

Article

Teachers' Experiences of Inclusion in Classroom Settings

Pål Arild Lagestad ^{1,*} , May Line Rotvik Tverbakk ², Anne Marit Valle ² and Natallia Badhanovich Hanssen ² ¹ Faculty of Teacher Education and Arts, Nord University, 7600 Levanger, Norway² Faculty of Education and Arts, Nord University, 8049 Bodø, Norway; may.l.tverbakk@nord.no (M.L.R.T.); anne.m.valle@nord.no (A.M.V.); natallia.b.hanssen@nord.no (N.B.H.)

* Correspondence: pal.a.lagestad@nord.no

Abstract: Inclusion, as a general term, touches upon the most important social aspects of human life—the experience of being valuable and the sense of belonging. The aim of the study was to examine the assessments of teachers at dyslexia-friendly schools (DFS) on how their students are being included and accepted by other students in class, and if these experiences differ between teachers that work in primary schools, secondary schools, and upper secondary schools. A questionnaire was administered to 433 teachers in Norway working at ordinary schools that were certified as DFS. A main finding was that almost all of the teachers reported a high, or very high, acceptance of differences regarding social and intellectual skills among students with special educational needs (SEN). Our findings about the high levels of social inclusion among students with SEN in DFS point towards the importance of including students with SEN in ordinary classes, not in special schools. Another main result was that teachers from primary schools reported a higher level of inclusion among SEN students than teachers from secondary schools. We argue that an explanation of this finding is that teachers working in primary schools have a relatively greater focus on inclusion in their teacher education. Other explanations may be a lower number of SEN students at primary schools, and that students at secondary schools experience environmental and biological changes that may affect their inclusion. In accordance with previous research, we find that in terms of inclusion in the classroom, the teacher's role and behavior are of critical importance.

Keywords: inclusion; students; teachers' experiences; primary school; secondary school; upper secondary school



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1. Introduction

Inclusion represents a crucial step in societies that are moving towards democracy, social justice, and equity. Several authors have claimed that inclusion touches upon the most important social aspects of human life: the experience of being valuable and the sense of belonging to a social group [1–3]. According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO), as well as UN Sustainable Development Goal 4, which is to ensure inclusive and equitable quality education and promote lifelong learning for all [4], inclusion and inclusive education are among the goals of most European school systems [5]. In an educational context, this means that all students, including those with special educational needs (SEN), have the right to participate fully and actively in mainstream schools that offer them a varied range of opportunities [6]. A possible way of approaching inclusion from a national perspective, in line with the Organization for Economic Cooperation and Development (OECD) [7], is to improve the system level, e.g., through governmental strategies and teacher education. In this regard, Mendoza and Heymann [8] found that teacher education has a great impact on students' views of inclusion, and therefore can constitute a connecting link between the vision of inclusion and teaching practices in schools.

From a theoretical point of view, students' inclusion is important according to self-determination theory (SDT). SDT identifies relatedness as one of the main basic needs

that is important for all humans [9,10]. Deci and Ryan [10] explained relatedness as an experience of a sense of belonging and attachment to other people. The basic psychological needs theory (BPNT) within SDT elaborates on the concept of evolved psychological needs and their relationship to psychological health and well-being. The theory asserts that psychological well-being and optimal functioning among students require relatedness and that the school should focus on creating student relatedness at school. Indeed, the basic need for relatedness is essential for students to achieve inner motivation, integration, and well-being at school. Several studies have shown that relatedness is an important factor in the experience of well-being at school [9–12]. Given this background, the aim of the current article is to examine teachers' assessments of how their students with SEN are being included in class.

In Norway, inclusion is ensured through the establishment of inclusive schools, and the principle of inclusion is incorporated in corresponding legislation and is also highlighted in central steering documents and national curricula for primary, secondary, and upper secondary education [13,14]. However, inclusion remains a challenge and an unrealized wish for many students with SEN [15,16]. However, there has been a clear tendency towards the use of alternative learning areas, such as special education units or bases and, in accordance with national data, 53% of students with SEN receive their SEN support outside of the classroom [4,17,18]. This support is carried out by teachers who do not have any formal qualification in special needs education or by assistants without any qualifications to teach [14,19,20]. This is, to some extent, problematic because students are excluded from the classroom with such a strategy. A risk exists that students do not get the needed learning support and become excluded from social participation. The consequences of this may lead to students' low levels of confidence and self-esteem [21], and students may also appear mentally tired or anxious and exhibit either internalizing (withdrawal) or externalizing (acting out) behavior. In this regard, research has shown that students with SEN are less popular than their class groupmates, have fewer friends, and participate less often as a member of a subgroup [22,23]. They may also have greater difficulty forming strong, positive relationships with both teachers and peers [24]. Therefore, this negative cycle may contribute to the diminishment of both interactions and relationships, which can further inhibit adequate academic and social development [25]. Dyson [26] reported that the classroom was the primary setting for students' social inclusion and that, among students in both Canada and China, only half of the students were socially included within elementary school classrooms.

Another aspect of relatedness concerns teachers' attitudes towards social inclusion. Abed and Shackelford [27] identified teachers' attitudes about and perspectives on inclusive education as a main factor to success in the implementation of inclusive education. Here, it is also appropriate to include the findings of Weiss [28], who reported that the structural framework, e.g., school size, school type, etc., did not play a considerable role in inclusion. However, he also found that the key result in terms of teachers' role in students' social inclusion depends, above all, on the teachers themselves, their characteristics, and their participation in joint activities. In addition, Moriña and Orozco [29] emphasized the centrality of the teacher's role. In their study, they described the beliefs, knowledge, designs, and actions of primary education teachers who carry out inclusive pedagogy as constituting examples of "good teachers" who may inspire others. Moriña and Orozco also observed that teachers who applied inclusive pedagogy believed in the richness of diversity, used a student-centered learning approach, considered the affective and emotional aspects of learning, and based their teaching on active methodologies. Moreover, the results from a study that examined inclusive practices in school by examining how teachers realized inclusion in school for all students indicated that inclusive practices were focused on the teachers' efforts to achieve inclusion [30]. In their investigation, the teachers achieved the goal of social inclusion through the way that they organized their teaching, by establishing a sense of belonging to the community, by developing social competence among the students, and by facilitating academic achievement. The largest challenge to success appeared to be

the differentiation that existed in meeting students' diversity. Their findings demonstrated that satisfactory inclusive practices depended on close collaboration. Furthermore, it was crucial that the teachers worked to facilitate equal education and foster belongingness in the learning environment, and that their students experienced the achievement of their individual goals at school.

A literature search of teachers' perceptions about students' inclusion indicated that previous literature from countries all over the world (Jordan, Ireland, India, and the U.S.) has focused largely on teachers' perceptions of the factors that influence the implementation of social-oriented approaches among student groups with disabilities [31–36]. Rodden et al. [32] asserted that previous research has mainly focused on primary and special schools. Few studies have examined teachers at ordinary schools and their perceptions of whether students are being included at different school levels, including primary schools, secondary schools, and upper secondary schools. Teachers at primary schools have a greater awareness of social inclusion during their teacher education than teachers in upper secondary schools [37]. The transition from primary school to secondary school involves not only biological changes, but also environmental changes with a new school location, new teachers, new subjects, and new classmates [38,39]. These biological and environmental changes may affect social inclusion and create differences in experienced social inclusion between different school levels.

In Norway, dyslexia-friendly schools (DFS) work towards the goal of ensuring all students' right to and opportunities for inclusive education. Ordinary Norwegian schools (primary, secondary, and upper secondary schools) must apply to the Norwegian Dyslexia Association [40] and meet 10 criteria to be approved as a DFS. In the context of this study, it is worth highlighting that DFS also works systematically towards offering students equal opportunities for learning and social participation. It is important to note that these DFS are ordinary Norwegian schools, and that the teachers at these schools have no formal training, beyond ordinary education, to become teachers.

Based on the previous discussion, the research question of the study is as follows: How do teachers at DFS assess how their students with dyslexia, speech, and math difficulties (DSMD) are included and accepted by other students in class, and does this assessment differ between teachers that work in primary schools, secondary schools, and upper secondary schools? Although this is a study carried out in Norway, such knowledge will be of substantial value in countries globally, where many students have DSMD. Even if some previous literature exists related to students' inclusion [21–36], additional knowledge is needed about the inclusion of this vulnerable group of students.

2. Methods and Materials

2.1. Design

To answer the above research question, some of the quantitative data from a cross-sectional study, where a questionnaire was used to examine DFS teachers' experiences of their students' inclusion in class, were included. The questionnaire also comprised questions about which school level they taught: primary school (age 6–13), junior high school (age 14–16), or high school (age 17–19). The teachers were fully informed about the protocol prior to participating in the study and provided voluntary and written consent for participation in the project. Ethical research regulations for research on children were followed, and approval to use the data and conduct the study was granted by the Norwegian Centre for Research Data (NSD).

2.2. Participants

The participants in the study were teachers from dyslexia-friendly schools (DFS) in Norway. The total sample size of the participants was approximately 2500 teachers. All the teachers at these schools were invited to complete an electronic questionnaire. From this cluster, 433 teachers answered the questionnaire, and 385 (293 women and 92 men) had valid data according to all the variables included in the analysis. This yielded a response

rate of 17%, which is limited. However, based on the gender distribution, the distribution of education level, subjects, and the teaching experience of the participants—which reflects the natural distribution among teachers at dyslexia-friendly schools (DFS) in Norway, we argue that teachers randomly participated in the survey. Years of teaching experience varied from 1 to 43 years (mean = 16, SD = 9.6). The teachers' education levels varied between three years of teacher education (5%), four years of higher education (23%), five years of higher education (50%), and a master's degree (17%). Most of the teachers were educated as primary school teachers (55%), but some were educated as preschool teachers (5%), subject teachers (13%), or had a practical pedagogical education (23%). In total, 19% of the teachers had special needs education. The teachers' subjects were Norwegian (55%), mathematics (42%), English (36%), social science (36%), religion (32%), science (28%), physical education (25%), and other ordinary subjects in Norwegian schools. The participants' distribution of gender, years of teaching experience, education and education level, and teaching subjects most likely reflects the actual distribution in Norwegian schools.

2.3. Procedures

A questionnaire was developed in collaboration with the professional council of the Norwegian Dyslexia Association. A large questionnaire with 43 main questions was developed related to teachers' competence, their pedagogical strategies, the organization of their teaching, and the inclusion of students. In this work, we chose to develop our own questions to be able to include questions of great importance according to teachers' work related to students with DSMD. Furthermore, it was crucial to design these questions according to the principle of having high face validity in all questions [41]. In the process of designing the questions, several researchers collaborated, discussed the questions, and rewrote them. Finally, a pilot of the questionnaire was administered to some teachers, and their reflections about the questions were obtained. A representative of the professional council of the Norwegian Dyslexia Association also provided feedback about the questionnaire.

Seven questions related to social inclusion were included in this study. These questions were: (1) "Do you feel that students accept inequalities according to differences in social and intellectual skills among students?", (2) "How many friends do students with dyslexia, speech, and math difficulties have in class?", (3) "How many friends do students with dyslexia, speech, and math difficulties have in class compared to other students?", (4) "How do you feel students with dyslexia, speech, and math difficulties are included in discussions in class?", (5) "How do you feel students with dyslexia, speech, and math difficulties are included by having contact with other students in class?", (6) "How do you feel students with dyslexia, speech, and math difficulties are included by having contact with the teacher in challenging situations in class?", and (7) "How do you feel students with dyslexia, speech, and math difficulties are included by being contacted by other students". All the questions used a five-point Likert scale ("very little extent", "little extent", "medium extent", "large extent", and "very large extent"). Five-point Likert scales are commonly used in questionnaire studies, and the five answer options—two at each end, one in the middle (medium level), and the option between the middle and each end—are both valid and reliable in the case of inclusion. A study showed that data quality, internal consistency, and discriminative validity suggest that the five-point scale version should be used in future research [42]. In the questionnaire, the teachers were also asked to identify whether they mainly worked in a primary school (1st to 7th grade, age 6–13), a secondary school (age 14–16), or an upper secondary school (age 17–19).

2.4. Statistical Analyses

To answer the research question, descriptive statistics (percentages) are used to indicate teachers' experience of their students' inclusion in class. To examine the differences between experiences of teachers in primary school, secondary school, and upper secondary school, the Kruskal-Wallis nonparametric test was used [43]. Post hoc tests between the groups were conducted with the Mann-Whitney U-test using Bonferroni corrections. The

significance level was set to $p < 0.05$. All statistical analyses were carried out in SPSS, Version 25 (IBM, Armonk, NY, USA).

3. Results

Table 1 shows that 84% of the teachers reported a high or very high acceptance among students in the class in terms of differences in social and intellectual skills. No teachers reported a low level of acceptance of differences in social and intellectual skills among the students in their class.

Table 1. Teachers' experience of the students' acceptance of differences in class in terms of social and intellectual skills.

	Very Low	Low	Medium	High	Very High	N
Acceptation of differences according to social and intellectual skills (%)			16	54	30	429

Table 2 shows that the teachers reported that only 2–6% of the students seldom or never were involved in school discussions in class, or seldom or never were in contact with students or teachers in class. The teachers answered that most of the students often or always were socially included in these areas in class.

Table 2. Teachers' experience of students with DSMD and their social inclusion in class.

	Never	Seldom	Sometimes	Often	Always	N
Are involved in school discussions (%)		6	32	48	14	427
Have contact with other students (%)		2	21	61	16	427
Have contact with teachers (%)		3	25	56	16	427
Are contacted by students (%)	1	3	24	56	16	425

Table 3 indicates that only 8% of the teachers reported that their students with DSMD had few friends in class. In addition, 68% of the teachers answered that these students were friends with most or every student in class.

Table 3. Teachers' experience of students with DSMD and their number of friends in class.

	No Friends	Few Friends	50% Friends	Friends with Most	Friends with Everyone	N
Number of friends in class (%)		8	24	62	6	425

Table 4 shows that 84% of the teachers reported that their students with DSMD had the same number of friends in class as students without DSMD. Furthermore, only 1% of the teachers answered that their students with DSM had more or many more friends in class compared to students without DSMD. On the other hand, 15% of the teachers reported that their students with DSMD had fewer or much fewer friends in class compared to students without DSMD.

Table 4. Teachers' experience of students with DSMD and their number of friends in class, compared to other students.

	Much Fewer Friends	Fewer Friends	Equal Friends	More Friends	Many More Friends	N
Number of friends in class compared to other students (%)	1	14	84	1		420

Statistical analyses of experiences of inclusion among teachers in primary school, junior high school, and high school showed no significant differences between the teacher groups and their experience of acceptance of differences in social and intellectual skills among their students ($X^2 = 5.5, p = 0.063$). There was also no significant difference between teachers from primary school, secondary school, and upper secondary school related to DSMD students and the number of friends in class, or number of friends in class compared to other students ($X^2 = 4.5, p = 0.104$ and $X^2 = 2, p = 0.377$, respectively). However, regarding being included in school debates ($X^2 = 5.6, p = 0.018$), being included by having contact with other students ($X^2 = 9.7, p = 0.002$), being included by having contact with the teacher in challenging situations in class ($X^2 = 33.3, p = 0.000$), and being included by being contacted by other students ($X^2 = 12.8, p = 0.000$), there were significant differences between teachers from primary school, secondary school, and upper secondary school in terms of the reported inclusion of DSMD students. Follow-up analysis using the Mann–Whitney U test revealed that teachers from secondary school reported lower inclusion rates than teachers from primary school in terms of acceptance of differences in social and intellectual skills, having contact with other students in the classroom, having contact with the teachers when challenges occur, and being contacted and included by other students ($p < 0.05$). In relation to inclusion by being contacted by other students, teachers from secondary school also reported lower inclusion rates than teachers from upper secondary school ($p < 0.05$). These findings are presented in Figures 1–4.

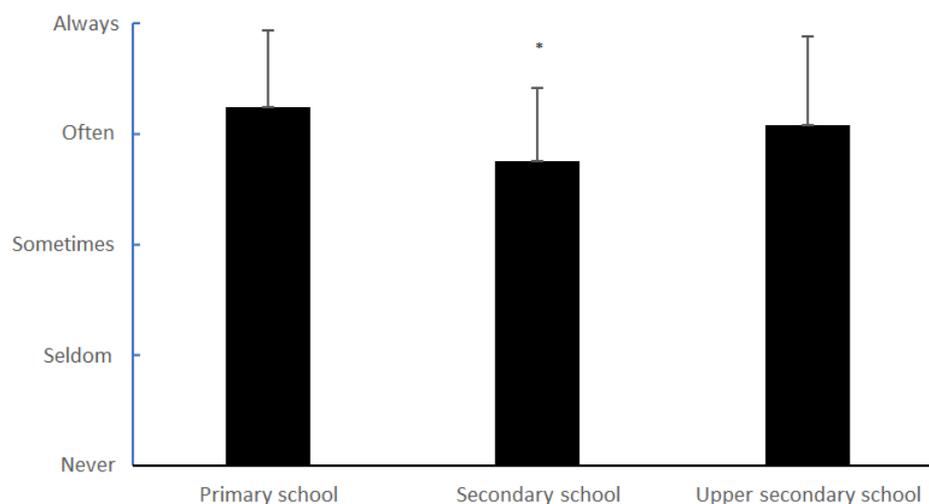


Figure 1. Teachers' experiences of students' acceptance of differences in social and intellectual skills. * Indicates a significant difference between secondary school teachers and primary school teachers at the $p < 0.05$ level.

Figure 1 shows a significant difference between secondary school teachers and primary school teachers in terms of their experience of how often students in their classes are accepted for their differences related to social and intellectual skills, in which secondary school teachers reported the lowest level of acceptance.

Figure 2 shows a significant difference between secondary school teachers and primary school teachers concerning how often students with DSMD have contact with other students in the classroom, in which secondary school teachers report the lowest level of contact among the students.

Figure 3 indicates a significant difference between secondary school teachers and primary school teachers in terms of how often students with DSMD have contact with the teachers when challenges occur, in which secondary school teachers reported the lowest level of contact.

Figure 4 shows a significant difference between secondary school teachers and, respectively, primary school teachers and upper secondary school teachers, in terms of how often

students with DSMD are contacted and included by other students, in which secondary school teachers reported the lowest level of contact.

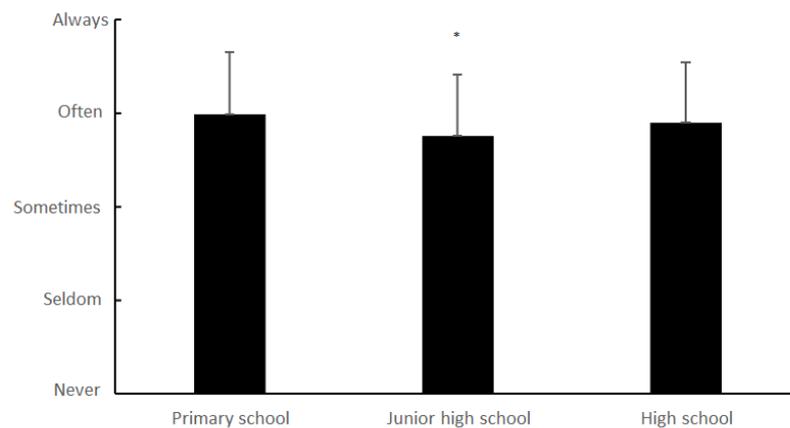


Figure 2. Teachers' experiences of how often students with DSMD have contact with other students in the classroom. * Indicates a significant difference between secondary school teachers and primary school teachers at the $p < 0.05$ level.

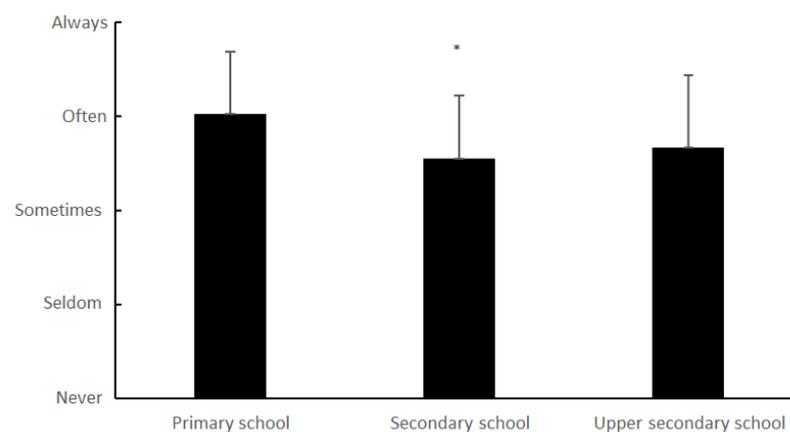


Figure 3. Teachers' experiences of how often students with DSMD have contact with the teachers when challenges occur. * Indicates a significant difference between secondary school teachers and primary school teachers at the $p < 0.05$ level.

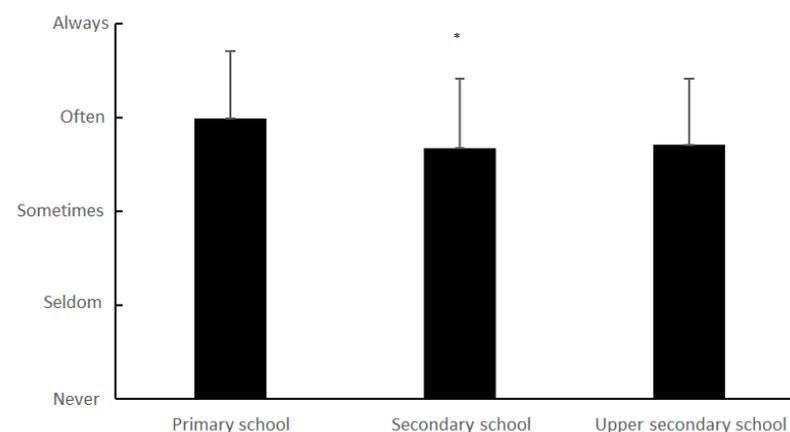


Figure 4. Teachers' experiences of how often students with DSMD are contacted and included by other students. * Indicates a significant difference between secondary school teachers and, respectively, primary school teachers and upper secondary school teachers at the $p < 0.05$ level.

4. Discussion

4.1. High Inclusion of Students with SEN

The first main finding was that almost all the teachers reported a high or very high acceptance of differences regarding social and intellectual skills among the students. The teachers answered that most of the students with SEN often or always were involved in school discussions in class or were in contact with other students or the teacher. Very few teachers reported that the students with SEN seldom or never were involved in such inclusion. Furthermore, only 8% of the teachers indicated that their students with DSMD had few friends in class. In total, 68% of the teachers reported that these students were friends with most or every student in class, and 84% of the teachers stated that these students had the same number of friends in class as students without DSMD. In contrast to the study by Dyson [26], who found that the classroom was the main place for social inclusion and that social inclusion was only half fulfilled among the students from two countries, our findings related to Norwegian SEN students' social inclusion in ordinary class from a teachers' perspective are markedly positive.

We have argued that social inclusion in class touches upon the most important social aspects of human life—the experience of being valuable and the sense of belonging to a social group [1–3]. Other research identifies students with SEN as a vulnerable group according to social inclusion because of low levels of confidence and self-esteem [21]. Research emphasizes students with SEN as being less popular than their class groupmates, with fewer friends, and participating less often as a member of a subgroup [22,23]. They may also have greater difficulty forming strong, positive relationships with teachers and peers [24]. Our findings can be viewed as more positive concerning social inclusion in terms of students with SEN than the previous literature [21–24]. These contradictory findings may be explained by different measurements, by distinct school cultures in different countries, and by different participants with dissimilar disabilities included in the studies. It is also worth highlighting that our findings are based on teachers' perspectives about students' social inclusion, and not on students' own experiences. On the one hand, and from a critical perspective, our positive finding related to social inclusion in which most students are being included from a teacher's perspective may be biased by teachers who experience social inclusion in their class as being better than it is in reality. On the other hand, we assert that teachers observe their students for many hours a week and that their observations about students' inclusion may be valid and reliable.

Our findings are, to a certain extent, in accordance with Ainscow [6], who claimed that all students have the right to participate fully and actively in class, although our results also show that some teachers also reported that their students were only slightly socially included at school and had few friends. Working for the inclusion of all students in school is, therefore, of critical importance. An increased international focus on inclusion worldwide, where inclusion and "education for all" constitute a strong political vision, especially for students with SEN within mainstream contexts [3,5], is the main goal indicated by the results of this work.

From a theoretical perspective, we have pointed towards the importance of relatedness as a main basic need that is essential for all humans to achieve and maintain psychological health and well-being [9,10]. In the introduction, we highlighted that the experience of relatedness is crucial for psychological well-being and optimal functioning among students, and thus schools should focus on increasing students' experience of relatedness at school. The extant literature has also demonstrated that relatedness imparts a particularly positive effect on students' motivation and well-being at school [9–12]. Considering this theory, our findings are positive. All of our results related to both the experience of social inclusion of students with SEN according to the teachers and other students, and the experience of inclusion according to work in the classroom, indicate that students, in general and from the teacher's point of view, are included in all of these areas. Furthermore, our findings of high levels of social inclusion among students with SEN in ordinary schools suggest the importance of including those students in ordinary classes and not in segregated groups.

This accords with the Norwegian school system as it is based on the principles of inclusive, adapted, and equal education, which are explicitly specified in the Educational Act [13].

4.2. Inclusion Is Mostly Observed in Primary School

The second main finding of the study was that teachers from secondary school reported a lower level of social inclusion than teachers from primary school in terms of acceptance of differences in social and intellectual skills, contact with other students in the classroom, contact with the teachers when challenges occur, and being contacted and included by other students. In relation to inclusion by being contacted by other students, teachers from secondary school also reported lower inclusion rates than teachers from upper secondary school. A possible explanation for our result is that teachers in primary school are more trained in how to teach students basic social skills and possess a greater awareness of the importance of social inclusion, as a part of their preparation to become teachers [37]. This may be the reason why they perceive themselves to be more competent than teachers in upper secondary schools, where there is a stronger focus on teaching subjects.

Another possible explanation may be related to the transitions from primary school to secondary school and environmental and biological changes. According to previous research [39], such transitions—which include multiple changes—make students more vulnerable in their everyday lives. After seven years at (the same) primary school, most students in Norway change schools when they start secondary school [38,39]. This transition brings many changes on both environmental and biological levels [39]. Environmental changes comprise altered school settings with a new school location, new teachers, new subjects, and new classmates. Furthermore, biological changes relate to maturation and puberty occurring during the three years of secondary school (age 13–15). This period of environmental and biological changes may affect social inclusion negatively.

Finally, in Norway, significantly more students in secondary school receive special needs education, compared with students in primary school [17,18]. For instance, three times as many students with SEN in 10th grade receive special needs education compared with students in the 1st grade, a trend that is increasing. The much higher number of students with SEN at secondary school compared to primary school could also have an impact on their teachers' experience of their inclusion in class.

4.3. Inclusion and the Importance of the Teacher

In terms of the aim to create student inclusion at school, we emphasize the importance of incorporating the previous literature about how to optimally include students at school. Weiss [28] suggested that the structural framework did not play a substantial role, but that the key factor of the teacher's role in students' social inclusion depends on the teachers themselves, their characteristics, and their participation in joint activities. In addition, Moriña and Orozco [29] highlighted the teacher's role and pointed towards beliefs, knowledge, designs, and actions of primary education teachers who carry out inclusive pedagogy. In their study, they found that teachers who applied inclusive pedagogy believed in the richness of diversity and used a student-centered learning approach. Furthermore, these teachers considered the affective and emotional aspects of learning and based their teaching on active methodologies. This finding is supported by a Norwegian study, which examined inclusive practices in schools [30]. This study found that the teachers achieved social inclusion by the way that they organized their teaching. Establishing a sense of belonging to the community was central, as was developing social competence among the students and facilitating academic achievement. It was also crucial that the teachers worked to facilitate equal education and foster belongingness in the learning environment, and that their students experienced the achievement of their individual goals at school.

Rodden et al. [32] examined the theoretical and practical knowledge base of Irish secondary teachers in terms of the inclusion of learners with autism spectrum disorder (ASD) using an ecological critical discursive perspective. Findings revealed teachers' strong desire to include students with ASD in their classrooms. Teachers' discourses exposed

their sense of low self-efficacy in relation to the pedagogical skills required to meet the needs of learners with ASD. At a school level, teachers positioned themselves outside of the dominant school discourse on special education needs. Using critical discourse analysis (CDA), teachers' narratives re-focused their attention on issues, such as ineffective legislation and inadequate policies at the national level and identified the impact that these have at a micro-analytical level on teachers' practices in relation to inclusion.

Finally, we refer to Abed and Shackelford [27], who highlighted that successful implementation of inclusive education depends on teachers' attitudes about and perspectives on inclusive education.

4.4. Strengths and Limitations of the Study

This study has several strengths that are worth mentioning. The sample included different school types, providing a representative sample of teachers at dyslexia-friendly schools (DFS) in Norway in terms of gender distribution, teaching experience, subjects, and education level, which most likely reflects the natural distribution of teachers' characteristics in Norwegian schools. Furthermore, to the best of the authors' knowledge, this is the first study related to this specific research area among Norwegian teachers. However, the findings on the importance of education and practice in this study may also be relevant in other countries. In addition, the present study has certain limitations. The ability to generalize the findings is, to a certain extent, constrained due to the uniqueness of the sample and the lack of random selection of the participants. Nevertheless, due to the large sample size and the fact that the data probably provide a representative sample of teachers at schools in Norway, we argue that the findings are largely generalizable. The response rate of 17% is relatively low, and a statistical test is needed to determine if the sample is representative. However, the fact that the gender distribution and the distribution of education level, subjects, and teaching experience of the participants reflects the natural distribution among teachers at dyslexia-friendly schools (DFS) in Norway may indicate that the sample is indeed representative. Moreover, the research questions were not designed for or validated in other studies, but rather developed by some of the researchers of the current study. However, we assert that all of the questions used in this study have high face validity [41] and include important aspects of inclusion. However, additional questions measuring more knowledge related to inclusion may have been preferable. The self-reported answers could also be validated with open questions or more questions, a strategy that future studies should adopt. Finally, from a critical perspective, it could be argued that teachers' self-reported experiences of inclusion are limited and complicated compared to studying students' self-reported experiences of inclusion. We contend, however, that teachers' daily observations of their students are also valid and reliable measures of students' inclusion, but future research should critically investigate these aspects from a student perspective.

5. Conclusions

Our findings demonstrate that almost all of the teachers reported a high or very high acceptance of differences among the students regarding differences in social and intellectual skills in the student group. The teachers indicated that most of the students with SEN were involved in school discussions in class or were in contact with other students or the teacher. Very few teachers reported that the students with SEN seldom or never were involved in such social inclusion. Furthermore, only 8% of the teachers indicated that their students with DSMD had few friends in class. Indeed, as many as 68% of the teachers reported that these students were friends with most or every student in class, and basically had the same number of friends in class as students without DSMD. Our findings of high levels of social inclusion among students with SEN in ordinary schools suggest the importance of including students with SEN in ordinary classes, and not in segregated groups, which is in accordance with the principles of inclusive, adapted, and equal education in Norway.

Another main finding was that teachers from secondary schools reported a lower level of social inclusion than did teachers from primary schools. We have argued that this could be explained by the fact that teachers in primary schools are relatively more focused on social skills as a part of their preparation to become teachers, and that the number of students with SEN is lower in primary schools. Finally, we assert that our findings may be caused by the transitions from primary school, where students most likely have been in the same class for seven years, to another (secondary) school. This transition brings changes on both an environmental level, with a new school location, new teachers, new subjects, and new classmates, as well as a biological level, in terms of maturation and puberty that occur at this age. Based on our results, we suggest that subsequent research examine the process of transition more closely, particularly from the student perspective, using a diverse range of methodologies.

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References

1. Lagestad, P.; Lyngstad, I.; Bjerke, Ø.; Ropo, E. High School students' experiences of being 'seen' by their physical education teachers. *Sport Edu. Soc.* **2019**, *25*, 173–184. [CrossRef]
2. Hausstätter, R.S.; Vik, S. Spesialpedagogisk teoridannelse. [The creation of theory of special needs pedagogy]. In *Spesialpedagogikk: Fagidentitet og Samfunnsnytte [Special Needs Pedagogy: Subject Identity and Social Benefit]*; Hausstätter, R.S., Reindal, S.M., Eds.; Cappelen Damm Akademisk: Oslo, Norway, 2016; pp. 37–48.
3. Haug, P. Understanding inclusive education: Ideals and reality. *Scand. J. Disabil. Res.* **2017**, *19*, 206–217. [CrossRef]
4. United Nations. The Sustainable Development Goals Report. Department of Economic and Social Affairs (DESA). 2022. Available online: <https://hlpf.un.org/2022/programme/sdgs-in-focus-sdg-4-and-interlinkages-with-other-sdgs-quality-education> (accessed on 12 February 2020).
5. UNESCO. Guide for Ensuring Inclusion and Equity in Education; UNESCO: Paris, France, 2017. Available online: <https://unesdoc.unesco.org/ark:/48223/pf0000248254> (accessed on 14 March 2020).
6. Ainscow, M. Foreword. In *Dialogues between Northern and Eastern Europe on the Development of Inclusion: Theoretical and Practical Perspectives*; Hanssen, N.B., Hansèn, S.-E., Ström, K., Eds.; Routledge: London, UK, 2021; pp. 13–22.
7. OECD. *Education at a Glance 2016. OECD Indicators*; OECD Publishing: Tokyo, Japan, 2016; Available online: <https://www.oecd-ilibrary.org/docserver/eag-2016-en.pdf?expires=1699867341&id=id&accname=guest&checksum=9C5D6EA06BFA5F8747A8CD2AC381C7E6> (accessed on 20 April 2022).
8. Mendoza, M.; Heymann, J. Implementation of inclusive education: A systematic review of studies of inclusive education interventions in low- and lower-middle-income countries. *Int. J. Disabil. Dev. Educ.* **2022**, 1–18. [CrossRef]
9. Deci, E.L.; Ryan, R.M. The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychol. Inq.* **2000**, *11*, 227–268. [CrossRef]
10. Deci, E.L.; Ryan, R.M. *Handbook of Self-Determination Research*; The University of Rochester Press: Rochester, NY, USA, 2002.
11. Standage, M.; Gillison, F.B.; Ntoumanis, N.; Treasure, D.C. Predicting students' physical activity and health-related well-being: A prospective cross-domain investigation of motivation across school physical education and exercise settings. *J. Sport Exerc. Psychol.* **2012**, *34*, 37–60. [CrossRef]
12. Ciyin, G.; Erturan-Ilker, G. Student physical education teachers' well-being: Contribution of basic psychological needs. *J. Educ. Train. Stud.* **2014**, *2*, 44–51. [CrossRef]
13. Education Act. Lov om Grunnskolen og den Vidaregåande Opplæringa [Law about the Norwegian School. 1998. Available online: <https://lovdata.no/dokument/NL/lov/1998-07-17-61> (accessed on 17 February 2020).

14. Olsen, M. A practical–theoretical perspective on the inclusive school in Norway. In *Dialogues between Northern and Eastern Europe on the Development of Inclusion: Theoretical and Practical Perspectives*; Hanssen, N.B., Hansèn, S.-E., Ström, K., Eds.; Routledge: London, UK, 2021.
15. Rosado-Castellano, F.; Sánchez-Herrera, S.; Pérez-Vera, L.; Fernández-Sánchez, M.J. Inclusive Education as a Tool of Promoting Quality in Education: Teachers' Perception of the Educational Inclusion of Students with Disabilities. *Educ. Sci.* **2022**, *12*, 471. [[CrossRef](#)]
16. Jenssen, F.; Frønes, T.S.; Kjærnsli, M.; Roe, A. Lesing i PISA 2000–2018: Norske elevers lesekompetanse i et internasjonalt perspektiv [Reading in PISA 2000–2018: Norwegian students' reading competence in the international perspective. In *Like Muligheter til God Leseforståelse. 20 år med lesing i PISA [Equal Opportunities for Good Reading Comprehension. 20 Years with Reading in PISA] 10–20*; Frønes, T.S., Jenssen, F., Eds.; Universitetsforlaget: Oslo, Norway, 2020.
17. SSB. Elever Med Spesialundervisning [Students with Special Needs Education]. Available online: [https://www.udir.no/tall-og-forskning/publikasjoner/utdanningspeilet/utdanningspeilet-2022/grunnskolen/spesialundervisning-i-grunnskolen/](https://www.udir.no/tall-og-forskning/publikasjoner/utdanningsspeilet/utdanningspeilet-2022/grunnskolen/spesialundervisning-i-grunnskolen/) (accessed on 20 March 2022).
18. SSB. Elever Med Spesialundervisning [Students with Special Needs Education]. 08624: Elevar Med Spesialundervisning, Etter Årstrinn, Statistikkvariabel, år og Region. Available online: <https://www.ssb.no/statbank/table/08624/> (accessed on 20 April 2022).
19. Nordahl, T.; Persson, B.; Dyssegaard, C.B.; Hennestad, B.W.; Wang, M.V.; Martinsen, J.; Johnsen, T. *Inkluderende Fellesskap for Barn og Unge [Inclusion for All Children and Youth]*; Fagbokforlaget: Bergen, Norway, 2018.
20. Tveit, A.D.; Cameron, D.L. Spesialpedagogisk plass i skole og annet samfunnsnivå [the place of special needs education in the school and the society]. In *Spesialpedagogikk: Fagidentitet og Samfunnsnytte*; Hausstätter, R.S., Reindal, S.M., Eds.; Cappelen Damm Akademisk: Oslo, Norway, 2016; pp. 99–110.
21. Avramidis, E.; Norwich, B. Teachers' attitudes towards integration/inclusion: A review of the literature. *Eur. J. Spec. Needs Educ.* **2002**, *17*, 129–147. [[CrossRef](#)]
22. Frostad, P.; Pijl, S.J. Does being friendly help in making friends? The relation between the social position and social skills of pupils with special needs in mainstream education. *Eur. J. Spec. Needs Educ.* **2007**, *22*, 15–30. [[CrossRef](#)]
23. Roland, E. *Mobbingens Psykologi Hva kan Skolen Gjøre? The Psychology of Bullying. What Can the School Do?* Universitetsforlaget: Oslo, Norway, 2014.
24. Pianta, R.C. *Enhancing Relationships between Children and Teachers*; American Psychological Association: Washington, DC, USA, 1999.
25. Andresen, F.; Torvik, E.; Lagestad, P. Students' experience of being seen by their physical education teachers and associated factors. *Front. Sports Act. Living* **2023**, *5*, 1101072. [[CrossRef](#)]
26. Dyson, L. Teachers' Perspectives and Experiences of the Contexts of Social Inclusion within Elementary School Classrooms in Canada and China. *J. Int. Assoc. Spec. Educ.* **2014**, *15*, 108–117.
27. Abed, M.G.; Shackelford, T. Saudi public primary school teachers' perspectives on inclusive education. *Educ. Stud.* **2021**, *49*, 614–627. [[CrossRef](#)]
28. Weiss, S.; Lerche, T.; Muckenthaler, M.; Heimlich, U.; Kiel, E. Role of Teachers' Personal Characteristics, Joint Professional Work, and School-Related Parameters. *Educ. Res. Eval.* **2019**, *25*, 145–162. [[CrossRef](#)]
29. Moriña, A.; Orozco, I. Understanding inclusive pedagogy in primary education: Teachers' perspectives. *Educ. Stud.* **2021**, *47*, 137–154. [[CrossRef](#)]
30. Høybråten, H.M.S.; Buli-Holmberg, J.; Morken, I. Succeeding in inclusive practices in school in Norway—A qualitative study from a teacher perspective. *Eur. J. Spec. Needs Educ.* **2021**, *37*, 1009–1022. [[CrossRef](#)]
31. At-Turki, J.; ALdmour, H.A.; Maitah, K.A.R.A.; ALSarayreh, M.N. Requirements for the Success of the Integration Program of Disabled Students in the Regular Schools from the Perspective of the Teachers of the Learning Resources Rooms. *Int. Educ. Stud.* **2012**, *5*, 108–129.
32. Rodden, B.; Prendeville, P.; Burke, S.; Kinsella, W. Framing secondary teachers' perspectives on the inclusion of students with autism spectrum disorder using critical discourse analysis. *Camb. J. Educ.* **2019**, *49*, 235–253. [[CrossRef](#)]
33. Rukavina, P.; Doolittle, S.; Li, W.; Beale-Tawfeeq, A.; Manson, M. Teachers' Perspectives on Creating an Inclusive Climate in Middle School Physical Education for Overweight Students. *J. Sch. Health* **2019**, *89*, 476–484. [[CrossRef](#)]
34. Sucharita, V.; Sujatha, K. Engaging with Social Inclusion through RTE: A Case Study of Two Private Schools in Delhi, India. *Int. J. Incl. Educ.* **2019**, *23*, 313–327. [[CrossRef](#)]
35. Urban, D.J.J. Democratic Citizenship Education and Inclusion: Preparing Preservice Teachers for Inclusive Social Studies. *J. Am. Acad. Spec. Educ. Prof.* **2018**, *162*, 190.
36. Yuknis, C. Attitudes of Preservice Teachers Toward Inclusion for Students Who Are Deaf. *Deaf. Educ. Int.* **2015**, *17*, 183–193. [[CrossRef](#)]
37. Ministry of Education. Stortingsmelding 11. 2008. Available online: <https://www.regjeringen.no/contentassets/dce0159e067d445aacc82c55e364ce83/no/pdfs/stm200820090011000dddpdfs.pdf> (accessed on 20 April 2022).
38. Reilly, J.J. When does it all go wrong? Longitudinal studies of changes in moderate-to-vigorous-intensity physical activity across childhood and adolescence. *J. Exerc. Sci. Fit.* **2016**, *14*, 1–6. [[CrossRef](#)] [[PubMed](#)]

39. Ministry of Education. Motivasjon—Mestring—Muligheter—Ungdomstrinnet (Meld. St. 22 (2010–2011)). 2011. Available online: <https://www.regjeringen.no/no/dokumenter/meld-st-22-2010{-}{-}2011/id641251/?q=spillbasert%20\T1\tering&ch=8> (accessed on 20 April 2022).
40. Dyslexia Norway. Dysleksivennlig Skole—10 Kriter. [Dysleci Friendly Schools—10 Criterias]. 2021. Available online: <https://dysleksinorge.no/dysleksivennlig-skole/dysleksivennlig-skole-kriterier/> (accessed on 28 June 2021).
41. Holden, R.B. Face validity. In *The Corsine Encyclopedia of Psychology*, 4th ed.; Weiner, I.B., Craighead, W.E., Eds.; Wiley: Hoboken, NJ, USA, 2010; pp. 637–638.
42. Østerås, N.; Gulbrandsen, P.; Garratt, A.; Benth, J.S.; Dahl, F.A.; Natvig, B.; Brage, S. A randomised comparison of a four- and a five-point scale version of the Norwegian Function Assessment Scale. *Health Qual. Life Outcomes* **2008**, *6*, 14. [CrossRef] [PubMed]
43. O'Donoghue, P. *Statistics for Sport and Exercise Studies: An Introduction*; Routledge: London, UK, 2012.

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