

Strategies to Succeed with Inclusion in a Diverse Learning Environment

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Abstract

Even though inclusion is a strong principle in the Norwegian educational system, there are challenges when it comes to creating inclusive learning environments. This study investigates the following: a) What challenges are there in the learning environment in primary school from a teacher's perspective, and b) what strategies do teachers employ to address these challenges and create an inclusive learning environment? The framework for data collection in this study has been a project called SAMM: *A Systematic approach to work with mastery, participation, and motivation*, where a method based on health promotion theory and self-determination theory has been developed and applied. Ten teachers were interviewed, after applying a five-step method where the students identify what is important for them, success factors and obstacles, and make plans regarding what to focus on and what to do. The teachers interviewed applied the five-step method with focus on life mastery, subjects, or the social environment. A summative, traditional content analysis has been conducted, based on categories identified in a preliminary study, which investigates challenges and solutions in a diverse learning environment from a student's perspective. The three main categories in the analysis were relational challenges, structural challenges, and individual challenges. The study concludes that it is important to work systematically and over time to create an inclusive learning environment. In line with different studies that have investigated interventions for children with behavioural problems in middle school, it is also recommended to facilitate self-regulation and choice-making to create an inclusive learning environment.

Keywords: diversity, inclusion, participation, self-regulation, primary school, learning environment

Several formal guidelines within the Norwegian educational system ensure inclusion and the establishment of a safe learning environment in school (Report to the Storting 6, 2019-2020; The Education Act, 1998, § 9a). However, despite the good intentions of politicians (Tveitnes, 2022), schools may not necessarily implement inclusive practices. Inclusion was previously narrowly defined as the inclusion of marginalized students with special needs in regular schools (UNESCO, 1994), where all students belonged to the same community. More recent definitions take a broader perspective, describing inclusion as a process that addresses various needs that all students have. This includes ensuring student participation, and allowing students to influence the learning environment and the organization of teaching (Report to the Storting 6, 2019-2020; UNESCO, 2005). Another aspect of inclusion, as emphasized by Haug (2014), a Norwegian professor in educational research, is that students must benefit from the education, either through social learning or subject-based learning, for education to be considered inclusive. As a result, to ensure inclusion in schools, teachers must adapt to the students' preferred learning styles rather than expecting students to adapt to their own preferred teaching styles. This becomes a challenge in regular schools where classes often comprise students with diverse needs and preferences.

The current study investigates how teachers who have implemented an approach to promote student participation have addressed various challenges in the learning environment to facilitate inclusion. The approach encompasses a five-step method (Horverak, 2023), developed in a project centered on mastery, participation, and motivation. In this method, students are guided to 1) identify what is important for them, 2) recognize their strengths and areas of satisfaction and 3) identify potential obstacles hindering them from achieving their goals, 4) plan what to focus on, and 5) determine specific actions they will take to effect change. This method has been applied with focus on life mastery, subjects, and the learning environment. Using this five-step method as a framework, teachers have identified the obstacles faced by their students and experimented with various strategies to address these challenges. Both challenges and strategies are investigated in the analysis in the current study. The five-step method is grounded in self-determination theory (Ryan & Deci, 2017), which underscores autonomy, competence, and relatedness as essential needs to foster intrinsic motivation. Additionally, it draws from health promotion theory (Antonovsky, 2012), which asserts that to experience a sense of coherence, an individual must comprehend situations, feel capable of handling them, and perceive their actions as meaningful. When applied to subjects, the method aligns with self-regulation theory, wherein students are actively engaged in identifying problems, examining solutions, and planning and evaluating their own learning process (Boekaerts & Niemivirta, 2005).

The research question in this study is two-fold: a) What challenges are there in the learning environment in primary school from a teacher's perspective, and b) what strategies do teachers employ to address these challenges and create an inclusive learning environment? The study's sample is limited to teachers who have participated in the aforementioned project. This selection was made with the aim of providing the most effective answers to the research questions, by having informants who have focused on identifying student obstacles and tried out different strategies as potential solutions. The study's primary objective is not to generalize

or to find a representative sample but to discover exemplary strategies that can be applied to address challenges when working with creating an inclusive learning environment, which can be of value to other practitioners.

In the following, the theory of self-determination will be explored in greater detail, as along with research conducted in an educational context that is grounded in this theory. Since this article primarily focuses on student diversity, there will also be a summary of research on students with behavioural difficulties, with elaborations on specific programs that have provided support to such students. Subsequently, the research method will be outlined, including details about the sample, data collection and analytical approach. The results will be presented, comprising a first section on challenges the teachers have identified, and a second section on strategies they have applied to address these challenges. In the discussion section, the findings will be related to theory of inclusion, self-determination theory and the review of research on programmes designed for children with behavioural problems. In addition, the validity of the findings is discussed. Finally, the findings of the study are summarized, and recommendations for future research will be provided.

Literature Review

In self-determination theory, there is a division between extrinsic motivation, facilitated through reward systems, and intrinsic motivation, facilitated through meeting the needs of competence, autonomy, and relatedness (Deci & Ryan, 2000). The competence need is closely related to mastery and having an expectation to master situations, or self-efficacy, as Bandura (1997) describes it. Having autonomy in a learning context means being in control of one's own learning process, setting goals, making plans, carrying plans out and adjusting them as needed (Skaalvik & Skaalvik, 2018). Relatedness, the third basic need, concerns the need to belong to a community. Research has shown that intrinsic motivation, characterized by an interest to learn, is crucial for both academic performance and well-being in school (Deci & Ryan, 2000).

In their review of research on self-determination theory in an educational context, Ryan and Deci (2020) report on several studies that support a positive relation between autonomy-based motivation in classrooms and academic achievement in various subjects (Grolnick et al., 1991; Grolnick & Ryan, 1987; Guay et al., 2010; Howard et al., 2017; Katz et al., 2014). They also refer to studies that have demonstrated correlations between autonomy-supportive teachers and intrinsic motivation, perceived competence, and self-esteem (Deci et al., 1981; Ryan & Grolnick, 1986). Autonomy-support is a central element in several interventions based on self-determination theory (Ryan & Deci, 2020). This means that teachers facilitate students to take ownership of their own learning process and provide different possibilities are provided through choices of tasks and procedures that may engage students. By making choices, students experience autonomy and intrinsic motivation (Bao & Lam, 2008; Reeve et al., 2003, Patall et al., 2008). Studies have also demonstrated correlations between autonomy-support in combination with clear structures concerning expectations, goals, and directions on the one hand, and better use of self-regulation strategies and lower anxiety on the other (Hardré &

Reeve, 2003; Vansteenkiste et al., 2012). Autonomy-support and clear structure are also combined in the five-step method applied in the current study, serving as a framework for teachers and students to identify obstacles and find solutions together (Horverak, 2023).

Learner Diversity and Behavioural Problems

As highlighted by the American child psychologist Greene (2011), many children with social, emotional, and behavioural problems are often misunderstood, and addressing challenging behaviour incorrectly can perpetuate the issue. Greene challenges the behaviouristic approach to behavioural problems, which may involve detention and expulsion, and emphasizes that children are not robots that may be programmed and controlled. He asserts that behavioural problems arise when expectations to the child are higher than the child's capacity to respond in an acceptable way. Children are diverse, and when different children are subjected to similar expectations, it can lead to challenging behaviour, particularly in children who do not have age-adequately developed mindsets, or different disabilities.

Many students in schools exhibit behavioural problems, such as ADHD (attention deficit hyperactivity disorder) (Olsen & Mikkelsen, 2015). These issues often result in disruption in the classroom, which teachers may not feel confident in managing (Overland, 2007). Signs of ADHD include attention difficulties, hyperactivity, impulsiveness, and concentration challenges. (Olsen & Mikkelsen, 2015). Children with ADHD are easily distracted and struggle with self-regulation (Ogden, 2022). Various approaches are used to handle and support students with behavioural problems to improve their adaptation to everyday school life. A recent literature review focused on middle school students, aged 11 to 15 years, has identified numerous programmes that have had an effect on this student group (Alperin et al., 2021). These programmes generally include some type of self-regulation practice, which aligns with the five-step approach applied in the present study (Horverak, 2023).

Programmes for Students with Behavioural Problems

Programmes that include giving students with behavioural problems choices in the learning situation aim at improving working ability and reducing disturbing behaviour in class. Kern et al.'s study (2002) on the programme *Choice-making* included six students with different behavioural disorders, that were exposed to an intervention allowing them to make choices concerning what to work with and how to do this. For example, they could choose whether to work individually on a computer or in collaboration with peers, or they could choose the topic or materials to be used in class. The teacher planned different options based on the students' interests. Engagement and disruptive behaviour were measured through observation, and the intervention period included phases of a few days, alternating between baseline phases of teacher-controlled teaching and intervention phases with choices. The results showed an increase in engagement and a decrease in disruptive behaviour in both intervention phases. In the baseline periods, there was a decrease in engagement and an increase in disruptive behaviour. The study generally shows a positive effect of giving students with behavioural problems choices, which means more autonomy, in the learning situation.

The Challenging Horizon Programme is another programme that includes interventions on self-regulation, in addition to practising social skills (Evans et al., 2007). The intervention covers academic skills such as note-taking and using organizational strategies like monitoring their own learning activities by taking notes on exercises performed, as well as social skills such as problem solving, practice of prosocial behaviour, mastering anger, and conversational skills. The study involved a three-year-long intervention with 42 students in test-groups and 37 in control-groups. The results based on evaluations from teachers and parents showed some improvements in social and academic functioning over time in the intervention group. The findings were not significant, but some suggested a cumulative increase over time that might result in long-term effects on attention problems, hyperactivity, and social functioning (Evans et al., 2007).

A programme called *A Classwide Peer-assisted Self-management Program* (Mitchem et al., 2001) was implemented in three regular seventh-grade classes, with ten students facing different behavioural challenges and learning difficulties receiving an intervention. The classes were educated on what self-control means, and they roleplayed class rules. The class rules were displayed on the classroom wall, and every student in class was assigned a partner. The results of the study showed that the time all the students in the classes concentrated on tasks increased, including the students with specific challenges. During the intervention period, they were focused on tasks 80 % of the time, which was an increase from 35 % at the baseline. Overall, there was an improvement in the classes regarding behaviour and social skills, and this positive change persisted as the programme gradually ended.

Another study with a focus on self-regulation describes an intervention called *I Control* (Smith et al., 2017). This programme includes knowledge presented by the teacher and an IT-based mind-training lab. It consists of four units that may influence cognition and emotions, ultimately strengthening self-regulation. Unit one concerns working memory, and the students are presented with different tasks to solve. Unit two focuses on setting goals, and the students learn to set value-based goals and find realistic strategies to reach them. The third unit focuses on regulation of emotions, and the students learn to identify emotions and find effective strategies to regulate unwanted emotions. The fourth unit concerns problem-solving, and the students are trained in skills they need to solve everyday problems. The study involved 167 students with behavioural problems, from 17 classes, whereof nine classes were intervention groups and eight were control groups. Based on teachers' reports, the findings showed a positive effect on the students' executive functions (Smith et al., 2017), which involve the brain's performing functions such as starting on a task, generating ideas and problem-solving strategies (Olsen & Mikkelsen, 2015). In addition, all the students reported improved emotional control, meaning they could better moderate inappropriate emotional outbursts (Smith et al., 2017), a result corroborated by the teachers' reports. Regarding behavioural problems, the results indicated a tendency that students with the lowest initial scores, meaning the students who needed the intervention the most, exhibited the most significant positive development in behaviour.

A programme called *Coping Power Universal* (Muratori et al., 2020) that has been applied to reduce emotional and behavioural problems, as well as promoting prosocial behaviour, focused on developing mastery strategies. The programme includes six main modules, where the first module concerns reaching short-term and long-term goals, the second is about developing emotional awareness, the third focuses on emotional regulation, the fourth involves taking different perspectives, the fifth is about problem solving and the sixth includes collaborating with peers. The sample in this study included 839 students, whereof 29 of them had some form of intellectual challenge or sensory issues. The findings showed that the programme provided the students with useful strategies, reduced mental problems, and increased prosocial behaviour.

The different programmes described all include various strategies related to self-regulation, problem-solving, goal setting and raising consciousness. These elements are also included in the five-step approach, which serves as the framework for data collection in the current study and has been applied as a universal measure in ordinary classes and schools where there is student diversity. The application of universal self-regulation strategies in classrooms has been questioned, as students who benefit most from these types of strategies, often are the students who perform well academically. Therefore, these universal approaches may inadvertently widen the gap between students (Madsen, 2020). Nevertheless, the studies described above demonstrate that also students struggling with self-regulation, or with behavioural problems, can benefit from interventions that include self-regulation practices and social skills training.

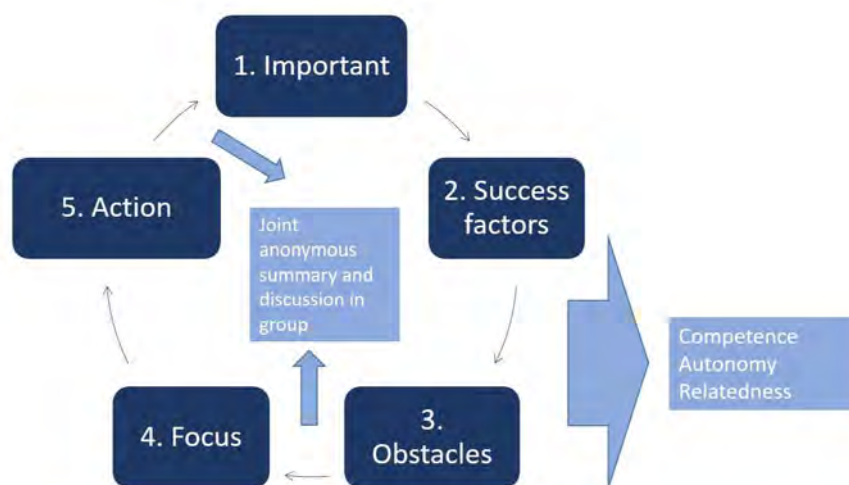
Method

This study applies a qualitative research design to investigate teachers' understanding of challenges in the learning environment and strategies they employ to address these challenges. The study may be defined as a multiple-case study (Bryman, 2012, p. 77), as the data material comprises interviews from 10 informants. The data was collected during the spring of 2021, in relation to reporting on a project, where a five-step method for mastery, participation and motivation was implemented. This method will be presented in greater detail before describing the procedure of data collection, the sample, and the analysis approach.

The Five-Step Method

The five-step method places its emphasis on aiding students in taking control of their own lives and learning processes by encouraging them to engage in reflection, both as a class and individually, through five key questions. The first three questions pertain to situational assessment, involving the identification of values, success factors and obstacles. Students are asked to reflect on 1) what is important for them to be content in school, 2) what skills do they already master, and with what are they content, and 3) whether there are any hindrances obstructing them from attaining their goals and desires (figure 1, previously published in Horverak & Aanensen, 2019, Horverak, 2020, Horverak & Langeland, 2022)?

Figure 1
The Five-Step Method



The teacher initiates a class discussion on these three questions, and this is followed up by asking the students to write, or draw for the younger ones, answers to the questions. Depending on grade, the answers are written anonymously, as one of the points here is that the students write to themselves and not to the teacher. The teacher collects the student notes and compiles a summary of anonymous reflections for the next session, which is presented to the class. Then the teacher asks the students 4) what they want to focus on, meaning what to work with improving, or what obstacles to deal with, based on the answers to the first three questions. Following this, the students discuss strategies that could be applied, or 5) what action to take. Some of the strategies concern what they can do themselves, other strategies require facilitation from the teacher. When applying the method to subjects, the teacher asks the students to reflect on 1) what is important in the subject, 2) what they have already mastered and 3) what they find challenging. Subsequently, the students make plans on 4) what they intend to focus on and 5) how they plan to work on it. The third variant of the method is adjusted to working on the learning environment, and is implemented through the student councils, meaning that student representatives apply the method in their classes with a collective focus and receive support from their teachers and the adult responsible for the student council.

Data Collection

A semi-structured interview guide was utilised, with some pre-defined questions and topics, that were adjusted in the interview process (Bryman, 2012, p. 471). The interview guide comprised three sections. The first section consisted of questions on the teachers' background concerning working experience. The second section contained questions concerning the learning environment, and challenges and strategies they employed to address the challenges. The third section included questions concerning the implementation of the five-step method, how they had applied it, what they focused on specifically and whether there was a change in the learning environment. Notes were taken during the interviews, and all data collected was anonymous.

Sample

Purposive sampling was chosen to ensure that the participants had diverse experience relevant to the research question (Bryman, 2012, p. 418). This resulted in 10 informants, whereof two were responsible for the student councils in their schools and had applied the five-step method through the student councils with a focus on the learning environment. The teachers had different backgrounds and worked on different levels in primary school (table 1).

Table 1
Sample

School	Teacher	Years working experience	Years in the current school	Grades taught in general	Grade taught at time of interview
School 1	1	8	7	5.-7. grade	6. grade
School 1	2	22	20	1.-4. grade	1. grade
School 1	3	3	3	1.-4. grade	3. grade
School 1	4	35	23	Student council	Student council
School 2	5	18	18	Student council	Student council
School 3	6	30	21	2.-7. grade	5. grade
School 3	7	15	15	3.-7. grade	3.-4. grade
School 3	8	6	4	5.-7. grade	6.-7. grade
School 4	9	23	15	1.-4. grade	1.-2. grade
School 5	10	4	4	1.-10. grade	5. grade

Analysis

A summative, traditional content analysis (Hsieh & Shannon, 2005) was applied to identify the challenges the teachers identified in the learning environment. A preliminary analysis of student data related to the same project resulted in the three main categories relational challenges, structural challenges and individual challenges, and these categories provided a framework for analysis in the current study. The codes that emerged during the analysis were categorised according to these main categories. The codes closely represented the content, resulting in a substantial number of codes. Therefore, these codes were further organized into subcategories within each main category. The number of occurrences of different challenges is reported to give an indication of how many informants mention the different challenges. The strategies employed by the teachers to address these challenges were analysed using a content analysis, without counting occurrences, as the purpose here was to show different strategies that may be applied to establish an inclusive learning environment.

Findings

The first findings present the challenges the teachers experienced in the learning environment. There are 20 occurrences of relational challenges, 13 occurrences of structural challenges and 39 occurrences of individual challenges (Table 2).

Table 2*Challenges in the Learning Environment from a Teacher's Perspective (n = 10)*

Main category	Subcategory	Code	Occurrences
Relational challenges	Exclusion	Bullying	2
		Keeping out	4
		Rude comments	5
	Conflict	Disagreement	2
		Dispute over friendships	1
		Drama	1
	Aggressive behaviour	Throwing things	2
	Performance pressure	Competition	1
	Relations with adults	Insecurity	1
		Unfairness	1
<i>Total</i>			<i>20</i>
Structural challenges	Rule breaking	Noise	8
		Not raising hand	1
		Mess	1
	Learning tools	Digitalization	3
		<i>Total</i>	<i>13</i>
Individual challenges	Learning difficulties	Challenge in the subject	7
		Dyslexia	1
		Challenge to self-regulate	3
		Lack of mastery	2
		Lack of concentration	1
		Difficulties finding words	1
	Socio-emotional challenges	Pressure from expectations	2
		Lack of motivation	3
		Passivity	1
		Impatience	3
		Restless boys	1
		Inappropriate behaviour	2
		Behavioural difficulties	3
		Emotional difficulties	2
		Grief	1
		Lack of sleep	2
		The invisible children	1
		School anxiety	1
		Low self-esteem	1
		<i>Total</i>	<i>39</i>

The *relational challenges* are exclusion, conflicts, aggressive behaviour, performance pressure and relations with adults. Exclusion includes instances of bullying (2), keeping others out (4) and rude comments (5), and conflicts include disagreement (2), dispute over friendships (1) and drama (1). These categories concern students' interaction with one another. One informant said "Mobiles and social media is one of the bigger problems now. Little things, keeping out, when it is a small place and only one group, one feels left outside". Another informant mentioned the rude language: "There are probably quite a few that feel they are being teased by the older students, and the do not like the rude language". Aggressive behaviour involves the throwing of objects (2), such as chairs and stones. One informant also mentioned that the

students feel insecure in relation to people they do not know, and another mentioned that the students feel that it is unfair when they are treated differently.

The *structural challenges* involve breaking rules and challenges with learning tools. Breaking rules includes noise (8), students who speak without raising hands (1) and mess in the classroom (1). One informant reflected on the fact that the degree of noise varied depending on the teacher: “I think it is challenging when others have the class, and not me, especially for the more dutiful students. They struggle when it is noisy”. The challenge with learning tools concern digitalisation (3), that there has been a fast increase in use and availability of digital tools, and that it is difficult to find a balance.

The *individual challenges* comprise different learning difficulties and socio-emotional challenges. Regarding different learning difficulties, the informants mentioned general challenges in subjects (7), such as writing and mathematics, dyslexia (1), difficulties with self-regulation (3), lack of mastery (2), lack of concentration (1) and difficulties with finding the right words (1). Lack of mastery is also related to noise in classes by one informant: “when the students do not master, this results in more noise”. Socio-emotional challenges include pressure from expectations (2), as commented by an informant: “Some feel there is so much they are expected to deal with, this is something of the most challenging [...] the requirements are felt as too much compared with what they can manage”. Lack of motivation (3) is another challenge, as one of the informants said: “The student surveys show that the students can be more active, or we want them to be more motivated and that they take more responsibility for their own learning”. The informants also mentioned passivity (1) and impatience (3), which is related to difficulties with working for longer periods with exercises. Other informants mentioned restless boys (1) and inappropriate behaviour (2), such as destroying things outside or making some serious and strange comments. In addition, specific behavioural difficulties, and diagnoses (3) are mentioned. Emotional challenges (2) mentioned are that some students are tough on the outside, but vulnerable on the inside, as one informant describes: “to talk about feelings is very difficult, and he is rather closed and concerned with showing a tough outside, at the same time as he is fragile and easily become upset”. In addition, grief (2) is mentioned, lack of sleep (2), the “invisible” children (2), who are quiet and easily forgotten, school anxiety (1) and low self-esteem (1).

The Teachers’ Strategies to Meet the Challenges

The strategies described by the teachers are sorted into the main categories: creating structure, providing acknowledgement, raising consciousness, facilitating activities, ensuring student participation and applying strategies concerning the adult role (figure 2). More of the strategies are applied to deal with different challenges.

Figure 2
The Teachers' Strategies



Concerning structural challenges associated with rule breaking, the teachers created *structure* by setting boundaries and routines for the students, as well as applying reward systems. Examples of rewards were that the students could eat cake, watch a movie of their own choice, or do other activities they enjoyed. In terms of structure and routines, the informants mentioned for example that they made plans for the sessions, had the students stand in a line in the morning, and started with silent reading and a clear “good morning”.

Another strategy the teachers applied was giving *acknowledgement* to the students. One informant described it as: “Many conversations, little ‘I see you’, stay in touch and follow up”. To address the challenge of low self-esteem, a strategy was to focus on the positive and what they do well. Another informant said that she made a visual tree in the classroom where they put notes on describing positive occurrences, to reinforce positive behaviour in class – “If anyone has heard or experienced something nice, they receive a leaf and put it on the tree”. This strategy was applied in relation to question two in the SAMM-method, to identify success factors.

Several of the informants mentioned *consciousness-raising* as a strategy and said that they talked with the students to handle different challenges. For example, they talked about behaviour and what is important for everyone to be okay, as well as addressing grief and how to comfort each other. Conversations with consciousness-raising were often included when applying the five-step method systematically and over time. When asked about whether the systematic work with conversations influenced the class environment, one of the informants

said: “Yes, it is affected positively [...] it is more open, so the students dare to speak about problems and thoughts that we can work with as a group, not just as individuals. It strengthens the sense of community”. For the students to remember to include each other, which several students chose as a focus area when working with the five-step method, some teachers put posters in the classroom. There was also a campaign to keep the school tidy.

Facilitating *activities* was mentioned by several teachers, more specifically playing different games, or having outdoor activities. For example, one teacher with a noisy class, and a couple of students with behavioural problems, moved the class outside and incorporated activities and games that included running around in the school yard in combination with learning concepts and fact, or they were asked to do an activity, such as laughing for 30 seconds or give someone a compliment, between tasks they solved.

Another strategy mentioned is *student participation*, for example engaging student representatives in the student council to work with finding strategies for addressing challenges in the learning environment. In two of the schools, girls’ groups were established, where they applied the five-step method to make the girls become more conscious about including each other. This was combined with activities such as making food and playing games. In addition, the informants mentioned offering choices, both in terms of learning styles and exercises. One informant said that the students were allowed to choose working position, either sitting or lying, or working outside the classroom. Choosing learning tool, such as computer or paper, is another option mentioned by others. Another informant said that the students were to choose what to work with based on what they had written as focus area in their notebooks used with the five-step method. The students were then given different exercises to choose from based on what they had written that they wanted to work with. As one teacher noted: “It is important that the work they have done is made visible, it takes time, so when they have done this job, they deserve to get SAMM-practice on the schedule, and that I have prepared for this”. Another informant pointed out that having different options makes the students motivated.

The final strategy mentioned by the informants concerns the *adults’ role*. They emphasize the importance of being clear and authoritative adults. In addition, they mention collaboration with colleagues, including teachers and the school nurse, and working together with parents to address different challenges. The teacher who mentioned school anxiety as a problem said that this was solved by talking to the parents. They made an agreement that the girl was going to walk to school with a friend, and that the teacher would meet them outside to greet them in the morning. This approach effectively resolved the situation.

Discussion

This study investigates what challenges the teachers in primary school experience in the learning environment, and what strategies they employ to address these challenges and create an inclusive learning environment. The findings of the study show that there are different relational, structural and individual challenges, and that the teachers worked systematically and consistently to raise consciousness and find solutions to foster an inclusive learning

environment. The importance of systematic, long-term efforts is also highlighted in the studies described from the meta-analysis of interventions related to behavioural problems (Alperin et al., 2021; Evans et al., 2007; Kern et al., 2002; Muratori et al., 2020; Smith et al., 2017).

In this study, the five-step method served as the framework for systematic work with the learning environment. This approach offers professional autonomy for teachers to adapt different strategies to the specific context in collaboration with the student group. The list of strategies employed by the teachers demonstrates the diverse approaches applied, and strategies are adjusted to the different students' needs. Student participation is also emphasised, which is a fundamental element in creating an inclusive learning environment (Haug, 2014; Report to the Storting 6, 2019-2020).

Self-Regulation and Choice-Making

Approaches that promote self-regulation and choice-making for students with behavioural problems, as described in the five-step method (Horverak, 2023) and other programmes presented in the meta-analysis mentioned above (Alperin et al., 2021), may contrast with behaviouristic approaches involving rewards and punishment (Vogt, 2016), which are often found in educational contexts. Reward systems are based on the premise that behaviour can be influenced through extrinsic means (Vogt, 2016). This aligns with a deterministic view, suggesting that humans may be modified by their environment (Johannessen et al., 2010). Related to self-determination theory (Ryan & Deci, 2017), reward systems may lead to extrinsic motivation, where students conform to the teacher's expectations to earn a reward, rather than because they genuinely want to. In this case, the reward itself motivates, not the desired behavioural change. This is not a very robust type of motivation, as the change may fade when the reward is removed. In contrast, by granting students choices, they are given autonomy-support, which is associated with intrinsic motivation (Bao & Lam, 2008; Reeve et al., 2003; Patall et al., 2008), good results in subjects (Grolnick et al., 1991; Grolnick & Ryan, 1987; Guay et al., 2010; Howard et al., 2017; Katz et al., 2014) and positive self-esteem (Deci et al., 1981; Ryan & Grolnick, 1986).

Often, choices are given students as a reward, as described by the informants, and this is not an approach that promotes self-regulation, but rather the opposite. Providing choices as a reward essentially deprives students of their autonomy, as the choices are conditioned by a certain behaviour. This is a control strategy employed by the teacher. This is turned around in the choice-making study referred to above (Kern et al., 2002), which shows that students with behavioural problems improved their concentration during intervention periods when offered choices. In the application of the SAMM-method, as described by the informants, the students are also given choices in the learning process, based on what they have written that they want to focus on. Students are given choices concerning what to work on, and how to do it, rather than being manipulated through rewards for following the teacher's instructions. Providing choices in the learning process also promotes student participation, a key element in the renewed curriculum for the Norwegian schools (Ministry of Education and Research, 2017).

The Authoritative Teacher

Other strategies emphasized by the teachers include establishing clear structures and being authoritative adults, at the same time as giving acknowledgement to the individual students. This aligns with the ideal described in theories on the authoritative teacher (Roland, 2021), which underscore the importance of combining clarity in enforcing rules and regulations with building relations. Research conducted in a Norwegian context based on this theory has shown that achieving this balance may be challenging. A study revealed that students who reported increase in teacher surveillance also reported decrease in emotional support (Ertesvåg, 2009). Finding the right balance between maintaining structure and adhering to regulations on the one hand and acknowledging and adjusting to each individual's needs and building relations on the other hand will probably always be a challenge when working with creating an inclusive learning environment in a classroom with student diversity.

Validity

There are different challenges concerning the validity of this study, as it involves a limited sample selected through purposive sampling related to a project. The findings reported in this study may not be generalizable to other contexts. In addition, the analysis could have been carried out differently, and there might be overlaps between the different factors. For example, noise often results from individual challenges, still, this is coded under the category of structural challenges. Despite these considerations, the study can still provide valuable insights for relevant stakeholders, such as teachers, school leaders and politicians, concerning how to deal with challenges in school and establish an inclusive learning environment. The study's objective is not to find absolute truths, but rather, as is often the case with educational research, to focus on utility (Bachman, 2009).

Conclusion

Implementing a method in the classroom, such as the five-step method described here (Horverak, 2023), enables teachers and students to identify and address challenges in collaboration. The main challenges the teachers identified in the learning environment were *relational challenges* such as exclusion, conflict, aggressive behaviour, performance pressure and relations with adults, *structural challenges* such as rule-breaking and issues with learning tools and *individual challenges*, sorted into the subcategories learning difficulties and socio-emotional challenges. To handle these challenges, teachers applied strategies as creating *structure*, giving *acknowledgement*, raising *consciousness*, facilitating for *activities*, making *students participate* in decision-making and being conscious about the *adults' role* as authoritative, as well as collaborating with colleagues and parents. These strategies may all contribute to an inclusive learning environment, which means that the students are engaged and participate in decision-making, they are part of a community, and they profit socially and in subjects (Haug, 2014). There is a need for further research on the potential of this type of methodology, which aims at being sensitive and respectful of student diversity through emphasizing student participation, and where teachers collaborate with students in diverse

classrooms to find solutions to different challenges that occur and assess how these strategies work for the individual students.

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