS prevention in Norway. Empirical studies on diffusion of knowledge, public opinion, and sexual behaviour.
	Endresen, Inger M., Dr. philos.	Psychoimmuniological stress markers in working life.
	Faleide, Asbjørn O., Dr. philos.	Asthma and allergy in childhood. Psychosocial and psychotherapeutic problems.
1992	Dalen, Knut, Dr. philos.	Hemispheric asymmetry and the Dual-Task Paradigm: An experimental approach.
	Bø, Inge B., Dr. philos.	Ungdoms sosiale økologi. En undersøkelse av 14-16 åringers sosiale nettverk.
	Nivison, Mary E., Dr. philos.	The relationship between noise as an experimental and environmental stressor, physiological changes and psychological factors.
	Torgersen, Anne M., Dr. philos.	Genetic and environmental influence on temperamental behaviour. A longitudinal study of twins from infancy to adolescence.
1993	Larsen, Svein, Dr. philos.	Cultural background and problem drinking.
	Nordhus, Inger Hilde, Dr. philos.	Family caregiving. A community psychological study with special emphasis on clinical interventions.
	Thuen, Frode, Dr. psychol.	Accident-related behaviour among children and young adolescents: Prediction and prevention.
	Solheim, Ragnar, Dr. philos.	Spesifikke lærevansker. Diskrepanskriteriet anvendt i seleksjonsmetodikk.
	Johnsen, Bjørn Helge, Dr. psychol.	Brain assymetry and facial emotional expressions: Conditioning experiments.
1994	Tønnessen, Finn E., Dr. philos.	The etiology of Dyslexia.
	Kvale, Gerd, Dr. psychol.	Psychological factors in anticipatory nausea and vomiting in cancer chemotherapy.
	Asbjørnsen, Arve E., Dr. psychol.	Structural and dynamic factors in dichotic listening: An interactional model.

	Bru, Edvin, Dr. philos.	The role of psychological factors in neck, shoulder and low back pain among female hospitale staff.
	Braathen, Eli T., Dr. psychol.	Prediction of exellence and discontinuation in different types of sport: The significance of motivation and EMG.
	Johannessen, Birte F., Dr. philos.	Det flytende kjønnet. Om lederskap, politikk og identitet.
1995	Sam, David L., Dr. psychol.	Acculturation of young immigrants in Norway: A psychological and socio-cultural adaptation.
	Bjaalid, Inger-Kristin, Dr. philos.	Component processes in word recognition.
	Martinsen, Øyvind, Dr. philos.	Cognitive style and insight.
	Nordby, Helge, Dr. philos.	Processing of auditory deviant events: Mismatch negativity of event-related brain potentials.
	Raaheim, Arild, Dr. philos.	Health perception and health behaviour, theoretical considerations, empirical studies, and practical implications.
	Seltzer, Wencke J., Dr. philos.	Studies of Psychocultural Approach to Families in Therapy.
	Brun, Wibecke, Dr. philos.	Subjective conceptions of uncertainty and risk.
	Aas, Henrik N., Dr. psychol.	Alcohol expectancies and socialization: Adolescents learning to drink.
	Bjørkly, Stål, Dr. psychol.	Diagnosis and prediction of intra-institutional aggressive behaviour in psychotic patients
1996	Anderssen, Norman, Dr. psychol.	Physical activity of young people in a health perspective: Stability, change and social influences.
	Sandal, Gro Mjeldheim, Dr. psychol.	Coping in extreme environments: The role of personality.
	Strumse, Einar, Dr. philos.	The psychology of aesthetics: explaining visual preferences for agrarian landscapes in Western Norway.
	Hestad, Knut, Dr. philos.	Neuropsychological deficits in HIV-1 infection.
	Lugoe, L.Wycliffe, Dr. philos.	Prediction of Tanzanian students' HIV risk and preventive behaviours
	Sandvik, B. Gunnhild, Dr. philos.	Fra distriktsjordmor til institusjonsjordmor. Fremveksten av en profesjon og en profesjonsutdanning
	Lie, Gro Therese, Dr. psychol.	The disease that dares not speak its name: Studies on factors of importance for coping with HIV/AIDS in Northern Tanzania
	Øygard, Lisbet, Dr. philos.	Health behaviors among young adults. A psychological and sociological approach
	Stormark, Kjell Morten, Dr. psychol.	Emotional modulation of selective attention: Experimental and clinical evidence.
	Einarsen, Ståle, Dr. psychol.	Bullying and harassment at work: epidemiological and psychosocial aspects.

1997	Knivsberg, Ann-Mari, Dr. philos.	Behavioural abnormalities and childhood psychopathology: Urinary peptide patterns as a potential tool in diagnosis and remediation.
	Eide, Arne H., Dr. philos.	Adolescent drug use in Zimbabwe. Cultural orientation in a global-local perspective and use of psychoactive substances among secondary school students.
	Sørensen, Marit, Dr. philos.	The psychology of initiating and maintaining exercise and diet behaviour.
	Skjæveland, Oddvar, Dr. psychol.	Relationships between spatial-physical neighborhood attributes and social relations among neighbors.
	Zewdie, Teka, Dr. philos.	Mother-child relational patterns in Ethiopia. Issues of developmental theories and intervention programs.
	Wilhelmsen, Britt Unni, Dr. philos.	Development and evaluation of two educational programmes designed to prevent alcohol use among adolescents.
	Manger, Terje, Dr. philos.	Gender differences in mathematical achievement among Norwegian elementary school students.
1998 **V**	Lindstrøm, Torill Christine, Dr. philos.	«Good Grief»: Adapting to Bereavement.
	Skogstad, Anders, Dr. philos.	Effects of leadership behaviour on job satisfaction, health and efficiency.
	Haldorsen, Ellen M. Håland, Dr. psychol.	Return to work in low back pain patients.
	Besemer, Susan P., Dr. philos.	Creative Product Analysis: The Search for a Valid Model for Understanding Creativity in Products.
H	Winje, Dagfinn, Dr. psychol.	Psychological adjustment after severe trauma. A longitudinal study of adults' and children's posttraumatic reactions and coping after the bus accident in Måbødalen, Norway 1988.
	Vosburg, Suzanne K., Dr. philos.	The effects of mood on creative problem solving.
	Eriksen, Hege R., Dr. philos.	Stress and coping: Does it really matter for subjective health complaints?
	Jakobsen, Reidar, Dr. psychol.	Empiriske studier av kunnskap og holdninger om hiv/aids og den normative seksuelle utvikling i ungdomsårene.
1999 **V**	Mikkelsen, Aslaug, Dr. philos.	Effects of learning opportunities and learning climate on occupational health.
	Samdal, Oddrun, Dr. philos.	The school environment as a risk or resource for students' health-related behaviours and subjective well-being.
	Friestad, Christine, Dr. philos.	Social psychological approaches to smoking.
	Ekeland, Tor-Johan, Dr. philos.	Meining som medisin. Ein analyse av placebofenomenet og implikasjoner for terapi og terapeutiske teoriar.
H	Saban, Sara, Dr. psychol.	Brain Asymmetry and Attention: Classical Conditioning Experiments.

	Carlsten, Carl Thomas, Dr. philos.	God lesing – God læring. En aksjonsrettet studie av undervisning i fagtekstlesing.
	Dundas, Ingrid, Dr. psychol.	Functional and dysfunctional closeness. Family interaction and children's adjustment.
	Engen, Liv, Dr. philos.	Kartlegging av leseferdighet på småskoletrinnet og vurdering av faktorer som kan være av betydning for optimal leseutvikling.
2000 V	Hovland, Ole Johan, Dr. philos.	Transforming a self-preserving "alarm" reaction into a self-defeating emotional response: Toward an integrative approach to anxiety as a human phenomenon.
	Lillejord, Sølvi, Dr. philos.	Handlingsrasjonalitet og spesialundervisning. En analyse av aktørperspektiver.
	Sandell, Ove, Dr. philos.	Den varme kunnskapen.
	Oftedal, Marit Petersen, Dr. philos.	Diagnostisering av ordavkodingsvansker: En prosessanalytisk tilnærmingsmåte.
H	Sandbak, Tone, Dr. psychol.	Alcohol consumption and preference in the rat: The significance of individual differences and relationships to stress pathology
	Eid, Jarle, Dr. psychol.	Early predictors of PTSD symptom reporting; The significance of contextual and individual factors.
2001 V	Skinstad, Anne Helene, Dr. philos.	Substance dependence and borderline personality disorders.
	Binder, Per-Einar, Dr. psychol.	Individet og den meningsbærende andre. En teoretisk undersøkelse av de mellommenneskelige forutsetningene for psykisk liv og utvikling med utgangspunkt i Donald Winnicotts teori.
	Roald, Ingvild K., Dr. philos.	Building of concepts. A study of Physics concepts of Norwegian deaf students.
H	Fekadu, Zelalem W., Dr. philos.	Predicting contraceptive use and intention among a sample of adolescent girls. An application of the theory of planned behaviour in Ethiopian context.
	Melesse, Fantu, Dr. philos.	The more intelligent and sensitive child (MISC) mediational intervention in an Ethiopian context: An evaluation study.
	Råheim, Målfrid, Dr. philos.	Kvinners kroppserfaring og livssammenheng. En fenomenologisk – hermeneutisk studie av friske kvinner og kvinner med kroniske muskelsmerter.
	Engelsen, Birthe Kari, Dr. psychol.	Measurement of the eating problem construct.
	Lau, Bjørn, Dr. philos.	Weight and eating concerns in adolescence.
2002 V	Ihlebæk, Camilla, Dr. philos.	Epidemiological studies of subjective health complaints.
	Rosén, Gunnar O. R., Dr. philos.	The phantom limb experience. Models for understanding and treatment of pain with hypnosis.

	Høines, Marit Johnsen, Dr. philos.	Fleksible språkrom. Matematikklæring som tekstutvikling.
	Anthun, Roald Andor, Dr. philos.	School psychology service quality. Consumer appraisal, quality dimensions, and collaborative improvement potential
	Pallesen, Ståle, Dr. psychol.	Insomnia in the elderly. Epidemiology, psychological characteristics and treatment.
	Midthassel, Unni Vere, Dr. philos.	Teacher involvement in school development activity. A study of teachers in Norwegian compulsory schools
	Kallestad, Jan Helge, Dr. philos.	Teachers, schools and implementation of the Olweus Bullying Prevention Program.
H	Ofte, Sonja Helgesen, Dr. psychol.	Right-left discrimination in adults and children.
	Netland, Marit, Dr. psychol.	Exposure to political violence. The need to estimate our estimations.
	Diseth, Åge, Dr. psychol.	Approaches to learning: Validity and prediction of academic performance.
	Bjuland, Raymond, Dr. philos.	Problem solving in geometry. Reasoning processes of student teachers working in small groups: A dialogical approach.
2003 V	Arefjord, Kjersti, Dr. psychol.	After the myocardial infarction – the wives' view. Short- and long-term adjustment in wives of myocardial infarction patients.
	Ingjaldsson, Jón Þorvaldur, Dr. psychol.	Unconscious Processes and Vagal Activity in Alcohol Dependency.
	Holden, Børge, Dr. philos.	Følger av atferdsanalytiske forklaringer for atferdsanalysens tilnærming til utforming av behandling.
	Holsen, Ingrid, Dr. philos.	Depressed mood from adolescence to 'emerging adulthood'. Course and longitudinal influences of body image and parent-adolescent relationship.
	Hammar, Åsa Karin, Dr. psychol.	Major depression and cognitive dysfunction- An experimental study of the cognitive effort hypothesis.
	Sprugevica, Ieva, Dr. philos.	The impact of enabling skills on early reading acquisition.
	Gabrielsen, Egil, Dr. philos.	LESE FOR LIVET. Lesekompetansen i den norske voksenbefolkningen sett i lys av visjonen om en enhetsskole.
H	Hansen, Anita Lill, Dr. psychol.	The influence of heart rate variability in the regulation of attentional and memory processes.
	Dyregrov, Kari, Dr. philos.	The loss of child by suicide, SIDS, and accidents: Consequences, needs and provisions of help.
2004 V	Torsheim, Torbjørn, Dr. psychol.	Student role strain and subjective health complaints: Individual, contextual, and longitudinal perspectives.
	Haugland, Bente Storm Mowatt Dr. psychol.	Parental alcohol abuse. Family functioning and child adjustment.

	Milde, Anne Marita, Dr. psychol.	Ulcerative colitis and the role of stress. Animal studies of psychobiological factors in relationship to experimentally induced colitis.
	Stornes, Tor, Dr. philos.	Socio-moral behaviour in sport. An investigation of perceptions of sportspersonship in handball related to important factors of socio-moral influence.
	Mæhle, Magne, Dr. philos.	Re-inventing the child in family therapy: An investigation of the relevance and applicability of theory and research in child development for family therapy involving children.
	Kobbeltvedt, Therese, Dr. psychol.	Risk and feelings: A field approach.
2004 H	Thomsen, Tormod, Dr. psychol.	Localization of attention in the brain.
	Løberg, Else-Marie, Dr. psychol.	Functional laterality and attention modulation in schizophrenia: Effects of clinical variables.
	Kyrkjebø, Jane Mikkelsen, Dr. philos.	Learning to improve: Integrating continuous quality improvement learning into nursing education.
	Laumann, Karin, Dr. psychol.	Restorative and stress-reducing effects of natural environments: Experiencal, behavioural and cardiovascular indices.
	Holgersen, Helge, PhD	Mellom oss - Essay i relasjonell psykoanalyse.
2005 V	Hetland, Hilde, Dr. psychol.	Leading to the extraordinary? Antecedents and outcomes of transformational leadership.
	Iversen, Anette Christine, Dr. philos.	Social differences in health behaviour: the motivational role of perceived control and coping.
2005 H	Mathisen, Gro Ellen, PhD	Climates for creativity and innovation: Definitions, measurement, predictors and consequences.
	Sævi, Tone, Dr. philos.	Seeing disability pedagogically – The lived experience of disability in the pedagogical encounter.
	Wiium, Nora, PhD	Intrapersonal factors, family and school norms: combined and interactive influence on adolescent smoking behaviour.
	Kanagaratnam, Pushpa, PhD	Subjective and objective correlates of Posttraumatic Stress in immigrants/refugees exposed to political violence.
	Larsen, Torill M. B. , PhD	Evaluating principals` and teachers` implementation of Second Step. A case study of four Norwegian primary schools.
	Bancila, Delia, PhD	Psychosocial stress and distress among Romanian adolescents and adults.
2006 V	Hillestad, Torgeir Martin, Dr. philos.	Normalitet og avvik. Forutsetninger for et objektivt psykopatologisk avviksbegrep. En psykologisk, sosial, erkjennelsesteoretisk og teorihistorisk framstilling.
	Nordanger, Dag Øystein, Dr. psychol.	Psychosocial discourses and responses to political violence in post-war Tigray, Ethiopia.

	Rimol, Lars Morten, PhD	Behavioral and fMRI studies of auditory laterality and speech sound processing.
	Krumsvik, Rune Johan, Dr. philos.	ICT in the school. ICT-initiated school development in lower secondary school.
	Norman, Elisabeth, Dr. psychol.	Gut feelings and unconscious thought: An exploration of fringe consiousness in implicit cognition.
	Israel, K Pravin, Dr. psychol.	Parent involvement in the mental health care of children and adolescents. Emperical studies from clinical care setting.
	Glasø, Lars, PhD	Affects and emotional regulation in leader-subordinate relationships.
	Knutsen, Ketil, Dr. philos.	HISTORIER UNGDOM LEVER – En studie av hvordan ungdommer bruker historie for å gjøre livet meningsfullt.
	Matthiesen, Stig Berge, PhD	Bullying at work. Antecedents and outcomes.
2006 H	Gramstad, Arne, PhD	Neuropsychological assessment of cognitive and emotional functioning in patients with epilepsy.
	Bendixen, Mons, PhD	Antisocial behaviour in early adolescence: Methodological and substantive issues.
	Mrumbi, Khalifa Maulid, PhD	Parental illness and loss to HIV/AIDS as experienced by AIDS orphans aged between 12-17 years from Temeke District, Dar es Salaam, Tanzania: A study of the children's psychosocial health and coping responses.
	Hetland, Jørn, Dr. psychol.	The nature of subjective health complaints in adolescence: Dimensionality, stability, and psychosocial predictors
	Kakoko, Deodatus Conatus Vitalis, PhD	Voluntary HIV counselling and testing service uptake among primary school teachers in Mwanza, Tanzania: assessment of socio-demographic, psychosocial and socio-cognitive aspects
	Mykletun, Arnstein, Dr. psychol.	Mortality and work-related disability as long-term consequences of anxiety and depression: Historical cohort designs based on the HUNT-2 study
	Sivertsen, Børge, PhD	Insomnia in older adults. Consequences, assessment and treatment.
2007 V	Singhammer, John, Dr. philos.	Social conditions from before birth to early adulthood – the influence on health and health behaviour
	Janvin, Carmen Ani Cristea, PhD	Cognitive impairment in patients with Parkinson's disease: profiles and implications for prognosis
	Braarud, Hanne Cecilie, Dr.psychol.	Infant regulation of distress: A longitudinal study of transactions between mothers and infants
	Tveito, Torill Helene, PhD	Sick Leave and Subjective Health Complaints
	Magnussen, Liv Heide, PhD	Returning disability pensioners with back pain to work

	Thuen, Elin Marie, Dr.philos.	Learning environment, students' coping styles and emotional and behavioural problems. A study of Norwegian secondary school students.
	Solberg, Ole Asbjørn, PhD	Peacekeeping warriors – A longitudinal study of Norwegian peacekeepers in Kosovo
2007 H	Søreide, Gunn Elisabeth, Dr.philos.	Narrative construction of teacher identity
	Svensen, Erling, PhD	WORK & HEALTH. Cognitive Activation Theory of Stress applied in an organisational setting.
	Øverland, Simon Nygaard, PhD	Mental health and impairment in disability benefits. Studies applying linkages between health surveys and administrative registries.
	Eichele, Tom, PhD	Electrophysiological and Hemodynamic Correlates of Expectancy in Target Processing
	Børhaug, Kjetil, Dr.philos.	Oppseding til demokrati. Ein studie av politisk oppseding i norsk skule.
	Eikeland, Thorleif, Dr.philos.	Om å vokse opp på barnehjem og på sykehus. En undersøkelse av barnehjemsbarns opplevelser på barnehjem sammenholdt med sanatoriebarns beskrivelse av langvarige sykehusopphold – og et forsøk på forklaring.
	Wadel, Carl Cato, Dr.philos.	Medarbeidersamhandling og medarbeiderledelse i en lagbasert organisasjon
	Vinje, Hege Forbech, PhD	Thriving despite adversity: Job engagement and self-care among community nurses
	Noort, Maurits van den, PhD	Working memory capacity and foreign language acquisition
2008 V	Breivik, Kyrre, Dr.psychol.	The Adjustment of Children and Adolescents in Different Post-Divorce Family Structures. A Norwegian Study of Risks and Mechanisms.
	Johnsen, Grethe E., PhD	Memory impairment in patients with posttraumatic stress disorder
	Sætrevik, Bjørn, PhD	Cognitive Control in Auditory Processing
	Carvalhosa, Susana Fonseca, PhD	Prevention of bullying in schools: an ecological model
2008 H	Brønnick, Kolbjørn Selvåg	Attentional dysfunction in dementia associated with Parkinson's disease.
	Posserud, Maj-Britt Rocio	Epidemiology of autism spectrum disorders
	Haug, Ellen	Multilevel correlates of physical activity in the school setting
	Skjerve, Arvid	Assessing mild dementia – a study of brief cognitive tests.

	Kjønniksen, Lise	The association between adolescent experiences in physical activity and leisure time physical activity in adulthood: a ten year longitudinal study
	Gundersen, Hilde	The effects of alcohol and expectancy on brain function
	Omvik, Siri	Insomnia – a night and day problem
2009 V	Molde, Helge	Pathological gambling: prevalence, mechanisms and treatment outcome.
	Foss, Else	Den omsorgsfulle væremåte. En studie av voksnes væremåte i forhold til barn i barnehagen.
	Westrheim, Kariane	Education in a Political Context: A study of Konwledge Processes and Learning Sites in the PKK.
	Wehling, Eike	Cognitive and olfactory changes in aging
	Wangberg, Silje C.	Internet based interventions to support health behaviours: The role of self-efficacy.
	Nielsen, Morten B.	Methodological issues in research on workplace bullying. Operationalisations, measurements and samples.
	Sandu, Anca Larisa	MRI measures of brain volume and cortical complexity in clinical groups and during development.
	Guribye, Eugene	Refugees and mental health interventions
	Sørensen, Lin	Emotional problems in inattentive children – effects on cognitive control functions.
	Tjomsland, Hege E.	Health promotion with teachers. Evaluation of the Norwegian Network of Health Promoting Schools: Quantitative and qualitative analyses of predisposing, reinforcing and enabling conditions related to teacher participation and program sustainability.
	Helleve, Ingrid	Productive interactions in ICT supported communities of learners
2009 H	Skorpen, Aina Øye, Christine	Dagliglivet i en psykiatrisk institusjon: En analyse av miljøterapeutiske praksiser
	Andreassen, Cecilie Schou	WORKAHOLISM – Antecedents and Outcomes
	Stang, Ingun	Being in the same boat: An empowerment intervention in breast cancer self-help groups
	Sequeira, Sarah Dorothee Dos Santos	The effects of background noise on asymmetrical speech perception
	Kleiven, Jo, dr.philos.	The Lillehammer scales: Measuring common motives for vacation and leisure behavior
	Jónsdóttir, Guðrún	Dubito ergo sum? Ni jenter møter naturfaglig kunnskap.
	Hove, Oddbjørn	Mental health disorders in adults with intellectual disabilities - Methods of assessment and prevalence of mental health disorders and problem behaviour
	Wageningen, Heidi Karin van	The role of glutamate on brain function

	Bjørkvik, Jofrid	God nok? Selvaktelse og interpersonlig fungering hos pasienter innen psykisk helsevern: Forholdet til diagnoser, symptomer og behandlingsutbytte
	Andersson, Martin	A study of attention control in children and elderly using a forced-attention dichotic listening paradigm
	Almås, Aslaug Grov	Teachers in the Digital Network Society: Visions and Realities. A study of teachers' experiences with the use of ICT in teaching and learning.
	Ulvik, Marit	Lærerutdanning som danning? Tre stemmer i diskusjonen
2010 V	Skår, Randi	Læringsprosesser i sykepleieres profesjonsutøvelse. En studie av sykepleieres læringserfaringer.
	Roald, Knut	Kvalitetsvurdering som organisasjonslæring mellom skole og skoleeigar
	Lunde, Linn-Heidi	Chronic pain in older adults. Consequences, assessment and treatment.
	Danielsen, Anne Grete	Perceived psychosocial support, students' self-reported academic initiative and perceived life satisfaction
	Hysing, Mari	Mental health in children with chronic illness
	Olsen, Olav Kjellevold	Are good leaders moral leaders? The relationship between effective military operational leadership and morals
	Riese, Hanne	Friendship and learning. Entrepreneurship education through mini-enterprises.
	Holthe, Asle	Evaluating the implementation of the Norwegian guidelines for healthy school meals: A case study involving three secondary schools
H	Hauge, Lars Johan	Environmental antecedents of workplace bullying: A multi-design approach
	Bjørkelo, Brita	Whistleblowing at work: Antecedents and consequences
	Reme, Silje Endresen	Common Complaints – Common Cure? Psychiatric comorbidity and predictors of treatment outcome in low back pain and irritable bowel syndrome
	Helland, Wenche Andersen	Communication difficulties in children identified with psychiatric problems
	Beneventi, Harald	Neuronal correlates of working memory in dyslexia
	Thygesen, Elin	Subjective health and coping in care-dependent old persons living at home
	Aanes, Mette Marthinussen	Poor social relationships as a threat to belongingness needs. Interpersonal stress and subjective health complaints: Mediating and moderating factors.
	Anker, Morten Gustav	Client directed outcome informed couple therapy

	Bull, Torill	Combining employment and child care: The subjective well-being of single women in Scandinavia and in Southern Europe
	Viig, Nina Grieg	Tilrettelegging for læreres deltakelse i helsefremmende arbeid. En kvalitativ og kvantitativ analyse av sammenhengen mellom organisatoriske forhold og læreres deltakelse i utvikling og implementering av Europeisk Nettverk av Helsefremmende Skoler i Norge
	Wolff, Katharina	To know or not to know? Attitudes towards receiving genetic information among patients and the general public.
	Ogden, Terje, dr.philos.	Familiebasert behandling av alvorlige atferdsproblemer blant barn og ungdom. Evaluering og implementering av evidensbaserte behandlingsprogrammer i Norge.
	Solberg, Mona Elin	Self-reported bullying and victimisation at school: Prevalence, overlap and psychosocial adjustment.
2011 V	Bye, Hege Høivik	Self-presentation in job interviews. Individual and cultural differences in applicant self-presentation during job interviews and hiring managers' evaluation
	Notelaers, Guy	Workplace bullying. A risk control perspective.
	Moltu, Christian	Being a therapist in difficult therapeutic impasses. A hermeneutic phenomenological analysis of skilled psychotherapists' experiences, needs, and strategies in difficult therapies ending well.
	Myrseth, Helga	Pathological Gambling - Treatment and Personality Factors
	Schanche, Elisabeth	From self-criticism to self-compassion. An empirical investigation of hypothesized change prosesses in the Affect Phobia Treatment Model of short-term dynamic psychotherapy for patients with Cluster C personality disorders.
	Våpenstad, Eystein Victor, dr.philos.	Det tempererte nærvær. En teoretisk undersøkelse av psykoterapautens subjektivitet i psykoanalyse og psykoanalytisk psykoterapi.
	Haukebø, Kristin	Cognitive, behavioral and neural correlates of dental and intra-oral injection phobia. Results from one treatment and one fMRI study of randomized, controlled design.
	Harris, Anette	Adaptation and health in extreme and isolated environments. From 78°N to 75°S.
	Bjørknes, Ragnhild	Parent Management Training-Oregon Model: intervention effects on maternal practice and child behavior in ethnic minority families
	Mamen, Asgeir	Aspects of using physical training in patients with substance dependence and additional mental distress
	Espevik, Roar	Expert teams: Do shared mental models of team members make a difference
	Haara, Frode Olav	Unveiling teachers' reasons for choosing practical activities in mathematics teaching

2011 H	Hauge, Hans Abraham	How can employee empowerment be made conducive to both employee health and organisation performance? An empirical investigation of a tailor-made approach to organisation learning in a municipal public service organisation.
	Melkevik, Ole Rogstad	Screen-based sedentary behaviours: pastimes for the poor, inactive and overweight? A cross-national survey of children and adolescents in 39 countries.
	Vøllestad, Jon	Mindfulness-based treatment for anxiety disorders. A quantitative review of the evidence, results from a randomized controlled trial, and a qualitative exploration of patient experiences.
	Tolo, Astrid	Hvordan blir lærerkompetanse konstruert? En kvalitativ studie av PPU-studenters kunnskapsutvikling.
	Saus, Evelyn-Rose	Training effectiveness: Situation awareness training in simulators
	Nordgreen, Tine	Internet-based self-help for social anxiety disorder and panic disorder. Factors associated with effect and use of self-help.
	Munkvold, Linda Helen	Oppositional Defiant Disorder: Informant discrepancies, gender differences, co-occuring mental health problems and neurocognitive function.
	Christiansen, Øivin	Når barn plasseres utenfor hjemmet: beslutninger, forløp og relasjoner. Under barnevernets (ved)tak.
	Brunborg, Geir Scott	Conditionability and Reinforcement Sensitivity in Gambling Behaviour
	Hystad, Sigurd William	Measuring Psychological Resiliency: Validation of an Adapted Norwegian Hardiness Scale
2012 V	Roness, Dag	Hvorfor bli lærer? Motivasjon for utdanning og utøving.
	Fjermestad, Krister Westlye	The therapeutic alliance in cognitive behavioural therapy for youth anxiety disorders
	Jenssen, Eirik Sørnes	Tilpasset opplæring i norsk skole: politikeres, skoleledereres og læreres handlingsvalg
	Saksvik-Lehouillier, Ingvild	Shift work tolerance and adaptation to shift work among offshore workers and nurses
	Johansen, Venke Frederike	Når det intime blir offentlig. Om kvinners åpenhet om brystkreft og om markedsføring av brystkreftsaken.
	Herheim, Rune	Pupils collaborating in pairs at a computer in mathematics learning: investigating verbal communication patterns and qualities
	Vie, Tina Løkke	Cognitive appraisal, emotions and subjective health complaints among victims of workplace bullying: A stress-theoretical approach
	Jones, Lise Øen	Effects of reading skills, spelling skills and accompanying efficacy beliefs on participation in education. A study in Norwegian prisons.

2012 H	Danielsen, Yngvild Sørebø	Childhood obesity – characteristics and treatment. Psychological perspectives.
	Horverak, Jøri Gytre	Sense or sensibility in hiring processes. Interviewee and interviewer characteristics as antecedents of immigrant applicants' employment probabilities. An experimental approach.
	Jøsendal, Ola	Development and evaluation of BE smokeFREE, a school-based smoking prevention program
	Osnes, Berge	Temporal and Posterior Frontal Involvement in Auditory Speech Perception
	Drageset, Sigrunn	Psychological distress, coping and social support in the diagnostic and preoperative phase of breast cancer
	Aasland, Merethe Schanke	Destructive leadership: Conceptualization, measurement, prevalence and outcomes
	Bakibinga, Pauline	The experience of job engagement and self-care among Ugandan nurses and midwives
	Skogen, Jens Christoffer	Foetal and early origins of old age health. Linkage between birth records and the old age cohort of the Hordaland Health Study (HUSK)
	Leversen, Ingrid	Adolescents' leisure activity participation and their life satisfaction: The role of demographic characteristics and psychological processes
	Hanss, Daniel	Explaining sustainable consumption: Findings from cross-sectional and intervention approaches
	Rød, Per Arne	Barn i klem mellom foreldrekonflikter og samfunnsmessig beskyttelse
2013 V	Mentzoni, Rune Aune	Structural Characteristics in Gambling
	Knudsen, Ann Kristin	Long-term sickness absence and disability pension award as consequences of common mental disorders. Epidemiological studies using a population-based health survey and official ill health benefit registries.
	Strand, Mari	Emotional information processing in recurrent MDD
	Veseth, Marius	Recovery in bipolar disorder. A reflexive-collaborative exploration of the lived experiences of healing and growth when battling a severe mental illness
	Mæland, Silje	Sick leave for patients with severe subjective health complaints. Challenges in general practice.
	Mjaaland, Thera	At the frontiers of change? Women and girls' pursuit of education in north-western Tigray, Ethiopia
	Odéen, Magnus	Coping at work. The role of knowledge and coping expectancies in health and sick leave.
	Hynninen, Kia Minna Johanna	Anxiety, depression and sleep disturbance in chronic obstructive pulmonary disease (COPD). Associations, prevalence and effect of psychological treatment.
	Flo, Elisabeth	Sleep and health in shift working nurses

	Aasen, Elin Margrethe	From paternalism to patient participation? The older patients undergoing hemodialysis, their next of kin and the nurses: a discursive perspective on perception of patient participation in dialysis units
	Ekornås, Belinda	Emotional and Behavioural Problems in Children: Self-perception, peer relationships, and motor abilities
	Corbin, J. Hope	North-South Partnerships for Health: Key Factors for Partnership Success from the Perspective of the KIWAKKUKI
	Birkeland, Marianne Skogbrott	Development of global self-esteem: The transition from adolescence to adulthood
2013 H	Gianella-Malca, Camila	Challenges in Implementing the Colombian Constitutional Court's Health-Care System Ruling of 2008
	Hovland, Anders	Panic disorder – Treatment outcomes and psychophysiological concomitants
	Mortensen, Øystein	The transition to parenthood – Couple relationships put to the test
	Årdal, Guro	Major Depressive Disorder – a Ten Year Follow-up Study. Inhibition, Information Processing and Health Related Quality of Life
	Johansen, Rino Bandlitz	The impact of military identity on performance in the Norwegian armed forces
	Bøe, Tormod	Socioeconomic Status and Mental Health in Children and Adolescents
2014 V	Nordmo, Ivar	Gjennom nåløyet – studenters læringserfaringer i psykologutdanningen
	Dovran, Anders	Childhood Trauma and Mental Health Problems in Adult Life
	Hegelstad, Wenche ten Velden	Early Detection and Intervention in Psychosis: A Long-Term Perspective
	Urheim, Ragnar	Forståelse av pasientaggresjon og forklaringer på nedgang i voldsrate ved Regional sikkerhetsavdeling, Sandviken sykehus
	Kinn, Liv Grethe	Round-Trips to Work. Qualitative studies of how persons with severe mental illness experience work integration.
	Rød, Anne Marie Kinn	Consequences of social defeat stress for behaviour and sleep. Short-term and long-term assessments in rats.
	Nygård, Merethe	Schizophrenia – Cognitive Function, Brain Abnormalities, and Cannabis Use
	Tjora, Tore	Smoking from adolescence through adulthood: the role of family, friends, depression and socioeconomic status. Predictors of smoking from age 13 to 30 in the "The Norwegian Longitudinal Health Behaviour Study" (NLHB)
	Vangsnes, Vigdis	The Dramaturgy and Didactics of Computer Gaming. A Study of a Medium in the Educational Context of Kindergartens.

	Nordahl, Kristin Berg	Early Father-Child Interaction in a Father-Friendly Context: Gender Differences, Child Outcomes, and Protective Factors related to Fathers' Parenting Behaviors with One-year-olds
2014 H	Sandvik, Asle Makoto	Psychopathy – the heterogenety of the construct
	Skotheim, Siv	Maternal emotional distress and early mother-infant interaction: Psychological, social and nutritional contributions
	Halleland, Helene Barone	Executive Functioning in adult Attention Deficit Hyperactivity Disorder (ADHD). From basic mechanisms to functional outcome.
	Halvorsen, Kirsti Vindal	Partnerskap i lærerutdanning, sett fra et økologisk perspektiv
	Solbue, Vibeke	Dialogen som visker ut kategorier. En studie av hvilke erfaringer innvandrerungdommer og norskfødte med innvandrerforeldre har med videregående skole. Hva forteller ungdommenes erfaringer om videregående skoles håndtering av etniske ulikheter?
	Kvalevaag, Anne Lise	Fathers' mental health and child development. The predictive value of fathers' psychological distress during pregnancy for the social, emotional and behavioural development of their children
	Sandal, Ann Karin	Ungdom og utdanningsval. Om elevar sine opplevingar av val og overgangsprosessar.
	Haug, Thomas	Predictors and moderators of treatment outcome from high- and low-intensity cognitive behavioral therapy for anxiety disorders. Association between patient and process factors, and the outcome from guided self-help, stepped care, and face-to-face cognitive behavioral therapy.
	Sjølie, Hege	Experiences of Members of a Crisis Resolution Home Treatment Team. Personal history, professional role and emotional support in a CRHT team.
	Falkenberg, Liv Eggset	Neuronal underpinnings of healthy and dysfunctional cognitive control
	Mrdalj, Jelena	The early life condition. Importance for sleep, circadian rhythmicity, behaviour and response to later life challenges
	Hesjedal, Elisabeth	Tverrprofesjonelt samarbeid mellom skule og barnevern: Kva kan støtte utsette barn og unge?
2015 V	Hauken, May Aasebø	«*The cancer treatment was only half the work!»* A Mixed-Method Study of Rehabilitation among Young Adult Cancer Survivors
	Ryland, Hilde Katrin	Social functioning and mental health in children: the influence of chronic illness and intellectual function
	Rønsen, Anne Kristin	Vurdering som profesjonskompetanse. Refleksjonsbasert utvikling av læreres kompetanse i formativ vurdering

	Hoff, Helge Andreas	Thinking about Symptoms of Psychopathy in Norway: Content Validation of the Comprehensive Assessment of Psychopathic Personality (CAPP) Model in a Norwegian Setting
	Schmid, Marit Therese	Executive Functioning in recurrent- and first episode Major Depressive Disorder. Longitudinal studies
	Sand, Liv	Body Image Distortion and Eating Disturbances in Children and Adolescents
	Matanda, Dennis Juma	Child physical growth and care practices in Kenya: Evidence from Demographic and Health Surveys
	Amugsi, Dickson Abanimi	Child care practices, resources for care, and nutritional outcomes in Ghana: Findings from Demographic and Health Surveys
	Jakobsen, Hilde	The good beating: Social norms supporting men's partner violence in Tanzania
	Sagoe, Dominic	Nonmedical anabolic-androgenic steroid use: Prevalence, attitudes, and social perception
	Eide, Helene Marie Kjærgård	Narrating the relationship between leadership and learning outcomes. A study of public narratives in the Norwegian educational sector.
2015 H	Wubs, Annegreet Gera	Intimate partner violence among adolescents in South Africa and Tanzania
	Hjelmervik, Helene Susanne	Sex and sex-hormonal effects on brain organization of fronto-parietal networks
	Dahl, Berit Misund	The meaning of professional identity in public health nursing
	Røykenes, Kari	Testangst hos sykepleierstudenter: «Alternativ behandling»
	Bless, Josef Johann	The smartphone as a research tool in psychology. Assessment of language lateralization and training of auditory attention.
	Løvvik, Camilla Margrethe Sigvaldsen	Common mental disorders and work participation – the role of return-to-work expectations
	Lehmann, Stine	Mental Disorders in Foster Children: A Study of Prevalence, Comorbidity, and Risk Factors
	Knapstad, Marit	Psychological factors in long-term sickness absence: the role of shame and social support. Epidemiological studies based on the Health Assets Project.
2016 V	Kvestad, Ingrid	Biological risks and neurodevelopment in young North Indian children
	Sælør, Knut Tore	Hinderløyper, halmstrå og hengende snører. En kvalitativ studie av håp innenfor psykisk helse- og rusfeltet.
	Mellingen, Sonja	Alkoholbruk, partilfredshet og samlivsstatus. Før, inn i, og etter svangerskapet – korrelater eller konsekvenser?
	Thun, Eirunn	Shift work: negative consequences and protective factors

	Hilt, Line Torbjørnsen	The borderlands of educational inclusion. Analyses of inclusion and exclusion processes for minority language students
	Havnen, Audun	Treatment of obsessive-compulsive disorder and the importance of assessing clinical effectiveness
	Slåtten, Hilde	Gay-related name-calling among young adolescents. Exploring the importance of the context.
	Ree, Eline	Staying at work. The role of expectancies and beliefs in health and workplace interventions.
	Morken, Frøydis	Reading and writing processing in dyslexia
2016 H	Løvoll, Helga Synnevåg	Inside the outdoor experience. On the distinction between pleasant and interesting feelings and their implication in the motivational process.
	Hjeltnes, Aslak	Facing social fears: An investigation of mindfulness-based stress reduction for young adults with social anxiety disorder
	Øyeflaten, Irene Larsen	Long-term sick leave and work rehabilitation. Prognostic factors for return to work.
	Henriksen, Roger Ekeberg	Social relationships, stress and infection risk in mother and child
	Johnsen, Iren	«Only a friend» - The bereavement process of young adults who have lost a friend to a traumatic death. A mixed methods study.
	Helle, Siri	Cannabis use in non-affective psychoses: Relationship to age at onset, cognitive functioning and social cognition
	Glambek, Mats	Workplace bullying and expulsion in working life. A representative study addressing prospective associations and explanatory conditions.
	Oanes, Camilla Jensen	Tilbakemelding i terapi. På hvilke måter opplever terapeuter at tilbakemeldingsprosedyrer kan virke inn på terapeutiske praksiser?
	Reknes, Iselin	Exposure to workplace bullying among nurses: Health outcomes and individual coping
	Chimhutu, Victor	Results-Based Financing (RBF) in the health sector of a low-income country. From agenda setting to implementation: The case of Tanzania
	Ness, Ingunn Johanne	The Room of Opportunity. Understanding how knowledge and ideas are constructed in multidisciplinary groups working with developing innovative ideas.
	Hollekim, Ragnhild	Contemporary discourses on children and parenting in Norway. An empirical study based on two cases.
	Doran, Rouven	Eco-friendly travelling: The relevance of perceived norms and social comparison
2017 V	Katisi, Masego	The power of context in health partnerships: Exploring synergy and antagony between external and internal ideologies in implementing Safe Male Circumcision (SMC) for HIV prevention in Botswana

	Jamaludin, Nor Lelawati Binti	The “why” and “how” of International Students’ Ambassadorship Roles in International Education
	Berthelsen, Mona	Effects of shift work and psychological and social work factors on mental distress. Studies of onshore/offshore workers and nurses in Norway.
	Krane, Vibeke	Lærer-elev-relasjoner, elevers psykiske helse og frafall i videregående skole – en eksplorerende studie om samarbeid og den store betydningen av de små ting
	Søvik, Margaret Ljosnes	Evaluating the implementation of the Empowering Coaching™ program in Norway
	Tonheim, Milfrid	A troublesome transition: Social reintegration of girl soldiers returning ‘home’
	Senneseth, Mette	Improving social network support for partners facing spousal cancer while caring for minors. A randomized controlled trial.
	Urke, Helga Bjørnøy	Child health and child care of very young children in Bolivia, Colombia and Peru.
	Bakhturidze, George	Public Participation in Tobacco Control Policy-making in Georgia
	Fismen, Anne-Siri	Adolescent eating habits. Trends and socio-economic status.
2017 H	Hagatun, Susanne	Internet-based cognitive-behavioural therapy for insomnia. A randomised controlled trial in Norway.
	Eichele, Heike	Electrophysiological Correlates of Performance Monitoring in Children with Tourette Syndrome. A developmental perspective.
	Risan, Ulf Patrick	Accommodating trauma in police interviews. An exploration of rapport in investigative interviews of traumatized victims.
	Sandhåland, Hilde	Safety on board offshore vessels: A study of shipboard factors and situation awareness
	Blågestad, Tone Fidje	Less pain – better sleep and mood? Interrelatedness of pain, sleep and mood in total hip arthroplasty patients
	Kronstad, Morten	Frå skulebenk til deadlines. Korleis nettjournalistar og journaliststudentar lærer, og korleis dei utviklar journalistfagleg kunnskap
	Vedaa, Øystein	Shift work: The importance of sufficient time for rest between shifts.
	Steine, Iris Mulders	Predictors of symptoms outcomes among adult survivors of sexual abuse: The role of abuse characteristics, cumulative childhood maltreatment, genetic variants, and perceived social support.
	Høgheim, Sigve	Making math interesting: An experimental study of interventions to encourage interest in mathematics

2018 V	Brevik, Erlend Joramo	Adult Attention Deficit Hyperactivity Disorder. Beyond the Core Symptoms of the Diagnostic and Statistical Manual of Mental Disorders.
	Erevik, Eilin Kristine	User-generated alcohol-related content on social media: Determinants and relation to offline alcohol use
	Hagen, Egon	Cognitive and psychological functioning in patients with substance use disorder; from initial assessment to one-year recovery
	Adólfsdóttir, Steinunn	Subcomponents of executive functions: Effects of age and brain maturations
	Brattabø, Ingfrid Vaksdal	Detection of child maltreatment, the role of dental health personnel – A national cross-sectional study among public dental health personnel in Norway
	Fylkesnes, Marte Knag	Frykt, forhandlinger og deltakelse. Ungdommer og foreldre med etnisk minoritetsbakgrunn i møte med den norske barnevernstjenesten.
	Stiegler, Jan Reidar	Processing emotions in emotion-focused therapy. Exploring the impact of the two-chair dialogue intervention.
	Egelandsdal, Kjetil	Clickers and Formative Feedback at University Lectures. Exploring students and teachers' reception and use of feedback from clicker interventions.
	Torjussen, Lars Petter Storm	Foreningen av visdom og veltalenhet – utkast til en universitetsdidaktikk gjennom en kritikk og videreføring av Skjervheims pedagogiske filosofi på bakgrunn av Arendt og Foucault. *Eller hvorfor menneskelivet er mer som å spille fløyte enn å bygge et hus.*
	Selvik, Sabreen	A childhood at refuges. Children with multiple relocations at refuges for abused women.
2018 H	Leino, Tony Mathias	Structural game characteristics, game features, financial outcomes and gambling behaviour
	Raknes, Solfrid	Anxious Adolescents: Prevalence, Correlates, and Preventive Cogntive Behavioural Interventions
	Morken, Katharina Teresa Enehaug	Mentalization-based treatment of female patients with severe personality disorder and substance use disorder
	Braatveit, Kirsten Johanne	Intellectual disability among in-patients with substance use disorders
	Barua, Padmaja	Unequal Interdependencies: Exploring Power and Agency in Domestic Work Relations in Contemporary India
	Darkwah, Ernest	Caring for "parentless" children. An exploration of work-related experiences of caregivers in children's homes in Ghana.
	Valdersnes, Kjersti Bergheim	Safety Climate perceptions in High Reliability Organizations – the role of Psychological Capital

2019 V	Kongsgården, Petter	Vurderingspraksiser i teknologirike læringsmiljøer. En undersøkelse av læreres vurderingspraksiser i teknologirike læringsmiljøer og implikasjoner på elevenes medvirkning i egen læringsprosess.
	Vikene, Kjetil	Complexity in Rhythm and Parkinson's disease: Cognitive and Neuronal Correlates
	Heradstveit, Ove	Alcohol- and drug use among adolescents. School-related problems, childhood mental health problems, and psychiatric diagnoses.
	Riise, Eili Nygard	Concentrated exposure and response prevention for obsessive-compulsive disorder in adolescents: the Bergen 4-day treatment
	Vik, Alexandra	Imaging the Aging Brain: From Morphometry to Functional Connectivity
	Krossbakken, Elfrid	Personal and Contextual Factors Influencing Gaming Behaviour. Risk Factors and Prevention of Video Game Addiction.
	Solholm, Roar	Foreldrenes status og rolle i familie- og nærmiljøbaserte intervensjoner for barn med atferdsvansker
	Baldomir, Andrea Margarita	Children at Risk and Mothering Networks in Buenos Aires, Argentina: Analyses of Socialization and Law-Abiding Practices in Public Early Childhood Intervention.
	Samuelsson, Martin Per	Education for Deliberative Democracy. Theoretical assumptions and classroom practices.
	Visted, Endre	Emotion regulation difficulties. The role in onset, maintenance and recurrence of major depressive disorder.
2019 H	Nordmo, Morten	Sleep and naval performance. The impact of personality and leadership.
	Sveinsdottir, Vigdis	Supported Employment and preventing Early Disability (SEED)
	Dwyer, Gerard Eric	New approaches to the use of magnetic resonance spectroscopy for investigating the pathophysiology of auditory-verbal hallucinations
	Synnevåg, Ellen Strøm	Planning for Public Health. Balancing top-down and bottom-up approaches in Norwegian municipalities.
	Kvinge, Øystein Røsseland	Presentation in teacher education. A study of student teachers' transformation and representation of subject content using semiotic technology.
	Thorsen, Anders Lillevik	The emotional brain in obsessive-compulsive disorder
	Eldal, Kari	Sikkerheitsnettet som tek imot om eg fell – men som også kan fange meg. Korleis erfarer menneske med psykiske lidingar ei innlegging i psykisk helsevern? Eit samarbeidsbasert forskingsprosjekt mellom forskarar og brukarar.

	Svendsen, Julie Lillebostad	Self-compassion - Relationship with mindfulness, emotional stress symptoms and psychophysiological flexibility
2020 V	Albæk, Ane Ugland	Walking children through a minefield. Qualitative studies of professionals' experiences addressing abuse in child interviews.
	Ludvigsen, Kristine	Creating Spaces for Formative Feedback in Lectures. Understanding how use of educational technology can support formative assessment in lectures in higher education.
	Hansen, Hege	Tidlig intervensjon og recoveryprosesser ved førsteepisode psykose. En kvalitativ utforsking av ulike perspektiver.
	Nilsen, Sondre Aasen	After the Divorce: Academic Achievement, Mental Health, and Health Complaints in Adolescence. Heterogeneous associations by parental education, family structure, and siblings.
	Hovland, Runar Tengel	Kliniske tilbakemeldingssystemer i psykisk helsevern – implementering og praktisering
	Sæverot, Ane Malene	Bilde og pedagogikk. En empirisk undersøkelse av ungdoms fortellinger om bilder.
	Carlsen, Siv-Elin Leirvåg	Opioid maintenance treatment and social aspects of quality of life for first-time enrolled patients. A quantitative study.
	Haugen, Lill Susann Ynnesdal	Meeting places in Norwegian community mental health care: A participatory and community psychological inquiry
2020 H	Markova, Valeria	How do immigrants in Norway interpret, view, and prefer to cope with symptoms of depression? A mixed method study
	Anda-Ågotnes, Liss Gøril	Cognitive change in psychosis
	Finserås, Turi Reiten	Assessment, reward characteristics and parental mediation of Internet Gaming Disorder
	Hagen, Susanne	«Helse i alt kommunen gjør? ...» - *en undersøkelse av samvariasjoner mellom kommunale faktorer og norske kommuners bruk av folkehelsekoordinator, fokus på levekår og prioritering av fordelingshensyn blant sosioøkonomiske grupper.*
	Rajalingam, Dhaksshaginy	The impact of workplace bullying and repeated social defeat on health complaints and behavioral outcomes: A biopsychosocial perspective
	Potrebny, Thomas	Temporal trends in psychological distress and healthcare utilization among young people
2021 V	Hjetland, Gunnhild Johnsen	The effect of bright light on sleep in nursing home patients with dementia
	Marquardt, Lynn Anne	tDCS as treatment in neuro-psychiatric disorders. The underlying neuronal mechanisms of tDCS treatment of auditory verbal hallucinations.

	Sunde, Erlend	Effects of light interventions for adaptation to night work: Simulated night work experiments
	Kusztrits, Isabella	About psychotic-like experiences and auditory verbal hallucinations. Transdiagnostic investigations of neurobiological, cognitive, and emotional aspects of a continuous phenomenon.
	Halvorsen, Øyvind Wiik	Aktørskap hjå norsklærarar i vidaregåande skule – Ein sosiokulturell intervjustudie
	Fyhn, Tonje	Barriers and facilitators to increasing work participation among people with moderate to severe mental illness
	Marti, Andrea Rørvik	Shift work, circadian rhythms, and the brain. Identifying biological mechanisms underlying the metabolic and cognitive consequences of work timing, using a rat model.
	Thomassen, Ådne Gabriel	Hardiness and mental health in military organizations. Exploring mechanism and boundary conditions.
	Husabø, Elisabeth Bakke	Implementation of indicated anxiety prevention in schools
	Hagatun, Kari	The Educational Situation for Roma Pupils in Norway. Silenced Narratives on Schooling and Future.
	Herrero-Arias, Raquel	Negotiating parenting culture, identity, and belonging. The experiences of Southern European parents raising their children in Norway.
	Moltudal, Synnøve	Purposeful Actions in Leadership of Learning Processes: A Mixed Methods Study of Classroom Management in Digital Learning Environments
2021 H	Johnsen, Anja	Barn og unge i fattige familier: Selvoppfattet skolekompetanse, etnisitet og akademisk resiliens. Hvilke faktorer kan fremme skoleprestasjoner hos barn og unge i risiko?
	Eilertsen, Silje Elisabeth Hasmo	Who profits from concentrated exposure treatment for obsessive-compulsive disorder (OCD)? A quality assurance project from the OCD-team in Bergen.
	Chegeni, Razieh	Anabolic-Androgenic Steroids and Aggression in Humans: Experimental Studies, Subgroups, and Longitudinal Risk
	Solstad, Stig Magne	Patients' experiences with routine outcome monitoring and clinical feedback systems in psychotherapy
	Oldeide, Olin Blaalid	Local drug prevention - From policy to practice: A qualitative case study of policy makers, outreach social workers and at-risk youths
	Steinkopf, Per Heine	«Being the Instrument of Change» Staff Experiences in Developing Trauma-informed Practice in a Norwegian Child Welfare Residential Care Unit.
	Tsogli, Barbara	When predictions about the "what", "where" and "when" interact with statistical learning, from a behavioural and neural perspective.

2022 V	Simhan, Indra Laetitia	Seeing and being seen: An investigation of video guidance processes with vulnerable parents of infants
	Fekete, Orsolya Réka	Clubhouse Members' Experiences of Being in Recovery in Light of Salutogenesis
	Madsø, Kristine Gustavsen	Momentary well-being in dementia: Observational assessment of psychosocial interventions and music therapy
	Olaniyan, Oyeniyi Samuel	Embracing both sides of the same coin. Work-related psychosocial risks and resources among child welfare workers.
	Harris, Samantha Marie	Mental health encounters between general practitioners and individuals with a refugee background - Help seeking and provision in the resettlement context
	Larsen, Marit Hjellset	Service support and quality of life for youth in foster care
	Vik, Berit Marie Dykesteen dr.philos.	Effects of Music Training on Cortical Plasticity: Cognitive Rehabilitation of Patients with Traumatic Brain Injury
	Abamosa, Juhar Yasin	Pathways to Social Inclusion: The Role of Institutions in the Social Inclusion of Refugees into Higher Education in Norway. Policies and practices in focus.
	Raudeberg, Rune	Improving the Methodology for Assessing Cognitive Impairment in People with Schizophrenia Spectrum Disorders
	Ågotnes, Kari Wik	Work-related risk factors for workplace bullying. The moderating effect of laissez-faire leadership.
	Stokkebekk, Jan Kristian	Navigating Prolonged Conflict: Subject positions and meaning constructions in postdivorce families
	Valle, Roald	Skoleledelse og utdanningspolitikk. Hvordan beskrives skoleledelse etter 1990?
	Woodfin, Vivian Irena	Self-Compassion and Perfectionism
	Aarestad, Sarah Helene	Treating the aftermath of exposure to workplace bullying and preventing exclusion from working life. The effect of individual resilience, return to work self-efficacy and work-focused metacognitive and cognitive treatment.
	Ampim, Gloria Abena	Transforming gender relations? Men's involvement in care for their partners and households at the time of pregnancy in rural and urban Ghana – A qualitative study

Graphic design: Communication Division, UiB / Print: Skipnes Kommunikasjon AS

uib.no

ISBN: 9788230851005 (print)
9788230864326 (PDF)