Meeting the Needs of Low-Achieving Students in Sweden: An Interview Study

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In 1994, a major curriculum reform was implemented in Sweden. A norm-referenced grading system was replaced by national goals and performance standards. The intention was that students not reaching the minimum standards would be identified and support provided. This optimistic vision has not been entirely realized. In 2017, 25.9% of all Swedish students graduated from compulsory school without receiving a passing grade in all subjects. To understand how students at risk of not receiving passing grades are identified and provided with support, interviews have been conducted at 10 Swedish schools. Findings suggest that the schools in the sample are successful in identifying students in need of support, but not necessarily in identifying the specific needs of individual students. The identification may also differ between students with learning difficulties and students with behavioral problems. Furthermore, the findings suggest that schools and teachers in the sample have different approaches when providing support to low-achieving students. This support can be categorized as supporting and relational, simplifying, or general and practical. These approaches, in turn, may provide different opportunities for students' engagement with schoolwork and eventually their performance. By discussing the findings in relation to self-determination theory and self-efficacy, the combination of challenging tasks and scaffolding support, as well as providing structure in combination with caring relationships, are identified as important facilitators of increased student motivation and effort.

Keywords: grading, low-achieving students, special education, support, self-determination theory

INTRODUCTION

In 1994, national goals and performance standards were implemented in Sweden as part of a curriculum reform. This reform included the introduction of a passing grade; a lowest level of performance in each subject that all students were supposed to attain. The proposed merits of such national standards have been summarized by Hyltegren (2014) as the possibility to (a) formulate demands of quality, (b) identify shortcomings, and (c) provide support. In the best of worlds, these merits would apply not only at a national level. They would apply to all levels in the school system, such as local authorities, schools, and classrooms. This means that students not reaching the minimum standards in one (or several) subject/s would be identified and support would be provided. In principle, all students could be awarded a passing grade when leaving compulsory school. However, this optimistic vision has not been entirely realized. According to[1]

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[1] https://www.skolverket.se/skolutveckling/statistik

official statistics, in 2017 "only" 74.1% of all Swedish students left school with a passing grade in all subjects. Although according to the intentions of the system, the remaining 27,792 students should have been identified and provided with support, so that they could be awarded a passing grade. Starting from this observation, the current study aims to understand how students at risk of not receiving passing grades are identified and provided with support.

BACKGROUND

According to Swedish legislation (Swedish Education Act [2010:800], 2010 3rd chapter, 5a§), students are entitled to support when identified as being at risk of not receiving a passing grade in at least one subject. This support can be of different magnitude, and a distinction is made between supplemental support (or "need-supported teaching") and special education support. Supplemental support is supposed to be less extensive and possible to implement within the frames of regular instruction (Swedish National Agency for Education, 2014). No formal decision has to be made to implement this category of support, but the support is supposed to be documented in the student's "Individual Development Plan." Paradoxically, however, schools are no longer required to hold Individual Development Plans for students from year 6 to the end of compulsory school. Consequently, the support may not be documented at all.

Special education support, on the other hand, is a category of more extensive support (Swedish National Agency for Education, 2014). In order to implement such support, the principal has to make a formal decision. The support must also be documented in an "action program." The principal may not necessarily be involved in the work with supplemental support, since no formal decision has to be made to implement such support. Nonetheless, this individual has the overarching responsibility for the quality of both kinds of support.

An important distinction between supplemental support and special education support is that the latter can be provided by removing students from the general education classroom to other settings such as "self-contained classrooms" with smaller groups of students with similar needs. Supplemental support, on the other hand, involves adjustments made within the classroom, although special education teachers may still be involved. However, students with supplemental support are always (to some extent) included in the ordinary instruction, whereas students receiving special education support may be included or excluded from ordinary instruction.

It is also important to note that the requirement for supplemental support is a recent addition to the Swedish Education Act (added in 2014). This means that almost all Swedish research on student support is focused on special education support, not supplemental support. Therefore, in the following section, support refers to special education support, unless supplemental support is specifically mentioned.

Support for Low-Achieving Students in Sweden

The question posed above is why not all students leave compulsory school with passing grades according to the intentions of the reform and Swedish legislation. This is a complex question to answer. Part of the problem could be, for instance, that the goals and standards in the curriculum are difficult to interpret and/or operationalize in assessments. A recent survey performed by the Swedish National Agency for Education (Swedish National Agency for Education, 2016) supports that assumption; less than half of the responding teachers perceived that the current standards are easy to understand. If the standards are not clear, how can one know whether a student has passed this standard or not? It could therefore be assumed that there is a very large degree of uncertainty around the judgments involved in determining whether students should pass a subject. This is most likely also true for subjects where there are national tests to support teachers' judgment, since the cut scores in these tests have a high level of uncertainty. For example, a governmental report on national tests in Sweden indicates that random error alone is estimated to cause ∼20–30 percent of the students to receive erroneous test results in mathematics. Since this analysis was performed during a period with a four-level grading system, compared to the current six-level scale, the measurement errors are estimated to have increased by ∼50% in today's tests (SOU, 2016:25).

Another possible reason for all students not receiving passing grades is that the students in need of support are difficult to identify. However, findings from Swedish research and evaluations suggest that these students are indeed identified. Nonetheless, there seems to be a difference in how this is done depending on the kind of difficulties students have. While screening tests and national tests are commonly used to identify students with learning difficulties, the identification of behavioral problems is based on how the students function in the classroom (Isaksson et al., 2007). There are two particularly important implications of this finding. First, it means that students with learning difficulties can be identified and assessed with greater precision, whereas the identification of behavioral/motivational problems depends on more intuitive "measures." Perhaps as a result of this, support is often provided quite early during compulsory school for students with learning difficulties, usually in year three or four (Giota and Lundborg, 2007). However, the occurrence of support drops significantly during secondary school (Persson, 2001 as cited in Swedish National Agency for Education, 2003), when behavioral problems tend to dominate. Second, even if students in need of support are identified (as individuals), this is not the same as identifying their specific needs. If their specific needs are not known, it is difficult to match students' needs with appropriate support. This problem is highlighted in a recent inspection by the Swedish Schools Inspectorate (2016) that specifically focuses on supplemental support for low-achieving students. The document shows that in the majority of cases, schools were not able to identify the needs of the individual students and/or match appropriate support with students' needs. Many students therefore seem to

receive the same kind of support, regardless of their specific needs.

A third reason for all students not receiving passing grades could be that the support provided is not effective enough. For instance, one of the most common ways to provide support is basic skills training. This support is often connected to an adjustment of the text-books used, for instance, by making the material shorter and easier to read. Another common way to provide support is through homework, where it (to some extent) becomes the parents' responsibility to support their child (Swedish National Agency for Education, 2003; Andreasson, 2007; Isaksson, 2009). That this support is generally not effective in compensating for the differences between students with support and those without is shown by a large longitudinal study, using statistical data from ~17,000 students. The results from this study indicate a negative relationship between support and students' final grades. This means that those who have been provided support tend to do worse in school than those who have not been provided support. This relationship is particularly evident for students being placed in separate groups. It is important to note, however, that the support is not necessarily *causing* these students to fail, although this possibility cannot be ruled out. Rather, measures of cognitive ability suggest that these students do not always have the skills required for success in school. The support may therefore have had a positive effect, but may not have been significant enough to compensate for the differences between students with support and those without (Giota and Lundborg, 2007). Unfortunately, since many schools do not document and evaluate the support provided, the effects of support in individual cases is often not known (Swedish Schools Inspectorate, 2016).

BASIC SKILLS TRAINING vs. SCAFFOLDING

It is difficult to provide a comprehensive overview of international research on low-achieving students, not least because there are several strands of research, starting from different perspectives, and a significant number of studies also focus on specific subjects, such as mathematics. This section, therefore, will focus specifically on basic skills training since, as noted above, this one of the most common ways to provide support in Sweden. Furthermore, "scaffolding" is presented as an alternative to basic skills training.

The main arguments for basic skills training are that low-achieving students need to learn these skills before being able handle more complex knowledge, as well as to build their self-confidence by experiencing success. International research partly support this view. For instance, Forness (2001) reviewed results from 24 meta-analyses of studies investigating the effects of different special education interventions. It is striking to note that all meta-analyses reporting large effect sizes have been concerned with mnemonic strategies, reading-comprehension strategies, behavior modification, and direct instruction. Thus, "best practice," according to Forness (2001), involves direct instruction with strategies for remembering content, but also monitoring

students' progress and providing positive consequences for improvement, which seems to capture much of the essence of basic skills training. Furthermore, findings from a rigorous meta-analysis on teaching effectiveness by Seidel and Shavelson (2007), clearly suggests that providing opportunities for students to engage in domain-specific learning activities is more effective, as compared to a focus on how learning is organized or the social context. These findings are consistent for different subjects, stages of schooling, and educational outcomes, including motivational–affective outcomes.

On the other hand, basic skills training means that the educational content and depth is restricted, limiting the opportunities to learn. There may also be stigmatizing effects from not doing the same assignments as the other students (Ingestad, 2006). These effects may be especially pronounced if students are placed in ability groups, a practice that has been shown to be widespread in Swedish upper secondary schools (Ramberg, 2016). Although there are some studies reporting positive outcomes from ability grouping, suggesting that it may be beneficial for specially talented or high-achieving students (Johnston and Wildly, 2016; Ramberg, 2016), the overall picture is that ability grouping is academically, socially, and psychologically disadvantageous for students placed in low-achieving groups (Slavin, 1987, 1990; Björklund et al., 2010; Johnston and Wildly, 2016).

Since limiting the opportunities to learn, and to some extent also the stigmatizing effects of doing other assignments, are inescapable parts of basic skills training, "scaffolding" has provided an interesting alternative. Scaffolding means that students receive increased support (e.g., more time, peer or teacher support, access to computers) when needed, but that this is gradually decreased ("faded") when students no longer need it (Van de Pol et al., 2010). If scaffolded, low-achieving student may do the same assignments as the other students, but with more support when needed. The concept of scaffolding has been widely implemented in technology-supported teaching (Quintana et al., 2004), where the scaffolding feature can be built into the pedagogical design, but is also a growing field of research in relation to low-achieving students (e.g., Broza and Kolikant, 2015; Prediger and Krägeloh, 2015; Haruehansawasin and Kiattikomol, 2018).

As suggested by van de Pol et al. (2015), scaffolding allows the teacher to adjust the level of control, which in turn affects students' cognitive processing. If the level of control is too high for a student (i.e., receives too much help), the student is not challenged to actively process the content. Conversely, if the level of control is too low (i.e., does not receive enough help), deep processing cannot take place. These authors also show, from an experimental study involving 768 students (age 12–15), that the frequency of support affects the effectiveness of scaffolding. In situations where support is frequent, a low level of scaffolding was more effective in supporting students' performance and task effort, while in situations where support was less frequent, a high level of scaffolding was more effective. Other studies also report that fading plays an essential role in enhancing the effectiveness of scaffolds, since it forces the students to take greater responsibility for their learning (Fang et al., 2016).

Students' Motivation

Yet another reason for all students not receiving passing grades, and the last one that will be discussed here, could be that students lack the motivation to perform well in school. As Crumpton and Gregory (2011) emphasize, engaging in classroom activities is often perceived as having minimal value to many low-achieving students. These authors also cite an American survey, where a very large proportion of the students (65%) reported that they found school boring (Cornell and Gregory, 2008).

Student motivation is important to consider, since in order for support to have an effect, students must accept and be willing to use that support. Furthermore, students with motivational problems may not be helped by the same kind of support as students with learning difficulties. For instance, self-determination theory (SDT) suggests that learning environments supporting certain general needs (i.e., autonomy, competence, and relatedness) will positively affect students' motivation (Ryan and Deci, 2000). This relationship has been established in a number of empirical studies (e.g., Cheon and Reeve, 2015; Haerens et al., 2015). A recent study has also established the connection between motivational aspects and the level and change in students' academic effort (Lazarides and Raufelder, 2017).

A number of different theories on motivation exist, which address different motivational constructs, such as goal orientation and academic self-concept (see Schunk et al., 2013, for a lucid overview). However, self-efficacy is often regarded as one of the most critical. Self-efficacy is the belief about the personal capabilities to perform a task and reach the established goals. The concept was introduced by Bandura (1977) and is a part of social cognitive theory. As explained by Keller Carman (2015), students rely on their self-efficacy to determine their course of action with academic tasks. Since low-achieving student are likely to expect poor performances of themselves, these students might avoid rather than pursue tasks they think they cannot perform successfully. Self-efficacy has also been shown to be a strong predictor of academic achievement in numerous studies (e.g., Skaalvik and Skaalvik, 2004). The crucial role of self-efficacy therefore points to the importance of making the students believe that they can succeed. This is most effectively attained by helping students to succeed on academic tasks, for instance, by scaffolding their performance. Experiences of success may increase students' self-efficacy, resulting in less avoidance and more learning-oriented strategies, which by extension may improve their performance.

SDT is also of interest here because it focuses on the social-contextual conditions that may enhance (or undermine) students' motivation, with a specific emphasis on intrinsic motivation,[2] self-regulation, and well-being (Ryan and Deci, 2000). There is also, as mentioned above, an established connection between motivational aspects of SDT and student behavior, in terms

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[2]SDT makes a distinction between intrinsic (or autonomous) motivation and external (or controlled) motivation. That students are intrinsically motivated means that they are interested and perform for their own sake, whereas external motivation means that they are motivated by external incentives (such as grades) or the fear of failure.

of students' academic effort (Lazarides and Raufelder, 2017). According to SDT, three basic needs are thought to be essential for enhancing intrinsic motivation: competence, relatedness, and autonomy. For instance, providing feedback that makes the students perceive themselves as competent makes it more likely for the students to engage in similar tasks in the future (i.e., motivation is enhanced). Also, providing negative feedback or giving the students assignments that are too difficult, thereby making them feel incompetent, may decrease their motivation to engage in similar tasks in the future. In this regard, SDT is similar to self-efficacy. However, SDT also suggests that a perception of competence will not necessarily enhance motivation, unless accompanied by a feeling of autonomy. In other words, students need to believe that their own efforts enabled them to succeed (Ryan and Deci, 2000). The third factor, relatedness, has also been shown to affect student motivation, albeit not always as strongly as the others. For instance, student cooperation can result in stronger feelings of relatedness among students. However, these feelings have been shown to be stronger for females than males (Ntoumanis, 2001, 2005). Some people also feel motivated to perform even in isolation from others. Nonetheless, it has been assumed that a caring teacher and positive student relationships are likely to have a positive influence on student motivation and that low-achieving students in particular have a greater need for relatedness (Hornstra et al., 2015).

In summary, according to SDT, the needs for competence, autonomy, and relatedness are assumed to be essential in enhancing student intrinsic motivation. Teachers can support students' motivation by inducing feelings of *competence*, for instance, by emphasizing the mastery of tasks and providing positive feedback; *autonomy* by asking students' opinions, providing choices, or giving them time to work on a problem in their own way; and *relatedness* by being caring and/or facilitating cooperation between students (Ryan and Deci, 2000; Ntoumanis, 2005; Reeve and Jang, 2006).

AIM AND RESEARCH QUESTIONS

This article started with the observation that not all students receive passing grades in Swedish compulsory school, despite the intentions of the curricular reform and the Swedish Educational Act. The above review of both Swedish and international research reveals that there may be several reasons for students not receiving passing grades. These include the uncertainty imposed by unclear standards, as well as the difficulty to identify the specific needs of individual students and match these needs with appropriate support. The review also highlights some potential shortcomings of current practice, such as schools and teachers generally only using a very restricted repertoire of strategies for helping low-achieving students, despite the numerous strategies suggested by international research. Furthermore, a difference seems to exist between students with learning difficulties and students with behavioral/motivational problems; the former being identified with more precision and also provided with support both much earlier and to a larger extent. However, if students are generally provided the same kind of support,

primarily directed toward students with learning difficulties, there is a risk of not acknowledging the needs of students with behavioral/motivational problems. The magnitude of this problem is not known, however, since Swedish research so far has focused mainly on special education support. In a sense, special education support is easier to investigate, since it has to be documented in "action programs" which can be studied by textual analysis. Formal meetings and procedures also make special education support more visible to an observer from the outside. On the other hand, the information in the documentation may be "filtered" to include mainly (or only) the information agreed upon by the school and legal guardians. This means that additional information about, for instance, supplemental support, is not necessarily present in such documents. It would therefore be of interest to further investigate the supplemental support provided by teachers and schools, with a particular focus on students with behavioral/motivational problems. Consequently, the current study aims to answer the following research questions: (1) "How are students in need of supplemental support identified?" and (2) "What characterizes the support provided for low-achieving students?" These questions will then be discussed in relation to research on low-achieving students and students' motivation.

METHODOLOGY

This is an interview study with semi-structured interviews and qualitative thematic analysis.

The Sample

The sample consists of 10 schools with 3–8 participants at each school ($n = 54$). The schools were chosen according to numerous inclusion criteria:

- For practical reasons, all schools belonged to the same geographical region.
- All schools had students in year 9, the last year of compulsory school, where the problems with students at risk of not receiving passing grades become most pronounced.
- No school had fewer than 30 students in year 9, which means that very small schools, with presumably different possibilities to handle the problems with at-risk students compared to the average school, were not included.
- All schools had a share of students not receiving passing grades in all subjects that was close to the national mean (26%), which means that schools at either extreme (i.e., almost all or no students passing all subjects) were not included.

There were 42 schools in the region, which fulfilled these criteria. Letters were sent to the principals of the schools, providing information about the research and asking whether they would like to participate. When 10 schools had responded, no more were included in the sample. In **Table 1**, data for the schools in the sample is presented. Since school data is public, no exact numbers are presented to avoid identification of the schools in the sample. Instead, a range is presented for both the number of students in year 9 and the share of immigrant students. The share

of students not receiving a passing grade in all subjects ranges from 22 to 36 percent in the sample (mean = 27.3).

In the letters sent to the principals, asking for participation, the request was to interview (a) the principal together with a special education teacher, and (b) three individual teachers, teaching different subjects in year 9. The actual sample, which differs somewhat from the request, is presented in **Table 2**.

In the sample, a total of 42 were females (78%) and 12 were males (22%). Among the teachers, most taught two or more subjects. These subjects were mostly first or second languages (Swedish or English), science (social or natural), or mathematics. However, some taught foreign languages (French, Spanish, and German), physical education, art, and craft and design. **Table 3** lists all teachers in relation to school and subjects. When references are made to individual teachers' statements in the results section (for example, "School A, Teacher 1"), **Table 3** can be used to see which subjects the particular respondent is teaching.

TABLE 1 | Data for the schools in the sample.

School	Area	Organization	Students in year 9	Immigrant students (%)
A	Small community	Year 7–9	>125	10–20
B	Small community	Year 7–9	50–75	10–20
C	Large community	Preschool, year 1–9	100–125	30–40
D	Large community	Year 7–9	50–75	40–50
E	Inner city school	Year 1–9	75–100	40–50
F	Large community	Year 7–9	100–125	10–20
G	Small community	Year 7–9	75–100	<10
H	Small community	Year 7–9	100–125	30–40
I	Small community	Year 4–9	50–75	10–20
J	Small community	Year 4–9	50–75	10–20

TABLE 2 | Sample of the participants in the study.

School	Teachers	Special-education teachers	Principals	Participants per school
A	2	1	1	4
B	4	1	1	6
C	2	1	2	5
D	2	3	1	6
E	3	1	1	5
F	4	3	1	8
G	3	1	1	5
H	5	1	1*	7
I	3	1	1	5
J	1	1	1*	3
Total	29	14	11	54

The interview was not together with the special-education teacher and could not be recorded. Only notes were taken.

TABLE 3 | List of all teachers in relation to school and subjects.

School	Teacher	Subjects	Gender (Female/Male)
A	1	Swe, So	M
	2	Ma, Na	F
B	1	So	M
	2	Lang	F
	3	Lang	F
	4	Ma, Na	M
C	1	Swe	F
	2	Ma, Na	M
D	1	So	M
	2	Lang	F
E	1	Swe, Eng	F
	2	Ma, Na	M
	3	PE	F
F	1	Eng	M
	2	So	F
	3	Ma, Na	F
	4	Ma, Na	F
G	1	So	M
	2	Swe, Eng	F
	3	Ma, Na	F
H	1	So	M
	2	Primary teacher	F
	3	Ma, CD	F
	4	Swe	F
	5	So	F
I	1	PE	M
	2	So	F
	3	Art	F
J	1	So, Eng	F

Eng, English; CD, Craft and design; Lang, Foreign languages (except English); Ma, Mathematics; Na, Natural sciences; PE, Physical education; Swe, Swedish; So, Social sciences.

The Interviews

All of the interviews were semi-structured and followed a common interview protocol with seven main questions, divided into two parts. The first part contained questions about the identification of students in need of support, whereas the second part contained questions about the support provided. Both parts were document-based, meaning that the teachers were asked to bring teaching materials to the interviews, exemplifying how they work with low-achieving students. For instance, in the interviews, teachers were asked to explain how they used this material when assessing and supporting students. The interview protocol also contained a couple of short vignettes, describing the practice of fictional teachers. These were used in some cases to facilitate the discussion.

The interviews with teachers were almost exclusively carried out in conference rooms and recorded with a digital MP3 recorder. On one occasion, the teachers were not interviewed individually, but as a group (School F). On average, the interviews lasted for ~43 min (23 h and 40 min in total). Copies or

photographs were taken of the assignments, tests, assessment rubrics, and other classroom materials that teachers brought to the interviews, adding to the data material.

For the interviews with principals and special education teachers, a different interview guide was used. This guide contained six questions focusing on the routines and guidelines at the school, how the work with supplemental support resembled/differed from special education support, how this work was documented and evaluated at the school level, and the different roles and responsibilities for principals, special education teachers, and ordinary teachers.

On two occasions, the principal was not interviewed together with the special education teacher/s. Instead, the interview was performed at the principal's office. During these instances the interviews could not be recorded. Therefore, only notes were taken.

The Analysis

The interviews were analyzed with conventional thematic analysis, which is a method for identifying, analyzing, and interpreting patterns of meaning (or "themes") within qualitative data (Clarke and Braun, 2017). The analysis followed the procedure outlined by Braun and Clarke (2006), which, in this case, means that the following step were taken:

1. The first step was to listen to the audio data and create time logs in spreadsheets, so that the different parts of the interviews could be searched and organized. This step also involved reading the documents and photographs collected, as well as short notes taken during and after the interviews. Initial ideas were noted in a Word document.
2. Interesting features of the data were coded across the data set and the data was organized in relation to questions such as "Which students are seen as in need of support?," "How are these students identified?," "What kind of actions are implemented as support?," as well as in relation to different organizational levels (i.e., individuals, groups, classes, and schools).
3. Codes were assembled into initial themes in relation to the research questions, gathering data relevant to each initial theme. Since the data collection and analysis was performed by one person (the author), the initial themes were presented to, and discussed with, peer researchers, as well as in-service teachers and special education teachers at two seminars in order to refine the themes.
4. Revised themes were checked against coded extracts and the data set as a whole.
5. The specifics of each theme were refined.
6. A selection of compelling extract examples for this article was made.
7. The extracts were translated to English by the author and then checked by a professional language editor.

FINDINGS

The findings of this study are presented under four headings: "Identifying low-achieving students," "Providing support—the

archetypal pathway," "Supporting students' motivation," and "The kind of support provided." The first section is based on interviews with all participants, the second on interviews with principals and special education teachers, and the remaining two on interviews with teachers.

Identifying Low-Achieving Students

Two ways to identify low-achieving students are represented in the sample. One is to use a kind of screening, and the other is teachers noticing students' difficulties during ordinary instruction. A number of teachers also mention information about students provided by teachers who previously taught the same students (often from year 4 to 6). However, most teachers in the sample are reluctant to use this information, since they want to meet the students without any preconceived ideas about their capabilities or previous (bad) behavior.

Screening tests are not very common among the schools in the sample. Some teachers claim that it was more common a few years ago. However, the national tests in year 6 have replaced the screening in mathematics, Swedish, and English. Nonetheless, so-called "DLS tests"[3] are mentioned at a couple of schools, which are standardized and norm-referenced diagnostic tests for reading and writing abilities.

In most cases, low-achieving students are identified by their teachers in the classroom:

> I think you notice by the activity. I mean, what is done in the classroom. How active they are. Here I see if someone is not really following. There's not so much activity … Then I become a bit suspicious and I'll check. (School F, Teacher 2).

> May be you walk around in the classroom and watch them while they work. You talk to them. I usually have some kind of small test pretty early and there you also see who the low-achieving students are. When you have worked some years as a teacher, you can identify these students quite quickly. (School G, Teacher 1).

The identification of students with behavioral and motivational problems is based on how the students function in class, whereas students with learning difficulties are identified based on a combination of assessments and observations. Most teachers also claim to identify these students quite early, often only a few weeks after starting to teach a new group of students. For example, Teacher 1 at School D can see a clear distinction where some students are more self-confident and self-regulating, while within the group of low-achieving students there is much less, or no, activity among the students. Another teacher (School A, Teacher 1) claims to "hold the world record in frequent testing of homework." He is therefore able to identify low-achieving students based on their performance on these tests. In both first and second languages, as well as in mathematics, diagnostic tests are frequently used to identify students in need of support. In the natural sciences, on the other hand, the teachers seem to rely more on end-of-unit tests. This means that it takes slightly longer to identify the

low-achieving students. As suggested by one of the teachers (School C, Teacher 2), students' performance also differ much more between different units in the natural sciences (such as the human body vs. astronomy). This may also affect the time required for teachers to gain a clear picture of students' capabilities.

Providing Support—The Archetypal Pathway

This section will present an overall picture of how the schools in the sample deal with low-achieving students. Even though there are differences between the schools, this presentation will focus on similarities, painting a picture of "the typical school" in the sample.

When students are identified to be in need of support, teachers are supposed to provide supplemental support in the classroom as a first step. A typical example of such support is by providing more detailed instructions to selected students.

In cases lacking sufficient progress following this support, the teacher can discuss selected students with peers in the teaching team, sharing ideas about possible solutions with each other. For instance, if some teacher/s has/have found support that seems to work with a particular student, other teachers can also use similar solutions. At most schools, teachers in a team meet regularly once a week.

The role of special education teachers in the process differs slightly between schools. In some schools, they attend the teaching team meetings and can therefore be part of the weekly peer discussion. In other schools, the individual teachers may have to take the initiative to contact a special education teacher. The special education teachers can be assigned to a particular team of teachers, a particular grade level, or some other specified part of the organization, or they could be part of an over-arching special education team, serving the entire school. Most of the examples of support given by special education teachers are general, in the sense that they are not subject-specific. However, most examples are also general in the sense that they are not specific to any particular kind of difficulties.

If sufficient progress is still lacking, the teacher will report to a "students' health team," which most often is comprised of the principal, the school nurse, the school counselor, and/or social worker, and one or more special education teachers. In this group, it is decided whether a formal action program will be issued and special education support provided. In such a case, one is no longer dealing with supplemental support.

Supporting Students' Motivation

The participants in this study clearly distinguish between students with learning difficulties and students with behavioral/motivational problems. However, supplemental support is mainly directed toward students with learning difficulties. There seems to be a general lack of approaches for dealing with motivational problems. Even when asked specifically about these students, few teachers are able to provide examples of how to provide support for students with motivational problems.

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[3]DLS stands for "Diagnostic material for the analysis of reading and writing ability" (Translated from Swedish by the author).

Some teachers have even resigned, stating that these students "don't know why they are here" and that school is "not their turf." These teachers suggest that students lack either the maturity or the ability to benefit from, and appreciate, what the school has to offer them. Instead, these students are somewhat expected to endure compulsory school, waiting for a more meaningful education in upper-secondary school, where they can choose a program that meets their specific area of interest (School B, Teacher 1).

In cases where support for students with low motivation is mentioned, it is often in relation to universal strategies, thought to support both students with learning difficulties and students with motivational problems. For instance, Teacher 1 at School D works continuously with formative feedback, which he claims supports most students, including high-performing individuals. Similarly, Teacher 1 at School C works with increased transparency and structure, which she claims support both students with learning difficulties and students with a lack of motivation.

There are also very few examples of support involving the learning environment as a whole in the material. This means that the students (as individuals) are almost entirely the main focus of support, whereas the teaching and the institution are left unchanged. However, two schools in the sample (Schools E and I) have a different, more flexible organization. What is characteristic for these schools is that there are no static classes. Instead, a team of teachers is responsible for a number of students in the same age group. The teachers may then group the students into constellations of different size and duration, depending on specific activities (such as laboratory work in science) or the specific needs of groups of students. Students' needs are therefore the responsibility of the organization, not of individual teachers.

In particular, School E stands out since this school has made systematic use of contemporary research on teaching and school development. This has resulted in two major changes in pedagogy. First, authenticity: What students do in school should count outside the school as well. The school therefore offers a lot of activities that cross the boundary between school and local society. Second, student performance is assessed in iterative cycles with formative feedback and increasing demands. The students can therefore complete similar assignments several times. However, for each new cycle they are expected to improve their performance. According to Teacher 2, the students find this really rewarding, since they strive for quality and can monitor their own progress. The teachers perceived both of these changes in pedagogy (authenticity and formative assessment) to increase student motivation.

The Kind of Support Provided

The supplemental support provided for low-achieving students can be classified into several different categories based on factors such as duration and intensity. However, such fine-grained categorizations will not be the main focus of this article. Instead, since the findings suggest that teachers and schools use different approaches when providing support to low-achieving students, three over-arching categories characterizing the support as described by the informants across the sample will be presented. These approaches have been categorized as supportive and relational, simplifying, or general and practical.

A Supportive and Relational Approach

One of the recurring themes in the interviews is that low-achieving students are in greater need of clear expectations than other students. For instance, Teacher 1 at School B spends a lot of time trying to explain the difference between different levels of reasoning. According to him, the level of reasoning needed for a passing grade is not very demanding. This means that low-achieving students may fail because they do not understand what is expected of them, and not necessarily because they lack the relevant knowledge or skills. Teacher 1 at School C explains:

> If you can be extraordinarily clear when speaking to the whole class or for, I mean, everyone, then much is already gained for those who are weak. And then when you are finished, you have to approach these students individually: "Do you know what to do?", "Do you know how to start?" Sometimes they say: "I don't have a clue!" Then you have to take it one more time.

Another way of communicating expectations is to use scoring rubrics and other written materials. The use of rubrics is the most prevalent example in the sample, but there are also examples of guidelines (sometimes called "scripts") for particular assignments. Most examples are from teaching in Swedish, including criteria for assignments such as how to write a short story or how to formulate arguments. According to for instance Teacher 1 at School E, low-performing students are those who benefit the most from using rubrics, especially in combination with peer assessment:

> If they haven't written enough texts through the years that they themselves think are good, then they don't know what a good text looks like. But if they get to see a good text and you analyze it… and you start thinking about which are the qualities in this particular text, then they will have some understanding.

Besides the importance of clear expectations, structuring their work is a task considered to be particularly difficult for low-achieving students. Teacher 1 at School D explains that most low-achieving students share the inability to structure their work, regardless of the reasons for their difficulties:

> **Teacher:** Support is still quite similar. I mean, the actual adjustments have something in common in that they [the students] have difficulties in taking in the information and handling the material. The reasons can of course be very different, but the support can still be quite similar in some way.
>
> **Interviewer:** Can you give some examples of how you work?
>
> **Teacher:** Yes, in most cases they [the students] perform better orally compared to in writing. Written performance takes a lot of energy and is difficult to structure and structuring is often something that is demanding, something these students are in need of. They need help structuring and working part by part. I mean, they have difficulties handling more comprehensive assignments. So you should break it down into smaller parts.

In addition to breaking down more comprehensive assignments into smaller parts, feedback is also seen as a way to provide structure:

> Feedback is also really important because they [the students] need feedback all the time, both oral and written feedback. This is part of the structure. To know where I am right now, where I need to go, and what I have done. So I think that feedback often works best when they try for themselves first and then you look at what they have done and from this you try to guide them. (School D, Teacher 1).

Another way to provide support is by building relationships. Low-achieving students are considered vulnerable and in need of being protected from failure. The teacher may therefore have to make a symbolic contract with each individual student, stating that they have to work together in order to succeed:

> For me as a social-sciences teacher who meets them so often I get to know them quite well, what they can do or not and what we should do for them to manage their assignments. A lot of the low-achieving students are in greater need of personal coaching or a personal treatment from the teacher, meaning that you negotiate with the individual student about what to do and that you get them to trust you, that you are going to help them, that they will make it if they, we, only cooperate. (School G, Teacher 1).

> My way of reaching students in these situations is most often to build relationships. All the time: Build relationships, relationships. To make them feel safe in this and how we'll work together. Because a lot of these students don't have any support from home. (School B, Teacher 2).

A Simplifying Approach

A common approach to support low-achieving students is by reducing the difficulty and complexity of assignments and teaching materials. Students whom the teacher perceives to have low ability can therefore be given (or they can choose) assignments that are either less extensive or less complex than the ordinary assignment:

> There you do an adjustment and say that: no, you should focus on this because this is the minimum demand for what you should know. So don't think about all the other things right now, those things that your classmates are working with. Because this is the minimum demand… It [the curriculum] says that all students should know the elementary particles, what an atom is composed of. Everyone should know that the electron is moving around a nucleus and that the nucleus consists of neutrons and protons. Then, for those who can move on, they can start calculating how many protons and neutrons there are in the atom. But there you stop for the students that… no, you should only know the particles and where to find them. And they don't need to calculate any numbers. (School G, Teacher 3).

The citation above, where some students are only required to learn simple facts about the elementary particles, is an obvious example where the difficulty and complexity of the assignment is reduced for low-achieving students. **Figure 1** provides a similar example, where students who have failed the ordinary test can take a retest, which only covers isolated facts about blood and the human digestive system. The students can then achieve a passing grade by memorizing and repeating these facts on a written or oral test.

In some cases, there is no "ordinary assignment," but a range of assignments with different difficulty. For instance, Teacher 1 at School J may have four different versions of the same task, so that students may choose a task with a level of difficulty corresponding to their particular profile. Although common practice at several schools in the sample, a number of teachers find it immensely stressful:

> /…/ you get a feeling that you're supposed to make a lot of spectacular adjustments, which means that you have like two or three courses running in parallel in the same classroom, which is totally impossible. (School D, Teacher 2).

Another example is when the teacher underlines keywords or passages in the textbooks, so that the students using these books can more easily find what is considered important. As one of the teachers explained, aiming for the minimum level of performance is often negotiated with the students:

> Then you have to make it clear that this is a base level. But many are satisfied with that. They know themselves and think it is totally OK to … to only pass. With the lowest grade. (School D, Teacher 1).

While some teachers regularly provide assignments of different complexity as a support, as well as more basic text- and exercise books, other teachers in the sample strongly oppose to this practice. The argument is that by providing students with easier tasks, they will not have the opportunity to reach the minimum requirements of the curriculum. According to these teachers, basic skills training does not support the development of the complex competencies for which they should be striving. Therefore, all students should be given the same assignments, but with different scaffolding structures. More severe difficulties means that more support should be provided, but always with the same opportunities. Interestingly, although not necessarily a generalizable finding, is a clear difference between teachers in social vs. natural sciences in the sample. While the latter teachers mostly embrace the use of basic training and simplified teaching materials, the former almost unanimously reject the possibility of lowering expectations for low-achieving students:

> /…/ in my subjects, from E to A, you're supposed to be able to analyze, you're supposed to know the more abstract things and then you can't reduce the complexity because then it becomes even harder to analyze. By simplifying it actually becomes more difficult to reach a passing grade, if you don't give them the whole assignment. We used to have easy materials during the former curriculum, but it doesn't work anymore. (School F, Teacher 3).

> It is very difficult as a teacher to find the appropriate level for those assignments that are supposed to be a little easier. Because there's a risk that they are not challenging enough too… In a subject

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Study for re-test   (Blood and digestion system)

Humans have approximately 5 liters of blood.

Blood is composed of a **liquid (blood plasma)** where **red blood cells**, **white blood cells**, and **platelets** float around. I the blood plasma there are also different solvents, such as nutrition and residues.

red blood cells contain **hemoglobin** that has an affinity to bind and release oxygen and CO_2.

white blood cells are of different kinds and they protect the body against foreign substances.

Platelets make the blood coagulate and bleeding stop.

Arteries lead blood from the heart

Veins lead blood to the heart

Capillaries are microscopically thin blood vessels where the exchange of substances is made between the blood and the cells of the body
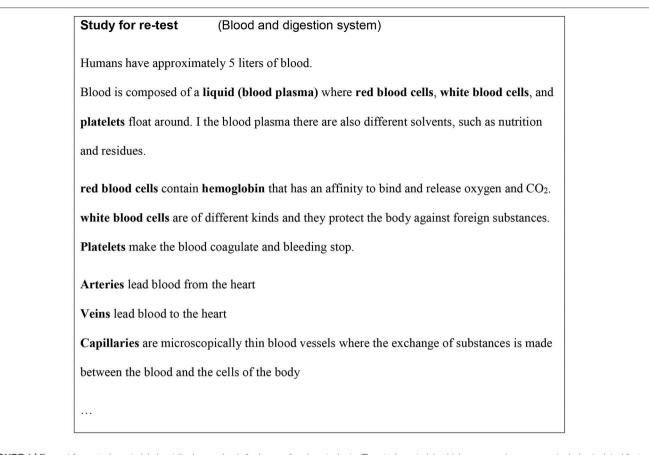
…

FIGURE 1 | Excerpt from study material about the human body for low-performing students. The study material, which covers only one page, includes isolated facts about blood and the human digestion system (the latter not shown in the figure), where biological concepts are highlighted with bold fonts. This particular excerpt is from School C, but several other schools in the sample had very similar study materials.

like the social sciences, which I'm teaching, it's not easy to make adjustments through easier assignments. Instead I mostly, I'd say, work with assignments that *all* students are supposed to do. And ask: How do we handle this assignment just for you? (School G, Teacher 1).

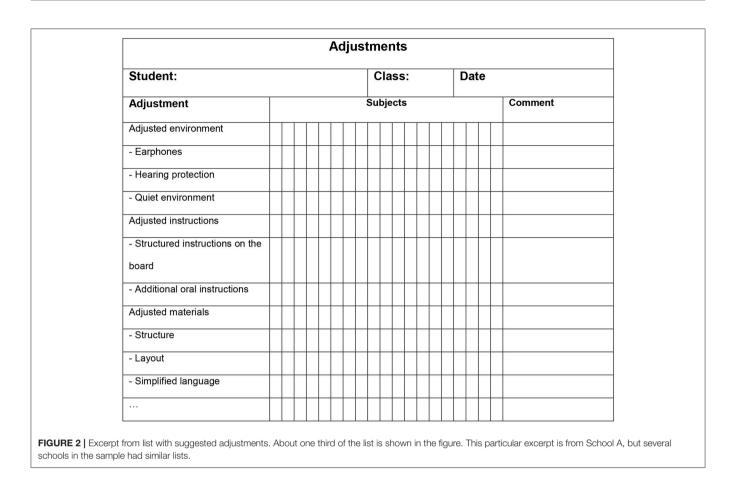## A General and Practical Approach

The majority of support described in the interviews is suggested by the special education teachers, who at several schools have compiled lists of possible support. This support is mostly generic and applicable across subjects and students. It is also of a practical nature. Typical examples are where to place students in the classroom, having a clear structure when using the whiteboard, and frequently reminding students about what they are supposed to do (**Figure 2**).

The example in **Figure 2** focuses on individual students. This means that each teacher has a list where the support is combined with students' names in a matrix and there is a set of adjustments for each specific student. However, there are also examples of support that groups of students can use, such as when all students are allowed to use computers for writing or use certain programs/applications.

A very common application, available at most schools, supports students by reading written text out loud. Such support is available for all students who wish to use it, and not only for low-achieving students. The support may also be used in most or all school subjects. One example is the application Showbie:

These students who write on iPads, they can send it here instead of … then there is no need for any papers. If you have reading or writing difficulties then it is a good support … or for those who have difficulties concentrating and getting anything down on paper. They usually think it is easier to write on iPads. (School B, Teacher 2).

DISCUSSION

This study aimed to investigate how low-achieving students are identified and the characteristics of the supplemental support provided for low-achieving students. This was achieved by interviewing teachers, special education teachers, and principals at a number of Swedish schools.

Adjustments		
Student:	**Class:**	**Date**
Adjustment	**Subjects**	**Comment**
Adjusted environment		
- Earphones		
- Hearing protection		
- Quiet environment		
Adjusted instructions		
- Structured instructions on the board		
- Additional oral instructions		
Adjusted materials		
- Structure		
- Layout		
- Simplified language		
…		

FIGURE 2 | Excerpt from list with suggested adjustments. About one third of the list is shown in the figure. This particular excerpt is from School A, but several schools in the sample had similar lists.

The Identification of Low-Achieving Students

The findings indicate that the schools in the sample, similar to what previous research has suggested (Swedish National Agency for Education, 2008), are successful in identifying students in need of support, but not necessarily in identifying the specific needs of individual students. Also, similar to previous research (Isaksson et al., 2007), this process may differ between students with learning difficulties, where screening tests and national tests are available, and students with behavioral problems, who are more loosely identified by the teachers in the classroom.

There are important implications of these findings. For example, if the schools are able to identify students in need of support, but not able to identify the specific needs of these students, the support provided may not be helpful. Rather, as shown by the Swedish Schools Inspectorate (2016), students may receive the same kind of support, regardless of their specific needs, and based on what is available instead of what is actually needed (Hjörne, 2004). Furthermore, by being identified as in need of support, the self-efficacy and self-concept of these students may be affected, which in turn may have an impact on how they tackle future assignments and how they perform (Keller Carman, 2015). Consequently, if being identified as in need of support, while not receiving appropriate support, there is a risk of stigmatizing these students by "labeling" (Heimdahl Mattson

and Roll-Pettersson, 2007) them as low-achievers and potentially making the situation worse.

That the process of identifying students in need of support differs between students with learning difficulties and students with behavioral problems also have important implications. First and foremost, it means that students with learning difficulties can be identified and assessed with greater precision, and more "tailor-made" support provided. Support may also be provided earlier (Giota and Lundborg, 2007). However, if the identification of students in need of support depends on more intuitive "measures," such as teachers identifying students with behavioral/motivational problems during instruction, there is less precision and the support provided potentially less well-adapted to the needs of the individual students.

Providing Supplemental Support for Low-Achieving Students

The findings from the current study do not fully support the picture from previous research (Swedish National Agency for Education, 2003; Andreasson, 2007; Isaksson, 2009), that the repertoire of support provided by teachers and schools is very limited. On the contrary, the interview data contain many different examples of supplemental support. It is notable, however, that the participants—with very few exceptions—did not utilize or make reference to scientifically tested methods for supporting low-achieving students.

As pointed out above, most teachers in the sample were not able to describe any strategies for providing support to students with motivational problems, even when prompted to do so. This finding clearly points to the risk that students with motivational problems may not receive adequate support. However, most schools in the sample claim to have established routines for trying different solutions and collaborating with both peers and special education teachers. This differs from previous reports (Swedish Schools Inspectorate, 2016), where schools have been found to seldom document, monitor, or evaluate the support provided.

Besides these general results, one of the main findings from this study is the different approaches to support identified in the interviews. As the presentation of these approaches reveals, the teachers in the sample have a range of different support to offer. However, the different approaches vary regarding the opportunities they present for the students.

Different Approaches—Different Opportunities

According to the motivational theories and constructs presented above (SDT and self-efficacy), students rely on self-efficacy beliefs in determining which course of action they will take and how long they will pursue. They also need to feel successful and competent to increase their self-efficacy and intrinsic motivation, which is particularly important for low-achieving students who are at risk of academic failure (Ryan and Deci, 2000; Keller Carman, 2015). Students' self-efficacy and motivation can be supported in different ways, and some of the teachers in the sample used *a simplifying approach* for students to succeed, for instance, by providing an easier version of the assignment or the teaching material. In several cases, the teachers also let the students choose which of the assignments to perform. By introducing choice, another of the basic needs of SDT is addressed, namely the need for autonomy. In combination with competency support, this could be presumed to increase students' intrinsic motivation and achievement (Ryan and Deci, 2000; Forness, 2001). Based on teachers' statements, however, this does not always appear to be the case.

There are several possible explanations for the perceived lack of success among the students, despite the combined support for competency and autonomy. First, according to social cognitive theory, less efficacious students tend to expect poor performances of themselves and this, in turn, is likely to lead to negative outcomes for them. Low-achieving students may therefore avoid activities or assignments that they think they cannot perform successfully, pursuing instead tasks that they believe they can master (Keller Carman, 2015). Letting the students choose which of the assignments to perform may not be perceived as a meaningful choice by the students, if there is no real chance of succeeding with the more challenging tasks. Students may also be aware of, or anticipate, the teacher's expectations that they are supposed to choose the easier assignment. Second, succeeding on a task, which the students perceive as a task not requiring the actual competence sought, does not necessarily count for them. If perceived as an "artificial success," neither their self-efficacy nor intrinsic motivation may increase (cf. Bandura, 1977). Third,

students may also perceive not doing the same assignments as the other students as stigmatizing (Ingestad, 2006), which can affect their motivation and effort.

Another disadvantage of the simplifying approach is that the educational content and depth is restricted, limiting students' opportunities to learn. This is acknowledged by several of the participants in the sample, who refused to simplify their assignments. Instead, they provided the same challenging tasks to all students, regardless of students' previous performance. However, this was not necessarily sufficient to increase the motivation and achievement among low-achieving students either. As shown by, for example, Bouffard-Bouchard (1990), although a student in fact have the necessary skills for succeeding on a particular assignment, the perceived self-efficacy may still be low. This is because self-efficacy beliefs are is strongly context dependent and when faced with a novel task, students have no any successful experience to draw upon. Without any scaffolding structure to support them, low-achieving students may therefore not believe that they have the capacity to succeed on the tasks and, again, avoid to engage with the activity. As explained by Keller Carman (2015), if the students do not invest anything in the activity, their self-esteem is not threatened. On the other hand, there is no effect on self-efficacy beliefs either.

This situation differs from the *supportive and relational approach*. By providing support, such as communicating expectations more clearly or by giving formative feedback, low-achieving students are given the opportunity to succeed on the same tasks as the other students and thereby increase their self-efficacy and intrinsic motivation (Bouffard-Bouchard, 1990). However, as discussed above, there is a balance in how much support should be provided, since students also need to believe that they are autonomous and—at least partially—responsible for their success (Ryan and Deci, 2000). Similarly, research on scaffolding suggests that if the students receive too much support, they are not adequately challenged, which may also impact negatively on their effort and performance. This means that teachers need to be sensitive to students' understanding, and gradually remove the support in order to transfer responsibility to the student (van de Pol et al., 2015; Fang et al., 2016).

Some teachers also relied heavily on building relationships with low-achieving students, which is an important (perhaps particularly so for low-achieving students) but not necessarily sufficient condition according to SDT, without simultaneous support for competency and autonomy (Ryan and Deci, 2000). The supporting and relational approach may provide other—and possibly better—opportunities to support low-achieving students than the simplifying approach. Nonetheless, the support of autonomy, competence, and relatedness may not work in isolation from each other. This is also indicated by the data, since most teachers, even those who adopted a supportive and relational approach, had difficulties providing effective support for students with motivational problems. There are exceptions, however. It is notable that one common denominator for these exceptions is that they work with a combination of challenging tasks (autonomy) and formative feedback (competence), where

the latter can be seen as a scaffolding structure that can be adjusted to students' needs.

The *general and practical approach*, which was used by most schools and teachers in the sample, and sometimes in combination with the simplifying approach, involves a balancing act between structure and control, on the one hand, and autonomy on the other. Most of the individual support in this approach means exerting control over the students, for instance, by checking on them at regular intervals or by offering them specific positions in the classroom. Albeit made with good intentions, this support may counteract the students' feeling of autonomy. As pointed out by Hornstra et al. (2015), however, SDT has not specifically addressed potential interactions between relatedness and control. Therefore, teaching involving control, but in combination with relationship building, might still be beneficial for students' engagement. Still, as suggested by research on scaffolding (van de Pol et al., 2015; Fang et al., 2016), this high level of control may need to decrease as the level of competency increases in order to support student autonomy.

Taken together, the different approaches to providing support for low-achieving students offer different opportunities for facilitating student motivation, effort, and achievement. While the simplifying approach may be hypothesized to support students' sense of competency and autonomy, it does not—according the teachers—seem to result in increased motivation, effort, and achievement among the students. Possible explanations are that the students do not perceive choosing between assignments with different levels of difficulty as a real choice, and that students' self-efficacy or sense of competency may not improve from succeeding on less difficult or highly structured assignments. Similar to the simplifying approach, the supportive and relational approach may be hypothesized to support students' sense of competency and autonomy, but again the teachers do not necessarily observe an increase in student motivation, effort, and achievement. This is typically the case when providing challenging and authentic tasks, but without sufficient scaffolding structures to support the low-achieving students. However, by combining challenging tasks and scaffolding structures (such as formative feedback), some teachers claim to have less (or no) problems with student motivation. Finally, although the general and practical approach often involves lowering student autonomy, teachers report positive effects on student motivation if combined with relationship building.

CONCLUSIONS

The current study aimed to understand how students at risk of not receiving passing grades are identified and provided with support by interviewing principals, special education teachers, and teachers. The findings suggest that the schools in the sample are successful in identifying students in need of support, but not necessarily in identifying the specific needs of individual students. Furthermore, the identification may differ between students with learning difficulties and students with behavioral problems.

The findings from this study also suggest that schools and teachers in the sample have different approaches when providing support to low-achieving students. This support can be categorized as supporting and relational, simplifying, or general and practical. These approaches, in turn, may provide different opportunities for students' engagement with schoolwork and their performance. By discussing the findings in relation to SDT and self-efficacy, as well as research on scaffolding, the combination of challenging tasks and scaffolding support, as well as providing structure in combination with caring relationships, were identified as important facilitators of increased student motivation and effort.

Implications for Practice

One of the main implications from this study is that if one wants more students to succeed in compulsory school, one might need to be more attentive to students with motivational problems. While schools and teachers screen for students with learning difficulties and generally provide support for these students relatively early, students with motivational problems are identified by teachers in the classroom based almost solely on their behavior. The consequences are that one might miss identifying students who lack motivation but do not have problematic behavior, and that the support provided may not adequately match students' difficulties. Schools and teachers also need a broader repertoire, and possibly a deeper understanding, of strategies for addressing motivational problems. In this study, very few of the participants were able to provide examples of how to support students with motivational problems. Even though some of the approaches in providing support may indirectly positively impact students' motivation, the different components of the support are seldom orchestrated in a conscious manner. Rather, they are applied in isolation, possibly explaining the lack of motivation among students even in supportive settings.

Another implication of this research involves the observation that several teachers in the sample are overburdened with long lists of individual adjustments and the need to design multiple assignments at different levels of difficulty. This situation, together with the increasing number of students in need of support, questions the idea that each individual student should have his/her own personal set of specific adjustments. What is obviously not explored to any large extent among the schools in the sample is how to change the teaching or "classroom motivational/emotional climate" (Alonso Tapia and Fernández Heredia, 2008; Reyes et al., 2012), in order to support the motivation for all students, both high and low achievers. Again, there are examples of different and more supportive teaching in the material, but this is not the norm. Given the amount of research on effective interventions for low-achieving students, as well as research on numerous different important facets of student motivation, there is at least the potential for more radical changes, as opposed to "patching up" each individual student one at a time.

LIMITATIONS

This interview study was conducted with a limited sample of participants. Furthermore, all interviews have been carried out in a restricted geographical region. The findings may therefore not be representative of any larger population of schools or teachers in Sweden. In particular, it should be noted that all participating schools answered the call voluntarily and all participants participated willingly. Assuming that schools and teachers are more prone to volunteer when they are confident and have a positive self-image, this may suggest that the sample is positively skewed.

As with all interview studies, there could be a discrepancy between what participants say and/or perceive and the actual practice. Since no classroom observations were performed as part of this study, no claims can be made about the actual practice of the teachers and schools in the sample. Teachers were instructed to bring authentic teaching materials to the interviews, and to describe their work in relation to these artifacts. Therefore, the findings from the interviews, together with the artifacts, may have resulted in a more valid representation of actual practice.

Implications for Future Research

In this study, the participants are teachers, special education teachers, and principals working with students in the last year of compulsory school. In particular, there are three ways to extend the findings from this research:

- Being an interview study, with a limited number of schools and participants, the findings are not generalizable statistically. However, the findings could be used to inform the design of a survey instrument in order to investigate similar questions with a much larger sample of participants. A survey could also be distributed to a representative sample of the different regions in Sweden.
- The current sample, focusing on the last year of compulsory school, might provide a non-representative view of the school system as a whole. The sample was chosen with the assumption that the work with low-achieving students would be more accentuated during the last year of compulsory school. Still, a number of school years in Sweden have no national tests or any formal grading, where teachers may have very different strategies for identifying and working with these students. Replicating

this study with a sample of primary schools may therefore provide an interesting contrast to the findings reported here.
- The main focus of this research is low-achieving students, but the participants are adults. Consequently, the student perspective is lacking. This is also true for much of the previous research on this topic in Sweden. Complementing this study with either an interview study or a survey, asking the students about their own experiences, would therefore be an important contribution to research, possibly also to decision-makers at all levels in the school system. However, such research would involve ethical dilemmas in selecting and approaching an already exposed and vulnerable group of students.

Ethical Considerations

This study was carried out in accordance with the ethical guidelines for the Humanities and Social Sciences set out by the Swedish Research Council. The study has not been subjected to review by an ethical committee since, according to Swedish legislation regarding research on human subjects (2003:460), research needs approval from an ethical committee only in cases where personal and sensitive information is handled, when physical interventions are made, or when the subjects may be harmed. In line with this, approval from an ethical committee is not required by Kristianstad University (where the research was conducted) or by Swedish regulations. All subjects have been informed about the purpose of the research, that their participation is voluntary, and that they can interrupt their participation at any time. Informed consent (digitally recorded) was given by all subjects in accordance with the Declaration of Helsinki.

AUTHOR CONTRIBUTIONS

AJ was the principal investigator, who led the design of the study, literature review, data collection, analyses, interpretation, and writing the manuscript.

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