

Article

# Adapted Education for Gifted Students in Norway: A Mixed Methods Study

Astrid Lenvik <sup>1,\*</sup> , Lise Øen Jones <sup>2</sup> and Elisabeth Hesjedal <sup>1</sup>

<sup>1</sup> Department of Education, Faculty of Psychology, University of Bergen, 5020 Bergen, Norway; elisabeth.hesjedal@uib.no

<sup>2</sup> Department of Psychosocial Science, Faculty of Psychology, University of Bergen, 5020 Bergen, Norway; lise.jones@uib.no

\* Correspondence: astrid.lenvik@uib.no

**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 and similar barriers and systematic challenges to its facilitation.

**Keywords:** adapted education; mixed methods; teachers; students



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## 1. Introduction

In Norway, interest in gifted students and the differentiation and adaptation of education for this student population is increasing [1]. 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 [2–4]. When the guidance they need is absent, they are in danger of developing, for example, socioemotional difficulties, behavioral issues, negative relations with peers and teachers, and negative self-value [5].

In the literature concerning gifted and talented students, there seem to be almost as many different definitions of giftedness or gifted students as there are scholars [6]. In the study displayed in this article, we used the following definition: “Gifted students are 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” [7].

In this article we look specifically at adapted education within the Norwegian context. Adapted education is regulated in the Education Act § 1–3, which states: “Education must be adapted to the abilities and aptitudes of the individual pupil, apprentice, candidate for certificate of practice and training candidate.” Adapted education is understood as an overarching principle, which guides teachers and schools in Norway, and is not an individual right for each pupil or student.

Frantz and McClarty [8] demonstrated through their study of 38 Organization for Economic Co-operation and Development (OECD) countries that cultural characteristics contributed strongly to how 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 [8]. 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 [1,8,9].

Despite the increasing attention that gifted education receives in Norway, teachers still have little information on how to facilitate strategies to adapt and differentiate education for gifted students [1]. 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 gifted students in Norway.

### *1.1. Differentiation and Adapted Education for Gifted Students*

Education for gifted students can be adapted in many ways. Rasmussen and Lindgard [10] classified educational provisions for gifted students into three types: segregation, acceleration, and inclusion. Under segregation and acceleration provisions, gifted students are identified and taught in segregated or accelerated classes, which are separated from the ordinary classes. Other forms of acceleration include skipping grades, early entry into higher school levels, or personalized accelerated pacing of the curriculum [11].

Myths and negative connotations surround both acceleration and segregation. Segregation in the form of special classes and full time ability grouping can be considered elitist, and teachers and parents may view acceleration as harmful to the student's psychological well-being and social development [12–14]. A longitudinal study recently demonstrated that acceleration did not negatively affect the student's psychological well-being [12]. At the same time, acceleration has been shown to positively and significantly impact 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 [14]. Students support the notion of acceleration for high-ability learners and believe it benefits the accelerated student, the teacher, and other students [13].

The substantial empirical support for acceleration and ability grouping has not necessarily translated into practice in education [11,15–17]. Nevertheless, teachers may have misconceptions about acceleration and ability grouping [12,14,16]. A study in Finland uncovered that teachers supported differentiated education for gifted students but held more negative views toward acceleration and ability grouping [18]. Since teachers may perceive acceleration and ability grouping negatively, enrichment strategies that can be implemented within heterogeneous ability groups must be considered.

Gifted students in homogenous age groups need inclusive provisions that involve differentiation and enrichment strategies [10,19,20]. 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, develop different projects, and engage in problem-based learning [19–21].

A recent meta-analysis found that enrichment programs positively impact academic achievement and socioemotional development [22]. According to Gagné (who used the term "enrichment" in place of "differentiation"), best practices for enrichment programs include the enriched K–12 curriculum, systematic daily enrichment, full-time ability grouping, customized/accelerated pacing, personal excellence goals, highly selective access, and early interventions [23].

Teachers can enrich (i.e., differentiate) the curriculum via the four Ds: density, difficulty, depth, and diversity [23]. Density, the most crucial of these four, entails compacting or condensing the curriculum. Difficulty relates to enriching the assignments, depth is allowing the students to deep dive into topics, and diversity requires teachers to provide variation. Systematic daily enrichment requires teachers to challenge gifted learners each day. Full-time ability grouping (special classes or groups for gifted students) is a sensitive

and controversial subject and is not allowed under Norwegian educational law [23,24]. Flexible grouping where gifted students are grouped together part-time is allowed according to the Education Act, as long as it is not the majority of the time. Customized acceleration or pacing demands that enrichment programs also heed 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 the gifted learners' educational journey, ideally as soon as teachers discover their giftedness [23].

### 1.2. The Norwegian Context

The educational approach in Norway is built to promote equity, inclusion, and adapted education [25]. 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 receives the same education; on the contrary, equity requires differentiation and adaptation [25]. Adaptation in this context requires that the education is adjusted according to the students' individual needs.

Inclusive education in Norway has its roots, among others, in the Salamanca Statement by UNESCO in 1994, in which gifted students are among the various student groups specifically mentioned [26]. To ensure the provision of an inclusive education, schools and teachers must consider the diversity in the student group. The matter of inclusive education also raises essential questions that are addressed by different and sometimes opposing positions [27]. 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 [27].

Adapted education is one way to provide inclusive and equitable education for all. Adapted education is defined as variation and differentiation according to the needs and predispositions of each student. Norwegian educational law dictates that education be adapted to meet all students' needs and abilities [24] (§ 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 instruction in line with the needs and predispositions of the entire student group [28].

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 special education [24]. However, the Act does not define 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; thus, they are not covered by special education [29].

Adapted education, as a principle, encompasses both ordinary and special education [25]. Teachers might adapt education through individual educational plans or by applying general principles for a good education and differentiating the instruction [30]. In this article, "adapted education" refers to the legal term based on § 1–3 in The Education Act [24]. 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. Instead, adapted education is a strategy implemented within the classroom to the extent the teacher can manage. Implementing adapted education is a lofty goal that schools should strive to achieve to the greatest degree possible [31].

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 [25,32]. “Space” in this sense reflects all the necessary resources for differentiation, including physical space, time, staff, and digital and physical resources.

Gifted students are not considered to have special needs; however, they require differentiation. Pre-service teachers have described gifted students as diverse and have reported difficulties in developing and implementing differentiated teaching targeting this student group [33].

The Norwegian Official Report entitled “More to Gain—Better Learning for Students with High Learning Potential” [34] recognizes three main systematic issues that impact the education of gifted students. First, comprehensive education is not appropriately adapted to enable gifted students to realize their full learning potential. One of the reviewers for this article commented “how is this different from a satisfactory yield”? This is an interesting and important comment in relation to special education. According to NDET [29], gifted students have a satisfactory yield, even if they are not realizing their full learning potential. This distinction is an educational, ethical, and political discussion, which unfortunately is beyond the scope of this article. Secondly, the official report states that 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 [34].

### 1.3. Current Study

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:

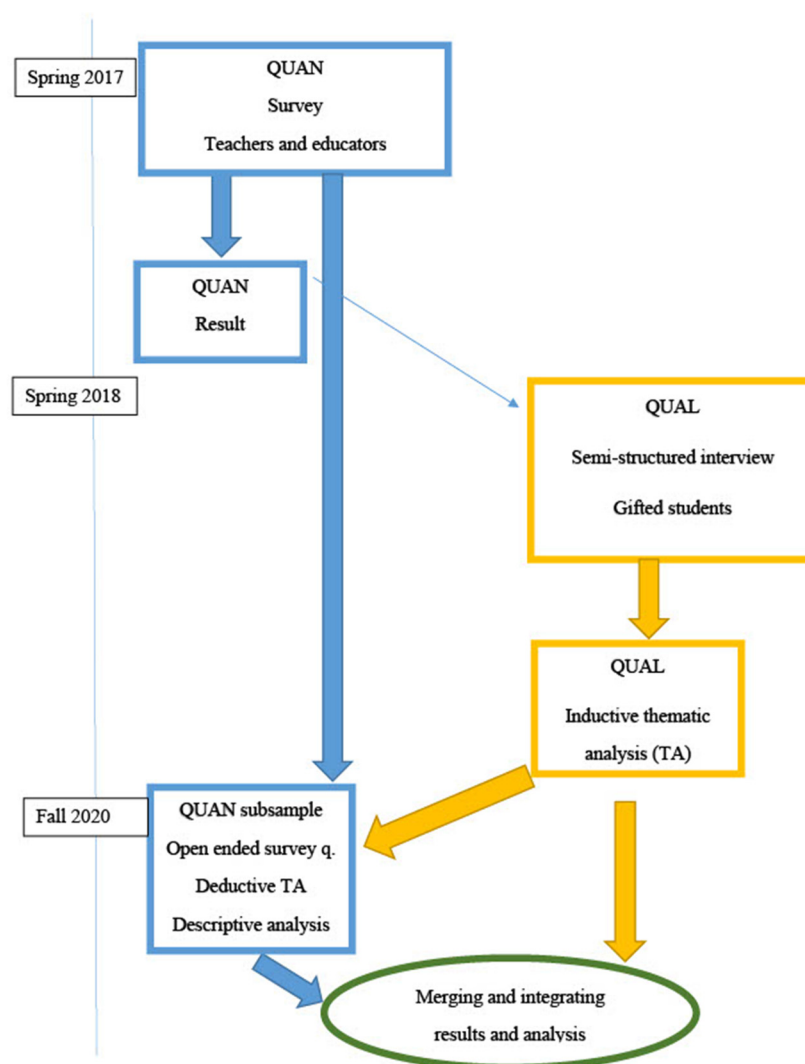
Qualitative: How do gifted students experience adapted education?

Quantitative: How do teachers report that 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?

## 2. Materials and Methods

This research involved the analysis of data gathered for a study that followed a convergent mixed methods design [35]. Two sub-studies, one quantitative and one qualitative, are included in the study [36,37]. 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. The research design is illustrated in Figure 1. 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 [38,39]. The study is explorative and descriptive, seeking to investigate adapted education 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 examine this issue through different lenses. According to Creswell [35], utilizing different analysis units is efficient when comparing multiple perspectives.



**Figure 1.** Timeline and illustration of data collection and analysis.

### 2.1. Quantitative Phase with Teachers

In the quantitative study, we collected data through a web-based survey of  $n = 339$  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 (650 schools). The response rate from schools was approximately 5%, with a 20% teacher response rate. In the second cycle, we contacted different municipalities in Norway and received positive replies from one in Eastern Norway and one in Western Norway. The survey was sent to the head of the school district and further distributed to teachers. 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 [40], so we cannot generalize the findings to all primary and secondary school Norwegian teachers.

For the current study, we analyzed a subsample of teachers from the original study who reported having a student with extraordinary learning potential in their classrooms at the time of the survey ( $n = 132$ ). This decision was made to better compare the experiences between the teachers and students. If we include the teachers who did not have gifted students, they will answer more based on hypotheticals than on experience. This might

give skewed results compared to the students' actual experiences with their education. We included in the survey a definition of "extraordinary learning potential," which is the term commonly used to refer to gifted students in Norway (this definition is given in the article's introduction). 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.

|                       | <i>n</i> | %   |
|-----------------------|----------|-----|
| Total                 | 132      | 100 |
| Gender                |          |     |
| Female                | 97       | 73  |
| Male                  | 35       | 27  |
| 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       | 61  |
| Secondary school      | 35       | 27  |
| Across all grades     | 17       | 13  |
| Administration        | 1        | 1   |
| Public school         | 117      | 89  |
| Private school        | 15       | 11  |
| School size           |          |     |
| <100 students         | 28       | 21  |
| 100–199 students      | 27       | 20  |
| 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?" There are some missing answers as not all teachers answered all questions.

## 2.2. Instrument and Procedures

We administered a web-based survey through SurveyMonkey ([www.surveymonkey.com](http://www.surveymonkey.com), accessed on 25 January 2017) to gather the quantitative data. The survey consisted of 25 questions, including background questions and questions related to gifted students. The first author developed the survey with help from the second and third author as well as the statistician Ole Johan Eikeland. The questions were developed to give a descriptive overview of the situation regarding education for gifted students in Norway, and the questions were based on a literature review of gifted education in Norway [7,41–43]. 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 A for a 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.



**Table 2.** Percent (frequency), M, and SD on questions regarding differentiation.  $n = 132$ .

|                                                                 | Totally Disagree (1)<br>% (n) | Somewhat Disagree (2)<br>% (n) | Neither Agrees nor Disagrees (3)<br>% (n) | Somewhat Agree (4)<br>% (n) | Totally Agree (5)<br>% (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 |

### 2.3. Qualitative Phase with Students

In addition to the quantitative survey, we performed individual, face-to-face, semi-structured interviews [44] with 17 gifted students in Norwegian secondary schools. For more information on this study see: [37]

### 2.4. Interview Guide

The main research question for the qualitative study was “How are Norwegian gifted secondary school students experiencing school?” This question guided the development of the semi-structured interview guide. The first author developed the interview guide with help from the second and third authors. The interview guide is explorative and seeks to investigate the experiences of gifted students in secondary school in Norway. The main topics addressed were experience and strategies in school, adapted education, family and friends, underachievement, social-emotional issues, and involvement in their education. The interview guide had 18 main questions with sub questions. The duration of the interviews was approximately one hour. The first author conducted all interviews. Before we collected the data, the first author conducted a pilot interview, which prompted some wording changes to the interview guide.

### 2.5. Recruitment and Selection Criteria for Informants

Participants in the qualitative study included 17 gifted students between 12 and 15 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 (Weschler Intelligence Scale for Children, fourth edition): 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 participants; the other four had previously been evaluated. Some had high scores in all domains, while others scored substantially higher on VC or PR.

## 2.6. 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 [45]. We informed the participants that they could withdraw from the studies anytime, even after completing the interviews or the survey. To preserve the participants' privacy, we removed all names and locations.

## 2.7. Analyses

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.

The analyses in this study reflect a combination of qualitative and quantitative approaches. We used inductive thematic analyses [46,47] in the qualitative study to examine the data from the student interviews, following the six steps listed by Braun and Clarke [47]: 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 facilitating differentiation and adaptation (see the codebook, Appendix B). Using the student codes as our deductive framework, we searched for themes, defined them, and named them (see Table 3). We used NVivo 12 pro (QSR International), a computer-assisted qualitative data analysis software [46], for our analysis. During the thematic process we looked at the data and codes from students and teachers separately to generate themes from both sets. In this process, we moved back and forth from the codes to subthemes and overarching themes to generate the themes we agreed captured the essence in each set. This process is not neutral and is of course colored by our experience with the field and previous research. However, we have tried to stay as close to the material as possible.

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.

Both the survey and the interviews were conducted in Norwegian. Translation of quotes and codes to English have been performed to preserve the original meaning; however, as in all translations there might be some nuances and context that was lost in this process.



**Table 3.** Relationship between themes and subthemes.

| Overarching Teacher Theme              | Subtheme                                                                                                            |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Individually adapted education         | Enrichment<br>Acceleration<br>less repetition<br>challenges                                                         |
| Instructional practices                | Varied instruction<br>digital tools<br>gifted groups<br>student responsibility                                      |
| The supporting teacher                 | Student-teacher conference<br>guidance and support<br>teacher competence                                            |
| Systematic challenges                  | Large classes<br>other students' needs<br>not enough help from the administration<br>difficulties grouping by level |
| Overarching student theme              | Subtheme                                                                                                            |
| Adapted education                      | Enrichment<br>Acceleration<br>Schoolwork                                                                            |
| The teacher as a promoter or inhibitor | Competent teachers<br>Teacher relation<br>Overbearing teachers<br>Understanding teachers                            |
| Barriers regarding facilitation        | Classroom environment<br>Grouping by level<br>Boring assignments<br>Primary school                                  |

### 2.8. Validity, Reliability, and Triangulation

To enhance the validity of the survey, we conducted a pilot test and included a definition of extraordinary learning potential (the term used regarding gifted students in Norway) to ensure that the teachers had comparable backgrounds when answering the survey. Intercoder reliability was addressed through first separate and then collective coding between all authors. All main codes and themes were discussed collectively.

In the qualitative interview study, we conducted a member check on the qualitative themes we developed. The students who participated in the member check agreed that the themes represented their experiences.

The mixed research question is the main form of triangulation. This research question allows us to compare the teachers' and students' perspectives on adapted education for gifted students. The datasets are compared for convergence, complementarity, and divergence. The coding framework from the student interview helps us compare the data, especially considering convergence and complementarity. However, it also distinguishes places where the data is divergent. A framework for deductive coding will, of course, be focusing the data; however, we are also using inductive coding for the data, which did not fit the deductive framework.

## 3. Results

### 3.1. Quantitative Findings—Teachers

We asked the teachers five questions regarding differentiation and adapted education to gain insights into the teachers' views on differentiated instruction for gifted students. Table 2 presents the results for each question.

A large majority (84%) of the teachers reported that they could 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 with the claim that schools provide space for adaptation. Space reflects all the necessary resources for adapted education, not just physical space. The teachers were also divided in their perceptions of their schools' priority on adapted 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 how gifted students experience adaptation and facilitation as a deductive coding framework. In addition to the 26 student codes, we developed nine 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 B) for all codes and example quotes. Some codes in the codebook are marked with 0; these are codes developed from the student interviews that we did not find in the teacher material.

### 3.2. Qualitative Findings—Students

In the interviews, the students mentioned both proper adaptation and challenges with facilitation. Following the procedure for the inductive thematic analysis [47], 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. The quotes we present are chosen because they display the essence of the theme. Each theme is established across the dataset.

The qualitative data analysis uncovered various strategies that 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" (*student*). In the quote the student talks about the necessity of being able to move forward. The students also reported enrichment strategies, such as consulting web pages, completing additional assignments, working on projects that align with their interests, and making adjustments to enrich assignments themselves. In addition, they preferred assignments that developed reflective and logical thinking and projects involving art and design. Furthermore, the students mentioned acceleration in different subjects and accelerating by skipping grades.

Our analysis further revealed gifted students' experiences with distinct types of teachers: *the teacher as a promoter or as an inhibitor*. The informants stated that they enjoyed competent teachers who conveyed 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" (*student*). 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. "They (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" (*student*). The

students perceive these teachers as not understanding what the gifted students can manage and 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. In addition, 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 organizational barriers 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.

### 3.3. Qualitative Findings—Teachers

We used the codes from the inductive thematic analysis [47] 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, varying their instruction, and supporting and motivating their students. Teachers identified a large student body and a lack of support from the school administration as challenges to facilitating differentiation and adapted education appropriately.

Analyzing 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" (*teacher*). Acceleration was 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" (*teacher*).

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 of *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" (*teacher*). Teachers cited digital tools, reversed education (or flipped learning), differentiating teaching materials, and grouping the gifted students to work on assignments as ways they vary their instruction.

The data analysis related to the theme of *systematic challenges* demonstrated that teachers experience obstacles that hinder them from facilitating adapted education for gifted students 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” (*teacher*). 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.

### 3.4. Mixed-Teachers and Students

The mixed methods research question guiding this study was as follows: 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? Table 3 presents the themes from the student interviews and those developed by analyzing 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 adapted education for example “More difficult assignments that also demands reflection and interpretation” (*teacher*); however, they do not explicitly refer to the measures they are not implementing. Similarly, the students reflected on their experiences and visions 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 others on the same level. “I wish there was space to create groups on each grade so students with extraordinary learning potential could get their own instruction” (*teacher*). In contrast, the students wanted to be grouped by levels but were often put in mixed ability groups where they did the lion’s share. “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” (*student*). 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 mainly discussed acceleration by 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 needing 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 teachers and students regarding grouping students by levels. The students expressed a desire for their education to be provided in a more homogenous setting regarding ability. At the same time, the teachers indicated a desire to create such groups but noted that they encountered challenges in doing so. “They 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 (...). Instead, 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” (*student*). Some teachers identified systematic issues, such as being alone with a large student group, that contribute 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.

## 4. 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 when they completed the survey; however, the students and teachers were not from the same schools. The results from this study display that

teachers are utilizing different methods for adapting and differentiating the education for gifted students. By triangulating the data in the mixed analysis, we found that teachers and gifted students mention similar types of strategies for enrichment, such as open assignments, reflection, group work, and more challenging assignments. This result points to convergence and complementarity. However, we also found divergence in the mixed analysis; for example, students mention acceleration by skipping grades, and teachers do not. We also found that teachers want to create homogenous ability groups in group work, and the students only have experience with heterogeneous ability groups.

The literature review shows that gifted students are diverse and need different supports and adaptations to properly develop their gifts or potential. Suppose they do not receive the proper support. In that case, they may risk developing various problematic behaviors, losing interest in school, developing negative self-esteem, and even dropping out of school [3–5]. The quantitative results from our study show that teachers agreed that using differentiated instruction for gifted students in their schools was feasible, and many reported incorporating it into their teaching practices. In the following section, we will discuss the different enrichment strategies we found in our study.

#### 4.1. Enrichment Strategies within Adapted Education

As Rasmussen and Lindgård [10] present, educational provisions for gifted students can be categorized into acceleration, segregation, and inclusion. Inclusion is the default for all students in the Norwegian educational system [24] (§ 1-1). However, establishing an inclusive and diverse classroom requires teachers to differentiate and enrich the instruction and curriculum to fit the gifted students' needs. Our quantitative results reflected a 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 [23] presented seven criteria that define best practices for enrichment programs. In the following section, we will discuss if adapted education for gifted students in Norway follows these best practices based on the results from our study. The first criteria are enriched K–12 curriculum and systematic daily enrichment. As these two are highly intertwined, we combined them for this discussion. Gagnè [23] 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. In the themes of *adapted education* and *individually adapted education*, we found different assignments, more challenging assignments, projects, reflections, and art and design. These responses fit the other three Ds, primarily difficulty and depth. Some teachers in our study referred to utilizing books from a higher grade level to assign more complicated work but did not mention compacting the curriculum. Our results indicate that density is not an enrichment provided for gifted students in Norway. These results align with the findings reported in a study in Sweden, where teachers differentiated instruction through challenging and open-ended tasks [47].

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 an accelerated personal curriculum [10,11]. Analysis for the theme *adapted education* showed that students reported full-time acceleration (skipping grades) and subject acceleration. In contrast, teachers only reported acceleration strategies involving books from a higher grade level. This result points to a divergence in the data material.

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 related to the myths and misconceptions concerning acceleration [12]. In this study, 35% of the teachers disagreed with the claim that schools allow space for adaptation, and 53% indicated that schools do not prioritize adaptation for gifted students. These results may indicate the same organizational difficulties we found in the student data. The lack of mention of different forms of acceleration by the teachers aligns with previous studies on teacher attitudes toward gifted education that have suggested that teachers are skeptical or even hostile toward acceleration strategies [16,18].

Gagné [23] further presents criterion 3, full-time ability grouping. In our results, *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 [24] (§ 8-2). However, flexible grouping is allowed. Nevertheless, our study indicated that students and teachers had not experienced this flexible grouping.

The students or teachers did not mention criteria 4 and 5. The analyses found no references to customized pacing or personal excellence goals for gifted students. Teachers addressed guiding 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 [30]. None of the students in our study mentioned that their teacher developed personal goals for them. Criterion 6, highly selective access, is irrelevant in Norway.

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; none of the teachers mentioned any early intervention strategies. Thus, we see indications that early intervention is lacking for gifted students.

#### 4.2. 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, ordinary, and gifted education. An equitable education requires differentiation for all. The teachers in our survey agreed that gifted students need the facilitation of an adapted education that surpasses ordinary education. Adapted education within ordinary education is not an individual legal right but a high ambition [31]. 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 be a topic for discussion.

According to Frantz and McClarty [8], 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 [23]. The analysis in this article shows that students and teachers point to difficulties and systematic challenges in providing gifted education. Some challenges relate to issues with ability grouping, for example, with how they interpret § 8-2 in the Education Act. Other challenges relate to lack of communication between teachers, issues with single subject 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 [8]. The official report uncovered that pedagogical and organizational differentiation opportunities exist that schools are not utilizing [34]. 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 a study from Sweden suggests these special groups might also be considered to conflict with inclusive education [27]. The egalitarian culture may be the barrier to appropriately adapting education for gifted students.

Gifted students need proper educational strategies to help develop their potential [3,4]. 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, including accelerated pace, ability grouping, enrichment, or differentiation within heterogeneous ability groups. Utilizing the results of our study, Norway may have a way to develop an appropriate education program for gifted students.

#### 4.3. Limitations and Implications for Further Research

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. 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. 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 the 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, we found similarities between the student and teacher material concerning the facilitation of adapted education and the challenges with adaptation. These similarities 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.

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**Institutional Review Board Statement:** The study was conducted in accordance with the Declaration of Helsinki, and was approved by SIKT (protocol code Ref.nr. 260230, 7 September 2020).

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The data presented in this study are available in Norwegian on request from the corresponding author. The data are not publicly available due to privacy.

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## Appendix A. Survey Design

### Appendix A.1. Survey Design: Students with Extraordinary Learning Potential

#### Information

Dear Teacher

Request to attend the research project “Students with extraordinary learning potential in Norway”.

[Identifying author information hidden in this document]

### **What does it mean to participate in this study?**

Participation in the study means to answer a web-based survey. The survey takes approximately 15 min to answer. There will be no collection of personal identifying information other than gender and years of experience as a teacher. The questions will first and foremost be on knowledge about the student group, adaption, characteristics you deem appropriate, and if you have or have had students you feel fit the definition.

### **What will happen with your information?**

All personal information will be confidential. The only indirect personal information that are stored temporarily is the IP address. The IP address will not be connected to the answers but will be used to identify how many answers we get from each school. If the survey is answered when you are connected to the school network, it is not considered an indirect personal information. All data will be anonymized and quantified. It will not be possible to recognize single participants from the survey in the publication.

### **Voluntary**

It is voluntary to participate in this study, and you can withdraw your consent at any time without providing a reason. If you have questions, please contact [author information hidden]. The study is approved by NSD.

### **Consent**

I have received information about the study and is willing to participate.

Answering the survey is considered active consent.

### **Welcome to the survey**

Thank you for participating and sharing your view, it is an important part of the research on this student group. It is important that you answer based on your own perception of the phenomenon, and not what you think others want to hear. Your considerations are anonymous and will not be able to identify you, or your school.

In this survey we will use the term “extraordinary learning potential”. This term also covers terms such as *begavet* (gifted) and *evnerik*. The term is in line with the new terminology used in NOU 2016: 14 “More to gain, better learning for students with high learning potential”.

*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, 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, my translation)

## *Appendix A.2. Background Information*

### **Information about your education, experience as a teacher, and general information about the school**

1. Gender?
  - a. Male
  - b. Female
2. What education do you have?
  - a. Teacher education (4 year)
  - b. Teacher education with an extra year
  - c. Master degree (5 year)
  - d. Master degree with an extra year
  - e. Other (please elaborate)
3. How long have you practiced as a teacher?
  - a. Open-ended question

4. Are you a contact teacher?
  - a. Yes
  - b. No
5. What age level do you teach?
  - a. Open-ended
6. How many students are there in your school?
  - a. Open-ended
7. What ownership does your school have?
  - a. Public
  - b. Private
8. How many residents are there in your school municipality?
  - a. Under 2000
  - b. 2000–4999
  - c. 5000–9999
  - d. 10,000–19,999
  - e. 20,000–49,999
  - f. 50,000 or more

**Students with extraordinary learning potential. In this part of the survey, you will answer questions related to students with extraordinary learning potential. The definition used in this survey is** *Students with extraordinary learning potential are students with a strong need and potential in academic subjects such as mathematics, reading/writing/language, science, technology, social science, 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, my translation).*

9. To what degree do you agree or disagree that there is space to work with differentiated assignments in school?
  - a. Totally disagree
  - b. Somewhat disagree
  - c. Neither agrees nor disagrees
  - d. Somewhat agrees
  - e. Totally agrees
10. To what degree do you agree or disagree that you as a teacher use differentiated assignments in your instruction?
  - a. Totally disagree
  - b. Somewhat disagree
  - c. Neither agrees nor disagrees
  - d. Somewhat agrees
  - e. Totally agrees
11. Where have you gained knowledge about students with extraordinary learning potential?
  - a. Open-ended
12. To what degree to you agree or disagree that you need more knowledge about students with extraordinary learning potential?
  - a. Totally disagree
  - b. Somewhat disagree
  - c. Neither agrees nor disagrees
  - d. Somewhat agrees
  - e. Totally agrees

13. To what degree do you need more knowledge about adaption for students with extraordinary learning potential?
  - a. Not at all
  - b. To a small degree
  - c. Neither nor
  - d. To a medium degree
  - e. To a high degree
14. What characterizes students with extraordinary learning potential in your view?
  - a. Open-ended
15. Here are different statements about students with extraordinary learning potential, which we want you to evaluate. This will of course vary from student to student, but we want you to, from your knowledge about the students, evaluate the statements. If you have little or no experience with this student group, we want you to answer based on your thoughts and opinions.

**To what degree do you agree or disagree that students with extraordinary learning potential are**

- a. Performing well in school
- b. Disruptive
- c. Unsocial
- d. Creative
- e. Energetic
- f. Diligent
- g. Curious
- h. Silent
- i. Annoying
- j. Extroverted
- k. Social
- l. Show an advanced language
- m. Know-it-all
- n. Willing to learn
- o. Introverted

The teachers could answer on a five-point scale from totally disagree to totally agree.

16. Have you had students with extraordinary learning potential?
  - a. No
  - b. Yes
17. If yes, how many?
  - a. Total
  - b. How many boys?
  - c. How many girls?
18. Do you currently have students with extraordinary learning potential?
  - a. No
  - b. Yes
19. If yes, how many?
  - a. Total
  - b. How many boys?
  - c. How many girls?
20. To what degree do you agree or disagree that students with extraordinary learning potential need adaption beyond the scope of ordinary adapted education?
  - a. Totally disagree
  - b. Somewhat disagree

- c. Neither agrees nor disagrees
  - d. Somewhat agree
  - e. Totally agree
21. To what degree do you agree or disagree that the school as a system have space to adapt the instruction for students with extraordinary learning potential?
- a. Totally disagree
  - b. Somewhat disagree
  - c. Neither agrees nor disagrees
  - d. Somewhat agree
  - e. Totally agree
22. To what degree do you agree or disagree that the school as a system prioritize adaption for students with extraordinary learning potential?
- a. Totally disagree
  - b. Somewhat disagree
  - c. Neither agrees nor disagrees
  - d. Somewhat agree
  - e. Totally agree
23. What kind of subject adaption would you as a teacher give students with extraordinary learning potential?
- a. Open-ended
24. How has the students with extraordinary learning potential been identified? (Several answers possible)
- a. Haven't had students with extraordinary learning potential
  - b. Have identified them myself
  - c. Other teachers have identified them
  - d. Parents have identified them
  - e. The student themselves have told me
  - f. PPT/BUP or other professionals have identified them
  - g. Other please elaborate
25. Do you have any comments?
- a. Open-ended

Thank you so much for your participation!

## Appendix B. Codebook

| Codes and References in the Teachers' Answers to an Open-Ended Survey Question |                                                                                                                                                                                    |    |    |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|
| 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<br>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.<br>In mathematics, they get assignments from older students' curriculums when they have showed they know everything in the ordinary curriculum." | 16 | 16 |
| Issues with acceleration                                                       |                                                                                                                                                                                    | 0  | 0  |
| Group-work                                                                     | "Group-work or projects where the gifted students work together. They often speak the same language and have a need to stretch themselves further."                                | 2  | 2  |

| <b>Codes and References in the Teachers' Answers to an Open-Ended Survey Question</b> |                                                                                                                                                                                                                                                                          |    |    |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|
| Compacting curriculum                                                                 | "Let them skip work they already know."                                                                                                                                                                                                                                  | 1  | 1  |
| Grade-scores                                                                          |                                                                                                                                                                                                                                                                          | 0  | 0  |
| Homework                                                                              | "Adapted homework."<br>"Homework on their level."                                                                                                                                                                                                                        | 5  | 5  |
| Motivation                                                                            | "Do not 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. However, in practice, this is difficult to do, because of a large student-body.<br>You can give them extra challenges, but you do not have time to follow them up during a normal day." | 7  | 7  |
| 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  |
| Projects                                                                              |                                                                                                                                                                                                                                                                          | 0  | 0  |
| Reflection                                                                            | "Make space for students' own reflection.<br>More difficult assignments that also demand reflection and interpretation."                                                                                                                                                 | 3  | 3  |
| Writing                                                                               |                                                                                                                                                                                                                                                                          | 0  | 0  |
| Asking for help                                                                       |                                                                                                                                                                                                                                                                          | 0  | 0  |
| Adapted education                                                                     | "Adapted education."<br>"Adapt the difficulty on assignments, more advanced reading, adapt assignments online, online materials in math etc."<br>"I wish to adapt the assignments so the student becomes motivated and need to challenge themselves."                    | 44 | 45 |
| Challenges                                                                            | "Challenging questions, assignments, and homework."<br>"Give them assignments with a more challenging wording, give them assignments I know will be challenging for them."                                                                                               | 47 | 47 |
| Make your own challenges                                                              | "I often let the student themselves create their own questions."                                                                                                                                                                                                         | 2  | 2  |
| <b>Teacher codes</b>                                                                  | <b>Codes generated from the teachers answers that did not fit any of the student codes.</b>                                                                                                                                                                              |    |    |
| Digital tools                                                                         | "When you use digital tools, it is easier to differentiate the instruction in different levels."                                                                                                                                                                         | 1  | 1  |
| Student-teacher conference                                                            | "Talking 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.<br>Guidance and support if necessary."                                                                   | 10 | 10 |
| 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  |



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