Developing self-efficacy through an extra preparatory school year: Lower secondary students' perspectives on teacher support

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Quantitative and qualitative data have rarely been combined to offer a rich portrait of how self-efficacy develops in a specific context. We responded to this limitation by investigating students' experiences of an extra school year between lower and upper secondary school. The objective of the extra school year is to reduce school dropout by strengthening students' professional and social competences before they enter upper secondary education. The purpose of this paper was to explore how the students' self-efficacy developed during the extra preparatory school year and to evaluate their perspective on the changes in their self-efficacy and sources of development. We applied a mixed methods design using a threefold questionnaire and individual interviews. The data collected for this study were part of a larger research project. Pre- and post-tests using a survey were applied to measure general self-efficacy, Norwegian self-efficacy and mathematics self-efficacy in individuals. A total of 23 qualitative semi-structured interviews with students near the end of their extra preparatory school year complemented the quantitative data. The data were analysed using a combination of Rasch analysis and thematic analysis. Our findings showed that learning and learning processes cannot be seen in isolation from the context, and we concluded that teachers are a central source of students' self-efficacy. In this study, the teachers, in their capacity as facilitators and source performers, helped the students work with their individual purposes in mind, both within the domain of qualification and socialisation. However, these purposes could not have been achieved without the initiative and responsibility of each student. By building positive and trustful relationships with their students, the teachers managed to activate the students and help them take responsibility for the social and academic aspects of their lives. From the students' point of view, the teachers seemed to build contexts in which the educational purposes were present, viewable, sensible and reachable – and important for nurturing the students' self-efficacy. The students reported on their self-acceptance and

feeling of belonging, being forward-looking and being able to portray their future selves as a consequence of mastering their academic disciplines. This study offers a methodological contribution in that we combined quantitative and qualitative data to analyse the students' self-efficacy. The qualitative data allowed for a more comprehensive understanding of the students' increased self-efficacy than that derived from the quantitative data alone.

Introduction

Dropout from upper secondary school is a major societal problem in Norway (Ministry of Education and Research, 2021) as well as internationally (Brown et al., 2021). Lamb et al. (2011) have examined the nature of dropout problem in advanced industrialised countries and describe school dropout as a persistent and critical issue in many school systems, and even refers to it as a crisis. In Norway, despite several initiatives over the past 20 years, the dropout rate has been stable at around 30 percent for each cohort of upper secondary students (Halvorsrud, 2017; Official Norwegian Reports, 2019). The need for sound initiatives thus remains.

In this study, we examined one measure implemented in a Norwegian municipality, namely, the extra preparatory school year (EPSY), which is an additional voluntary qualification year after mandatory lower secondary school (grades 8–10, ages 13–16 years) and before upper secondary school (grades 11–13, ages 16–19 years). The targeted group is "at-risk" students (aged 15–16 years), meaning those who need more preparation before secondary school for scholastic and/or social reasons. The stated aim of the EPSY is to strengthen students' professional and social competences before they enter upper secondary education. In Norway, upper secondary schooling is a statutory right following the completion of 10 years of mandatory schooling.

As a measure to reduce school dropout, the EPSY initiative, which was inspired by a similar initiative in Denmark (Helms Jørgensen et al., 2019), represents something new in Norway. Just over half of all young Danish people chose an additional preparatory school year in 2020 (Ministry of Children and Education, 2022), and the reported outcomes were promising: an evaluation of the Danish initiative concluded that the extra year has positive effects on students' motivation and their social and academic development. Moreover, based on certain premises, the extra school year seems to increase the likelihood of students gaining study or vocational competence through upper secondary education (Nordahl et al., 2011).

During the EPSY, emphasis is placed on strengthening the students professionally by fortifying their academic achievements and personally by nourishing their self-efficacy in a safe learning environment. Self-efficacy is concerned with performance in that it predicts the goals people set for themselves and their performance attainments; that is, it relates to a person's judgements of their personal capabilities (Bandura, 1997). It further refers to a person's belief in and expectation of their own mastery, and this belief in turn governs what effort they invest to achieve their goals (Bandura, 1997, p. 3). Thus, self-efficacy is a future-oriented construct that seems both plausible and necessary to focus on. The EPSY's stated goal is to combine professional teaching with the development of students' self-image, self-confidence and self-efficacy.

In this paper, we report on the experiences of students from their EPSY and examine how this extra year has contributed to their self-efficacy, if at all. While self-efficacy has been the subject of numerous studies and has been found to be correlational in nature with both motivation and performance (e.g., Guay et al., 2003; Ouweneel et al., 2013; Skaalvik and Skaalvik, 2018), an extensive review on the influence of academic self-efficacy on academic performance concluded that academic self-efficacy only moderately correlates with academic performance and that a causality between the two remains to be established (Honicke and Broadbent, 2016).

Quantitative and qualitative data have rarely been combined to offer a rich portrait of how self-efficacy develops in a specific context (Usher et al., 2019). We responded to this limitation by applying a mixed methods approach to investigate EPSY students' experiences and to examine which factors feature in their accounts of this year. We examined the EPSY implementation in one Norwegian municipality by asking the students how they had experienced their academic, social and personal development. We did so *via* semi-structured interviews combined with a threefold survey measuring their self-efficacy. Recognising that students often experience a decline in academic motivation and self-efficacy during important school transitions (Eccles, 2004), we have given voice to students in the transition between lower and upper secondary school. This

may provide important knowledge about the development and importance of self-efficacy. Our guiding theoretical framework stemmed from Bandura's (1997) social cognitive theory and his assumption that beliefs about one's expectation of mastery are derived from four sources of experience.

Theoretical framework

Self-efficacy refers to a person's belief in and expectation of their own mastery (Bandura, 1997), and is as such an individual's judgement of their capabilities to perform given actions (Schunk, 1991). This expectation of mastery can provide motivation to make an effort and provide increased opportunities for self-regulating learning processes (Zimmerman, 2000). Furthermore, according to Bandura (1986), it can enhance academic learning and achievement. Bandura (2006) argued that efficacy beliefs influence whether people think erratically or strategically, optimistically or pessimistically (p. 309).

Students' self-efficacy beliefs develop as a result of emotions and thoughts (i.e., personal factors), teachers' effective use of classroom structures (i.e., environmental factors) and students' self-regulatory practices (Usher, 2009). According to Bandura (1977), self-efficacy affects an individual's choice of activities, efforts and persistence. For this reason, people with a low sense of efficacy regarding their ability to accomplish a task may avoid it, and those who believe they will master the task will be motivated to prepare for, and put in effort to achieve, the task (Schunk, 1991). Those who feel efficacious will also persist longer when they encounter difficulties than those who have doubt in their capabilities (Schunk, 1991). However, the efficacy belief system is not a global trait, which makes it important to understand under which conditions and circumstances the construct is investigated. People have different interests and differ in the areas in which they cultivate their efficacy, so self-efficacy is a differentiated set of self-beliefs linked to distinct realms of functioning (Bandura, 2006).

Bandura (1977) postulated that four sources of efficacy are crucial for the development and creation of a person's self-efficacy beliefs. Given our application of these sources in the context of a school setting, it is important to note that we followed Bandura (1997) and, for example, Wyatt (2014), who do not see knowledge as a source of self-efficacy in and of itself. The first and most influential source, mastery experience, is the perception of previous success or failure in performing a particular task. According to Bandura (1997), mastery experience is the most powerful source since relevant mastery experiences help raise a person's expectations and increase their motivation to complete similar tasks in the future. A significant number of studies have shown support for Bandura's view on mastery experience and indicated that it is particularly powerful (e.g., Usher and Pajares, 2008). It has

further been found to be necessary for students to develop and preserve their expectations of mastery (Skaalvik and Skaalvik, 2018, p. 197). Once a strong sense of efficacy has developed, failures may not have major impacts and will likely not decrease the established self-efficacy (Bandura, 1986; Schunk, 1991).

The second source, vicarious experience, is derived from observing others perform a task. Thus, in addition to assessing the results of their own actions, people build efficacy beliefs by watching others perform the behaviour they are contemplating (Bandura, 1977). Similar others, such as classmates and peers in the context of this paper, offer the best basis for comparison (Schunk, 1991). When a student observes other comparable students performing a task, it may convey to the observer that they are also able to accomplish the task. However, information that is observed vicariously typically has a weaker effect on self-efficacy than a student's own performance-based information.

The third source of self-efficacy is verbal and social persuasion. This source involves evaluative feedback from others and is based on the assumption that encouragement and praise from others can enhance a person's belief in their capability to perform a given task at a certain level (Bandura, 1977). The effect of appraisal feedback is often mediated by how the person giving the feedback is perceived by the recipient (Bandura, 1997). Verbal persuasion "is likely to be effective when it is received from a highly competent individual who is perceived as an expert in the field" (Palmer, 2011: 580), such as a teacher. For example, if the person is someone a student trusts, encouragement may boost their belief in their academic capabilities (Usher and Pajares, 2008). In a school setting, positive persuasive feedback from teachers or peers, like "you can do this if you really try," may contribute to enhancing students' self-efficacy. However, this increase will be temporary if the subsequent effort turns out poorly (Schunk, 1991). For that reason, Bandura (1997) viewed verbal persuasion as a comparatively weak source.

Physiological and affective responses are the fourth source informing self-efficacy beliefs. This source refers to how people interpret somatic information, such as stress, anxiety and fatigue levels, as an indicator of their personal capabilities (Bandura, 1977). Bodily symptoms that signal anxiety may be interpreted as a lack of skills and therefore lower self-efficacy (Schunk, 1991). People function best when the physiological and emotional arousal is neither too high nor too low (Bandura, 1997). They are often aware of their physiological and affective arousal, which provides indirect information about their ability to deal with challenging situations (Palmer, 2011, p. 580). Bandura (1997) viewed this particular source of efficacy information as the least effective source as it is not reliably diagnostic of one's capability.

When taking into account that self-efficacy is a context- and subject-specific construct that can change in individuals depending on the situation they find themselves in, the contours

of a complex picture quickly become apparent. Bandura (1997) rated mastery experiences as the most powerful source of efficacy information, but mastery experiences can be elusive in complex tasks and situations, such as a school setting, because it is not always easy to identify when one has been successful (Palmer, 2011). When it comes to the other three sources, the literature differs in how they report on each source's strength. From this we read that the three remaining sources operate differently depending on the context (e.g., school subject, grade level, school context, teacher, students' personal traits). The four sources outlined above therefore do not work in isolation: there is a stated need for researchers to "exercise caution when imposing a rigid categorical structure on the sources of self-efficacy, which themselves are complex social cognitive phenomena that are often inextricably linked" (Morris and Usher, 2011, p. 243).

A significant number of studies have shown that a positive student–teacher relationship is important for students' wellbeing (Graham et al., 2016; Zheng, 2022), school engagement (Havik and Westergård, 2020), motivation and goal orientation (Eccles, 1983; Ryan et al., 1994; Deci and Ryan, 2004; Koca, 2016; Lerang et al., 2019), self-esteem (Ryan et al., 1994), learning and academic achievement (Pianta and Walsh, 1996; Pianta, 1999; Hamre and Pianta, 2001; Lerang et al., 2019), and the learning environment (Ertesvåg, 2019; Bachmann et al., 2020, 2022). Accordingly, it is important to bear in mind that self-efficacy is only one part of the puzzle and that teachers play an important role in this context. Numerous studies have reported on students' relationships with their teachers as a key factor in students' well-being, motivation and learning (e.g., Pomeroy, 1999; Hughes and Chen, 2011; Lerang et al., 2019; Zheng, 2022). In effect, the choice and direction of a student's efforts in the classroom depend on whether the student is given adequate skills and positive outcome expectations and whether the student values the outcome (Schunk, 1991). The quality of the relationships between teachers and students may thus be of significant importance for students' learning outcomes and holistic experiences of a school (Federici and Skaalvik, 2013). Close relationships between students and their teachers, with satisfying support from teachers, are shown to provide students' emotive provision and security, leading to effective learning (Zheng, 2022).

Drawing on the data from a three-part questionnaire and interviews with EPSY students, our first impression was that nearly all the students in the study seemed very satisfied with the EPSY when reflecting on their academic, social and personal progression. This begged the question: what makes these students seemingly so satisfied? This paper is our response to Usher et al.'s (2019) call for more research that draws on a combination of quantitative and qualitative data to offer a richer portrait of how self-efficacy develops in a specific context. We posed the following research question:

What do students highlight in their accounts of professional, social and personal development of self-efficacy through an extra preparatory school year?

Our mixed data enabled us to first investigate if and to what extent the students' general self-efficacy, mathematics self-efficacy and Norwegian self-efficacy developed during their EPSY, and next to explore how the EPSY students described and reflected on their changes in self-efficacy and their sources of development.

Methodology

In this study, we investigated the growth of self-efficacy in individuals in an academic setting. We therefore start this section by providing a presentation of the EPSY context drawing on the first and second authors' observations during their visits at the EPSY location (4 days) and their interviews with the teachers. All three teachers working at the school were interviewed individually and in group about the initiative's teaching philosophy, about their methods, how the school days are organised, and about the student groups. We consider these interviews as informative text on the context and vision of the EPSY initiative rather than data. We next describe the data collection process and how we analysed our data using both quantitative Rasch analysis and qualitative thematic analysis.

The normal quantitative approach has been to use a Likert-type response scale to assess each of Bandura's (1997) hypothesised sources of self-efficacy (Usher et al., 2019). However, there are several limitations in a purely quantitative approach, like the difficulties in capturing diverse types of experience or personal, social, situational, and temporal conditions and limitations with the quantitative subscales (Usher et al., 2019). Therefore, Usher et al. (2019) calls for more mixed approaches to show how students interpret and weigh efficacy-relevant information.

Empirical context

From 2017 to 2021, a total of 69 students in the municipality used the opportunity for an EPSY. During this period, the staff had been stable and consisted of three teachers and one school leader who was actively involved and engaged with the students. The teachers at the EPSY were all qualified with several years of teaching experience (from 10 to 23 years). According to the teachers, the most highlighted strategy at the EPSY is to build good relationships with the students. To ensure individual adaptation and follow-up, each cohort was limited to 25 students. The reasons for attending EPSY were psychosocial challenges, periods of absenteeism in lower secondary school

and knowledge gaps. The reasons were not mutually exclusive, but often combined.

The EPSY premises are not reminiscent of a traditional school building. There is a kitchen with a dining area for students and staff, where they can have lunch together and socialise. The premises also have table tennis tables, various group rooms and a large room where the teaching takes place. At the EPSY homepage both professional and social development of the youth, as well as close individual follow-up are highlighted as main aims. In an interview, one of the teachers explained that they were conscious of linking subjects to life, for example, by letting the students cook for each other and arrange social events. All teachers highlighted the importance of students setting goals, both for the year at EPSY and for further schooling, adding that for some participants the mastery related to self-confidence and the psychosocial were prioritised over the academically mastery. For instance, some students had challenges with meeting up, speaking in plenary and relating to others – factors that are important to master to complete upper secondary education. In this way, the students were challenged to take responsibility for both the social and academic aspects of their lives. The teachers emphasised during the interviews that they were sincerely committed to helping the youth become independent and responsible.

The set-up of the EPSY was different from that in the students' lower secondary schools. For example, at the EPSY, they had a flexible rather than a fixed timetable to promote interdisciplinary work on subjects. During interviews, the teachers highlighted the importance of student involvement, the interdisciplinary approach, and flexibility, which allowed the students to spend more time on a topic if needed. Using a theme-based approach enabled the teachers to complement each other and to adapt their teaching to each student. A crucial factor in their success with individual follow-up was their shared responsibility for the students. This was accentuated to create a sense of security and close relationships with each student. The teachers at the extra preparatory school were hired based on their relational skills in addition to their academic skills, and they expected the students to attend school every day, be prepared, be good learning partners for each other, and be involved in their own learning and development as well as daily school life. A stated aim was that the EPSY students were allowed to make mistakes and should be encouraged to challenge themselves in a safe environment in an attempt to experience mastery.

Data collection

The current study was part of a larger research project that evaluated an initiative aimed at reducing dropout in upper secondary school. The data were collected from fall 2019 to spring 2021 and involved 48 students who participated in

FIGURE 1
The selection of the 23 interviews.
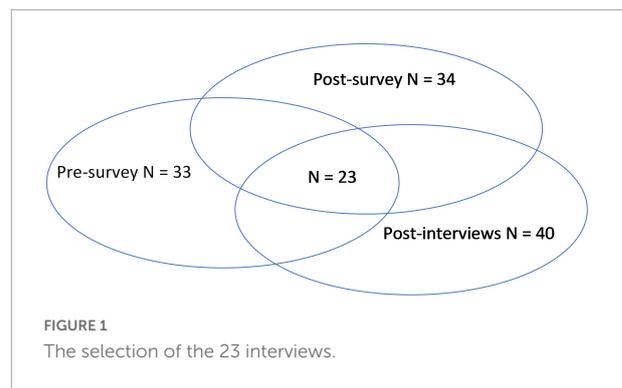
interviews and surveys. Both the interviews and surveys were conducted twice: at the beginning (pre) and the end (post) of the EPSY. In our study, we focused on the students' perspectives regarding the EPSY initiative by drawing on only the interviews at the end of the EPSY but combined it with the data from the pre- and post-surveys. Of the 40 students who participated in the post-interviews, 33 students undertook the pre-survey, 34 completed the post-survey, and 23 students were traceable across these three data points (**Figure 1**). Hence, while using all the collected survey data for the quantitative analyses, we drew on the post-interviews conducted with those 23 traceable students for our qualitative analyses. In this way, we were able to correlate the findings from the students' interviews with their survey responses. The interview data could thus be used to elaborate on and explain the quantitative findings.

Survey

A three-part Likert-scale questionnaire with 29 items was designed to capture the included students' general self-efficacy and their self-efficacy with regard to the school subjects mathematics and Norwegian. These two subjects were chosen because they are taught across all grades in the mandatory part of the Norwegian school system (i.e., grades 1–10, ages 6–16 years). Additionally, poor performance in mathematics is a global issue that also applies to Norway (Lamb et al., 2011). The 10 items on general self-efficacy (GSE) stemmed from a validated Norwegian version of the General Perceived Self-Efficacy Scale (Røysamb et al., 1998) in which the students were asked to respond to statements such as "I can always solve really hard problems if I try hard enough" by selecting an answer from one of the following categories: "Completely wrong," "Quite wrong," "Quite right," or "Completely right." The 10 items on mathematics self-efficacy (MSE) and nine items on Norwegian self-efficacy (NSE) were taken from Hesby Mathé and Elstad's (2020) explorations of students' efforts in social studies, which investigated students' perceived effort, their willingness to participate, and their views on the role of the teacher. All the items, for instance, "I always do my best when engaging with mathematics" (and the same phrasing repeated

in the NSE instrument), could be answered by selecting one of four categories: "Strongly disagree," "Disagree," "Agree," and "Strongly agree." The three-part Likert-scale questionnaire was therefore considered three distinct instruments measuring three different constructs.

Interviews

The semi-structured individual interviews lasted for about 30 minutes and focused on capturing the EPSY students' experiences. Post-interviews covered students experiences with the EPSY. Students were asked about well-being, motivation, professional and social mastery, beliefs about themselves and plans for further schooling. The themes were chosen based on the defined aims of the EPSY (strengthen professional and social competences) and relevant theory (self-efficacy). For example, they were asked "in relation to what you wanted to achieve at EPSY, how do you think it has been?," "can you describe how you master mathematics compared to in lower secondary school, and explain why this has changed," and "are there other things that you have been better at through this school year, describe how and explain why." All the interviews were recorded and transcribed verbatim.

Quantitative analysis

Likert scales comprise ordinal data that cannot be assumed to be linear (Boone et al., 2013), meaning that the spacing between the response categories may not be equal. Simply adding up a student's responses on a Likert scale and using this raw score to denote their level of self-efficacy is thus problematic. Such raw scores tend to clump students around the mean scores and do not adequately contrast the results of more confident students with those of less confident ones (Bond and Fox, 2007).

The Rasch measurement, which is based on an equation developed by George Rasch, converts these ordinal data into linear measures. The strength of the Rasch model is thus that it supports the construction of a genuine interval estimate for the underlying construct, where both the items and the people are measured on the same scale in unit logits, which is the logarithm of the odds of success. This allows comparisons between items, between people, and between items and people by establishing a person's probable answer on an item: the higher the person's estimate, the more self-efficacious the person feels, and the higher the item estimate, the more self-efficacy is needed to endorse it. For this reason, we chose the approach taken by Bjerke and Eriksen (2016) and applied the Rasch rating scale model (RSM) to analyse the quantitative data. We used WINSTEPS 3.81.0 software (Linacre, 2014) to test the compliance of the data with the RSM.

Rasch analysis allows the transformation of ordinal data to an interval scale, provided the data satisfies the conditions of the model (primarily unidimensionality, which requires that the items target aspects that contribute to or are aligned with a single one-dimensional scale). The RSM allows item measures to be estimated based on the responses collected from a sample from the relevant population and places these values on a scale from the lowest to the highest levels of the trait (here, self-efficacy) that the instruments are able to measure (Bond and Fox, 2007). It is therefore important to monitor the unidimensionality using fit statistics by identifying any discrepancies between the expected and observed values for an item. In this way, Rasch analysis can provide evidence regarding the content aspect of validity based on the technical quality of the items (Wolfe and Smith, 2007).

To monitor the data quality, we explored the degree of fit between the data from the mixed sample of pre- and post-test responses ($n = 67$) and the RSM for all three instruments. The unidimensionality condition of the Rasch model held sufficiently well for the data as the mean square (MNSQ) fit statistics (Table 1) showed fit values within acceptable limits for all 29 items across the three instruments, with item 5 in the NSE test possibly overfitting the model. The standardised fit statistics showed no noticeable unpredictability in the data, and the Rasch reliability estimates (which in general underestimate reliability) for the students and items were 0.84 and 0.79 for GSE, 0.87 and 0.92 for MSE and 0.93 and 0.95 for NSE, indicating reproducible measures.

While the ordering of the items (given in the measure column in Table 1) exhibited a hierarchy conforming roughly to our initial ranking of the items [a comparison suggested by Bond (2004)], the portion of the construct between the item easiest to endorse and the item hardest to endorse revealed some significant gaps in the administration of the MSE and NSE tests. Some items were very easy to endorse compared to the others (e.g., items 9 and 10 in the MSE test). However, the GSE test was well covered, without significant measurement gaps between the items (all below the logit of 0.5), indicating a uniform gradation in terms of difficulty (Baghaei, 2008).

The item polarity was good in all three instruments, which showed how the respondents' self-efficacy corresponded with the item difficulty. However, a danger to the generalisability of the instrument is that the items may be interpreted in significantly different manners by different groups who use the instrument (Bond, 2004; Wolfe and Smith, 2007). To check this, differential item functioning analyses were performed to confirm the invariance of the instrument when dividing the sample for the three instruments into two groups: those responding to the pre-test versus those responding to the post-test. No significant differential item functioning was found for any of the items in any of the instruments, and an additional check of the item characteristic curves revealed no "other story." Hence, there was no reason to suspect an additional dimension

TABLE 1 Fit statistics for the mixed sample.

	General				Mathematics				Norwegian		
Item entry	Measure	Outfit MNSQ	Outfit ZSTD	Item entry	Measure	Outfit MNSQ	Outfit ZSTD	Item entry	Measure	Outfit MNSQ	Outfit ZSTD
1	−0.22	1.32	1.72	1	−0.31	1.38	1.74	1	0.14	0.94	−0.23
2	−0.12	0.88	−0.61	2	1.16	0.65	−1.78	2	1.24	1.06	0.41
3	0.56	1.02	0.22	3	0.56	1.27	1.35	3	−0.97	1.12	0.64
4	0.39	1.07	0.48	4	1.48	1.01	0.14	4	−0.74	1.10	0.61
5	−0.22	1.01	0.12	5	0.74	0.93	−0.27	5	1.01	0.45	−4.07
6	−0.75	0.90	−0.51	6	1.42	0.97	−0.03	6	0.42	0.85	−0.81
7	0.98	1.24	1.28	7	0.52	0.80	−1.07	7	1.01	0.95	−0.19
8	−0.02	0.83	−0.94	8	−0.32	0.76	−1.15	8	−0.83	1.23	1.17
9	−0.43	0.67	−2.00	9	−2.16	1.11	0.49	9	−1.28	1.25	0.93
10	−0.17	1.02	0.20	10	−3.07	1.05	0.31				

in any of the instruments. We concluded that all three instruments measured what they were intended to measure.

Qualitative analysis

We analysed the 23 transcribed post-interviews following a stepwise-deductive-inductive approach (Tjora, 2018) with the aim of inductively developing themes across the qualitative data. This method allowed us to develop new ideas from the data by following three steps: (1) empirical close coding, (2) grouping of the empirical codes, and (3) higher order sorting (sorting out the main themes). Next, we discuss the themes in the context of theory.

In step one, two of the authors undertook the empirical close coding (Tjora, 2018) using NVivo qualitative analysis software. This resulted in about 95 codes with names like "EPSY has meant everything to me," "The teachers are supportive and nice," and "Now I dare to speak in front of others." In the next step, we discussed the codes and grouped them according to their thematic relatedness. This led to 10 code groups in which several were overlapping and related. Higher order sorting resulted in four main themes, each of which explained what the students had indicated as important for their changes in self-efficacy: (1) creating a safe and engaging environment, (2) developing an understanding of the requirement for effort, (3) nurturing a collective feeling of not being the only one having difficulties or struggling, and (4) providing tailored academic support. The teachers were identified as the "facilitators" of self-efficacy across all the themes. This was concluded following a theoretically informed exploration of the nuances in each of the four categories using Bandura's four sources of self-efficacy. Halkier (2011) described this as category zooming, here focusing on the teachers' roles as facilitators within each of the four categories. Table 2 shows examples of the coding.

Ethics

There may be several reasons for attending an EPSY (see section "Empirical context"). In consultation with the Norwegian Centre for Research Data (NSD) it was decided neither to ask questions about socioeconomic status and vulnerable experiences (such as bullying, diagnoses and traumatic events), nor to follow up if such experiences were mentioned. Emphasis was placed on producing concrete descriptions of the practice in their previous schools for comparison with their experience of the EPSY. Thus, we do not report in depth on the students' reasoning for attending the EPSY. Approval was provided by the NSD.

Findings

The EPSY initiative was established to prevent students from dropping out of school. In this section, we present the results of our mixed analysis in an attempt to answer the question on what students highlight in their accounts of professional, social and personal development of self-efficacy through an EPSY. We first report on the level of the students' increased self-efficacy, before we present the four factors that were prominent in the EPSY students' accounts by drawing primarily on the qualitative analyses, albeit mixed with our understandings from the quantitative analysis.

Increased self-efficacy

When comparing the pre- and post-test results, all three instruments showed increased self-efficacy in the EPSY students. While comparisons between the pre- and post-test measures were statistically significant at the 0.05 level for the GSE [pre:

TABLE 2 Examples of the codes.

Empirical close codes	Main themes
The teachers were nice. The teachers are very supportive. Learning becomes fun. I was not interested in learning before, but now I have the interest and want to learn.	Creating a safe and engaging environment.
I have gained more faith that I can handle upper secondary school. I have improved my grades in all subjects. This year I have learned that I am really good at mathematics.	Developing an understanding of the requirement for effort.
The teachers share their own experiences, which gives me the feeling that I am not alone in my struggles. The teachers encourage us to share our experiences. Knowing that you are not the only one struggling gives one a sense of security.	Nurturing a collective feeling of not being the only one having difficulties or struggling.
The teachers are very good at adapting to the student's level. The teachers push me to work harder and not give up. The teachers find your good qualities and make them visible to you. The smaller classes give the teachers more time for students compared to primary school. The teachers here see me more. I've been helped to find out what I'm interested in.	Providing tailored academic support

0.71 logits (SD = 1.51); post: 4.56 logits (SD = 2.22); $p = 0.000$] and MSE tests [pre: 1.25 logits (SD = 3.62); post: 2.53 logits (SD = 3.92); $p = 0.031$], no such significant difference was found for the NSE test. This coincided with our qualitative findings: students gave few subject-specific examples in their accounts of gained self-efficacy, with mathematics being an exception. These quantitative and qualitative findings gave a more thorough and detailed understanding of the EPSY students' professional development within mathematics (as compared to Norwegian and other subjects not measured by quantitative instruments). Hence, in what follows, we focus more on GSE and MSE.

The two merged Wright maps in Figure 2 provide the distributions of the post-test results of the students and items positioned at their Andrich threshold for the instruments and reveal significant differences in the EPSY students: the GSE test to the left and the MSE test to the right. The person measures are presented in the centre (each X denotes one student) between the two vertical rulers, which give the measures in logits. The students at the top represent those with the highest self-efficacy scores (as measured in the post-test and anchored to the pre-test distribution), while those on the bottom indicate the lowest self-efficacy scores. Similarly, when examining the outer field of the two merged Wright maps, the items positioned at the top are the statements with which it was harder to agree completely, whereas the ones at the bottom were perceived as easier to agree with completely. The items are positioned at the points of equal probability of the adjacent categories (Bond and Fox, 2007). This means, for example, that the label "Item 4.2" in the MSE distribution represents Item 4 at its second answer category threshold (between "Disagree" and "Agree"). A student with an estimate at this position on the scale would have had a 50% chance of selecting either of the two categories. Since the thresholds are ordered, a student with an estimate above the label "Item 4.2" but below the label "Item 4.3" would most likely have endorsed the category "Agree" on item 4. Note that comparisons between the measures given on the left (GSE) and

right (MSE) sides are meaningless as these measures are not z-standardised (this applies to the means discussed in the next section as well).

When monitoring the items in Figure 2, we searched for patterns and tendencies in our data. Although we also investigated the distribution of the items in the NSE test (this distribution is given for the mixed sample in Table 1), we noted how the distribution of the items in the NSE test confirmed the most striking finding in the MSE test, namely that the items where the teacher was the focus (items 9 and 10 in the MSE test and items 8 and 9 in the NSE test) stood out from the rest. Figure 2 shows how items 9 ("The teacher makes me work harder in mathematics") and 10 ("The teacher has high expectations of me in mathematics") are positioned far below the other items, which reveals how these items are easy to endorse: it is easy to "strongly agree" with these statements (which are worded in exactly the same way for Norwegian in the NSE instrument).

The presence of statistically significant differences in the students' GSE and MSE and the way in which the teacher items in the MSE and NSE tests stood out from the rest are stark findings that merit further qualitative investigations regarding the profiles of these students and the factors that may have contributed to their efficacy ratings. The students' qualitative accounts deepen our understanding of what contributed to this positive development in these individuals during their EPSY.

In the rest of this section, we will share the EPSY students' accounts of increased self-efficacy by focusing on the four themes that were prominent in their stories: creating a safe and engaging school environment, developing an understanding of the requirement for effort, nurturing a collective sense of not being the only one having difficulties or struggling, and providing tailored academic support for students.

We have used direct quotes to illustrate how the students themselves described their experiences of their EPSY. These quotes were selected based on the reflected experiences and

FIGURE 2
Wright maps for post-test GSE (to the left) and post-test MSE (to the right) results.
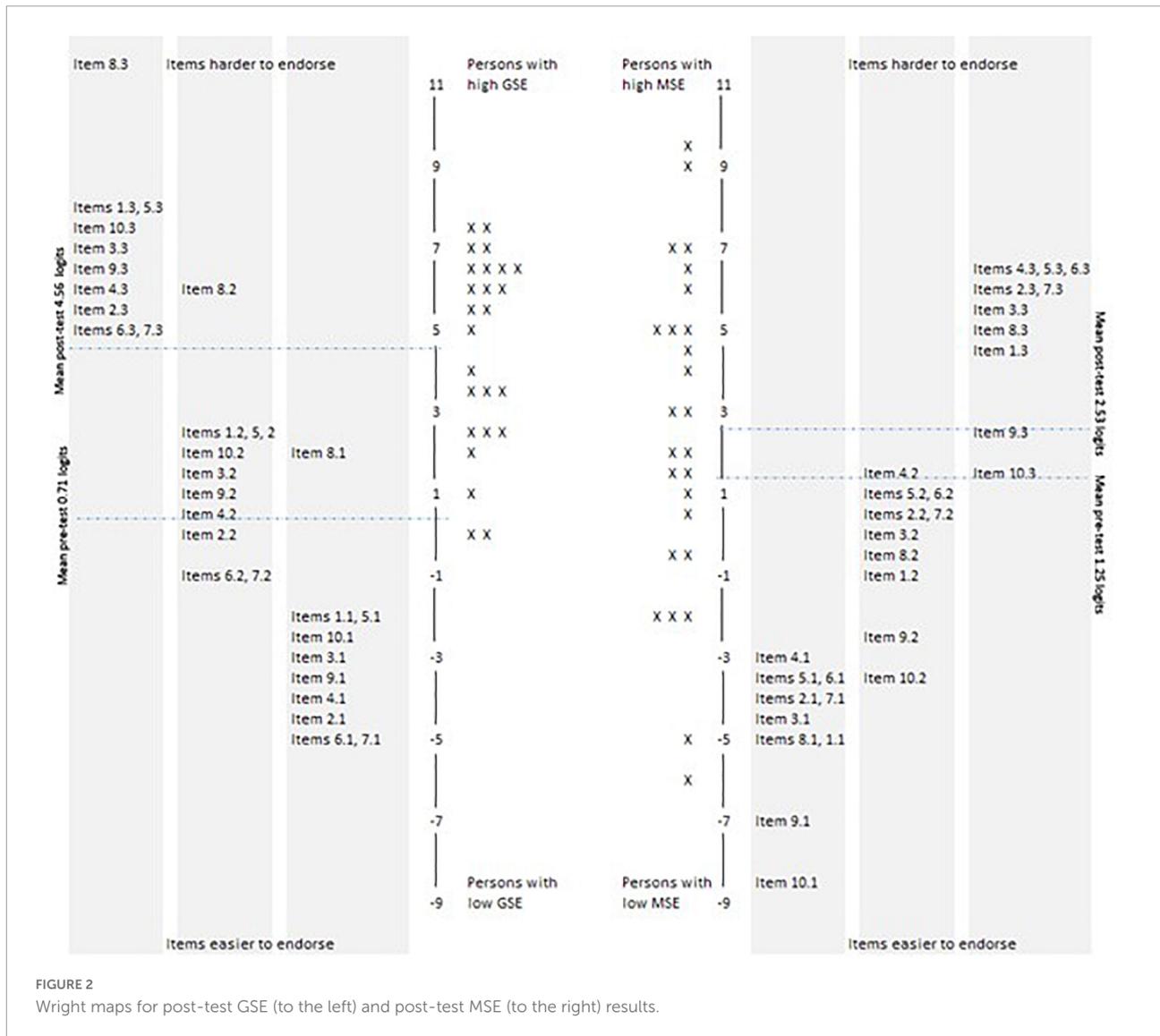
stories that were shared by several students. All the quotes were translated from Norwegian to readable English. The quotes are marked with a number and either F or M to identify whether the source was female or male, respectively.

Creating a safe and engaging school environment

The students reported feeling increased confidence and a newly discovered willingness to participate in classroom activities during their EPSY. The academic and social progress visible in their accounts were related to the way the teachers had created a safe environment with zero tolerance for making fun of others and giving negative responses. Respecting each other and being kind to one another were important. Several students

described the safe environment as something new compared to their previous schooling experiences:

> I can come to school and know that I have someone to be with. And that I do not have to think that right now someone may be sitting there and backbiting me. If I'm having a bad day, I can still go to school because I can explain [this] to the teachers, and they will understand (Student 7F).

The students described the teachers as compassionate, interested and caring and as people they could trust. The teachers showed an interest in the students as "whole" people:

> I feel like they actually care about you. They focus more on you developing than on getting better grades. For example,

if you do not go to school, they will ask after you. They kind of see if you're not quite on top. They notice it and ask what is happening. They look at us as whole people, not only as students (Student 7F).

Most of the students highlighted that a good relationship with the EPSY teachers was important. The teachers were considered safe adults for the students, and the students appreciated the teachers' positive ways of being, as explained by this student:

They always speak in a happy tone; they are always positive and come up with a few jokes while explaining (Student 4M).

While the reference to the teachers was highly present in the students' accounts, they also credited their peers:

They [my peers] are very important in making me come to school now. I feel even more motivated to come to school because I will meet them and work with them on assignments. We help each other, and the teachers too, and that was not always the case in the 10th grade (Student 6M).

The students also appreciated being in a class with fewer students. It made them feel less distracted and more secure, which resulted in many of them daring to speak in front of the class:

Now I actually say something in class. Previously, I could not say a single word in front of the class because I was so insecure about myself (Student 1F).

In sum, the teachers appeared to have succeeded in creating an inclusive and safe learning environment that nurtured the right psychological and affective responses. This in turn helped the students participate actively in the classroom and with their schoolwork.

Developing an understanding of the requirement for effort

Due to their newly understanding of the meaning of school and education, some of the students described a renewed willingness to engage with their work. One student, who had a substantial increase in GSE across the two tests, said:

I have become more motivated to come to school, I have realised how serious and important education is (Student 5M).

As it turned out, this student was no exception: all the students were required to develop a plan at the start of their EPSY that included setting aims for the year and their further schooling. One student referred to his plan as something realistic – something he had started believing in:

Now I kind of have a very good plan. I have become a little wiser than I was in grade nine because now I know that I kind of want to go to school, work and go to training and stuff. I'm somehow thinking about my future now (Student 6M).

Having a plan seemed to influence the students' dedication to school by giving them a long-term perspective of the consequences of making an effort in school. One student described how he had changed to become more motivated:

The teachers helped motivate me to keep trying. They encouraged it. When [they] do that, I get a good feeling and want to keep learning. Learning becomes fun. I was not interested in learning before, but now I have the interest and want to learn. It is because of the teachers. Before, I never gave 100% and did not practice on tests; now I take it seriously, and I think I will continue with it in high school and do my best in all my subjects (Student 12M).

The teachers contributed to an upward positive spiral in which effort promoted learning that in turn enhanced the joy of learning and studying. Learning thus promoted mastery experiences and motivation. Moreover, linked to the newly discovered understanding of the meaning of school was a change in the students' belief in their ability to complete upper secondary education, a change largely credited to the teachers. The students pointed at how the EPSY teachers did not allow them to be "invisible," to "hide" or to "not try," something many felt had been allowed in lower secondary school. In the EPSY, the students told another story; they described how the teachers pushed them:

[The teachers] find the qualities within you, make you more confident in yourself. It does something to you. They change something within you, whether it is small or larger. They make you stronger when I say I'm very tired and want to go home, they say, "come on, try again." They push you to try again and again, until you do it. They do not look at you as a victim – do not say "poor you." They tell you that you are very good. [The teachers] find your qualities, the good ones, and show them to you so you have them in mind (Student 2M).

For many students, the result of this pushing and persuasion was a feeling of overcoming an obstacle that had grown large through their previous schooling. The students described a

change from lower secondary school, where the teachers did not have expectations of them, to the EPSY school, where the teachers looked at them as resourceful people and were focused on both their short- and long-term goals. These goals provided the students with the necessary perspective to understand why it was important to make an effort in school. In addition, the teachers pushed the students and expected something from them while showing the students that they believed in them. The result was an increased motivation to learn.

Nurturing a collective sense of not being the only one having difficulties or struggling

Many referred to their experiences of feeling alone about their challenges in their previous schooling, either in the form of not mastering Norwegian well enough, struggling with their academic demands or facing challenges in the social arena. The students reported how the teachers during their EPSY reduced the feeling of being the only one with "issues" by demonstrating that having problems was not an excuse for not mastering school and life. When the teachers shared their own stories about their challenges and experiences of not mastering life, the students revealed how the community of teachers made it safe for them to be vulnerable:

> The principal shared her own experiences. I get the feeling that it's not just me who has this [issue]. [I] liked that she shared her experiences about being a bit like us (Student 2M).

Student 2's sense of the principal "being a bit like *us*" instead of "a bit like *me*" underlines his feeling of belonging to a community where he no longer felt like the abnormal one. Many of the students mentioned that hearing about the principal, who had faced similar challenges to them as a youth, made them realise that their challenges should not stop them. Several of the students said that they experienced the teaching team and the principal as "whole" people precisely as a result of them showing emotion and sharing their own experiences of not mastering school and life. The students were encouraged to do the same and expressed an understanding of the importance of sharing vulnerabilities:

> I have shared almost everything. Before, I thought I should keep it hidden. Now they know how I am. This is what the teachers focus on a lot. Encouraging you to share to release the weight that you carry with you. Your scars. Everyone has vulnerability (Student 2M).

This practice of sharing resulted in a new insight: having issues may not be such an overwhelming burden. We heard several stories about how important it was that the teachers actually expected something from the students and did not let them be "victims" even if they struggled with challenges such as anxiety, depression or issues at home. The other students and teachers' vicarious experiences made the students conscious that they were not the only ones struggling:

> Knowing that you are not the only one who has things to struggle with, it can feel a little comforting (Student 3M).

In sum, our data revealed how the team of EPSY teachers made significant strides through their "sharing" practice. The teachers made it normal to be vulnerable and to have challenges. Their sharing of their experiences nurtured a collective sense of not being the only one with issues, which resulted in an inclusive environment.

Providing tailored academic support

When asked about academic mastery during the interviews, the majority of the students talked about a sense of general academic improvement during the EPSY. For example:

> I feel I do better in all subjects. Before I got a lot of 1 s and 2 s, now I get more 3 s and 4 s. The teachers explain things easier. This makes it easier to keep up. The teachers are better at listening to us and explain better (Student 12M).

The above quote is representative of how the students talked about their academic improvements. In line with Student 12's report, many indicated that they received more help from their teachers than they were used to. This made them change their views of their ability to do good and manage upper secondary education through experiences of mastery, as the following two students explain:

> Because I've got this year to become more confident in myself, it will increase my chances of not just dropping out. I actually have a greater chance of completing upper secondary school (Student 1F).

> There is quite a big difference between how I was a year ago and how I am now when it comes to my self-confidence (Student 6M).

Both these statements were supported by how students 1 and 6 reported their increased self-efficacy in the threefold questionnaire. Student 2, in particular, had by far the highest reported increase in MSE. However, while most of the students reported an academic improvement in general during the interviews, a few gave subject-specific examples, with mathematics being an exception. This reaffirms the distinction between the significant development shown by the MSE test and

the non-significant development in the NSE test. In the post-interviews, the same story seemed to repeat itself: during lower secondary school, the student had given up on mathematics, but their EPSY had turned that downward trend into something more positive:

> I did not know I was that good at maths. I have learned that I know things that others do not know. We have been given exciting assignments. It has been very good. The teachers push me because I cannot always be in my comfort zone. I have to challenge myself (Student 9F).

> I have always struggled with mathematics in lower secondary school you were looked at in a different way compared to here. [Here] you get adapted teaching and get time with the teachers. My concentration has changed, I remember more (Student 10F).

While both these quotes demonstrate a positive outlook, comparing them to the positioning of students 9 and 10 in the MSE post-test (see **Figure 2**) helps reveal how they differ: student 9 reported one of the top three MSE scores while Student 10 had the second lowest. Knowing this, a rereading of their statements gives a sense of how student 9 confirmed that she was very good at mathematics. She set herself above the others ("I know things that others do not know") when talking about how she pushed herself. In contrast, student 10's account revealed how she was still struggling with mathematics but noted how her improved concentration had enabled her to remember more. Despite their differences, one issue was present in both statements: the role of the teacher. The close teacher monitoring was further elaborated on in Student 11's account:

> The teachers go through the tasks first and let us work on the tasks independently and then they go around. They help you with what you need. Those who need a lot of help, teachers spend more time with (Student 11F).

Student 11, who was one of the students who reported the greatest increase in MSE scores from the pre- to the post-test, portrayed the teachers as being highly present and available. Moreover, the students talked about how the teachers had persuaded them to believe in their abilities while simultaneously encouraging them to stay in their productive struggles, thereby creating new mastery experiences. Student 12 shared how he had regained his faith in his ability to master mathematics:

> Here [at the EPSY school], the teachers show you that you can, and they help you understand that you actually can. They say: "You have it in your head." I myself almost gave

up on maths. [I] achieved 1 in lower secondary school [you need 2 to pass]. I was going to try to get a better grade here, but I did not expect to master maths. Often, I would give up when I was working on assignments, but [here] the teachers talked to me, explained. The teacher said that even if you do not think you can do it, you must try harder, do not give up. I did it, then I made it happen. I got a good feeling and wanted to keep learning (Student 12M).

The teachers encouraged the students to keep trying until they had mastered the tasks. This verbal persuasion resulted in a feeling of mastery in Student 12 as well as a new willingness and motivation to try even when encountering adversity. One of the students who had mastered mathematics (he reported one of the highest MSE scores in the post-test) reflected on the outcome of the EPSY as having increased students' confidence and self-efficacy.

> ... in my experience, many of the students are not so strong in maths, but given how the maths teaching is given, you can see that the kids are more confident in their abilities to try doing the tasks and score high (Student 8M).

In summary, the students described the multiple ways in which the EPSY teaching was tailored to their needs. Many of the students reported periods of school absenteeism in their previous schooling, which for many resulted in knowledge gaps. To them, it was important that the EPSY teachers acknowledged these knowledge gaps and did not dismiss the associated challenges.

Discussion

Self-efficacy is believed to be a critical factor for students' motivation and achievement (Bandura, 1997; Usher and Pajares, 2008; Usher et al., 2019). In this study, we chose a mixed methods approach and investigated what students highlight in their accounts of their professional, social and personal development of self-efficacy through their EPSY.

Our findings showed that the students completed the extra school year with significantly higher GSE and MSE and improved, but not significant, NSE development. When examining the students' accounts of the four factors that contributed to their development, it was apparent that the teachers were always present, either as the facilitators of the sources of self-efficacy in the students (teachers as source facilitators) or by playing a crucial role as the sources (teachers as source performers).

A significant number of studies have shown that a positive student–teacher relationship is important for students' wellbeing (Graham et al., 2016; Zheng, 2022),

school engagement (Havik and Westergård, 2020), motivation and goal orientation (Eccles, 1983; Ryan et al., 1994; Deci and Ryan, 2004; Koca, 2016; Lerang et al., 2019), self-esteem (Ryan et al., 1994), and learning and academic achievement (Pianta and Walsh, 1996; Pianta, 1999; Hamre and Pianta, 2001; Lerang et al., 2019). One study investigated the effects of the quality of the student–teacher relationship and classroom peer relatedness and their joint influence on academic self-efficacy (Hughes and Chen, 2011). The study did not reveal any effects except that the students' relative status within the peer group/classroom predicted their academic self-efficacy. Notwithstanding, because of the impact of teachers on peer relationships, the study referred to the teacher as "the primary architect of the classroom context" and used the metaphor of the teacher as an "invisible hand" in the classroom. Regardless of this, to our knowledge, few studies have explored the role of the teacher in developing students' self-efficacy.

Teachers as source facilitators

The ESPY students talked about their teachers as being highly present, available and patient – characteristics that resulted in a respectful community in which the students felt safe enough to relax, be themselves and participate in an active way in their classes. By implementing initiatives aimed at lowering the competitive orientation of the classroom, as discussed in Usher and Pajares (2008, p. 789), the teachers and students in this environment developed close relationships that increased the students' self-efficacy. The teachers' facilitation and the EPSY initiative itself enabled the students to draw on *physiological and affective responses* that helped them participate more actively and with more confidence. This was made possible by the way the teachers approached the students. The resultant safe and secure environment lowered the students' stress and anxiety and contributed positively to the development of their self-efficacy and motivation to attend school. Other studies have found emotional arousal to be an important predictive source of students' self-efficacy in mathematics (e.g., Usher, 2009; Phan, 2012; Usher et al., 2019). This was confirmed in our study, where the students developed significantly higher GSE and MSE during their EPSY and highlighted that a safe, warm and supportive environment was important for their learning and growth.

This empowering environment, in which the students felt safe to share each other's challenges in school and life, was also influenced by the principal and teachers' sharing of their personal experiences. This has been described in other studies (Hamre and Pianta, 2005; Koca, 2016; Usher et al., 2019; Zheng, 2022), in which the students detailed the high-quality relationships between them and the teachers and how they perceived their interactions with the teachers to

be supportive and motivating. This also made it easier for them to open up and take what Koca (2016) identified as intellectual risks.

When relating to their teachers' stories and observing their peers' experiences, the EPSY students nurtured a collective sense of not being the only one to be vulnerable or to have challenges. It is well known that seeing and observing significant others mastering challenges, may be important in the formation of self-efficacy (Phan, 2012; Usher et al., 2019). Our analysis thus revealed how different *vicarious experiences* were an important source of increased self-efficacy among the students during their EPSY and made them feel more efficacious and included.

In this study, we found that the teachers' goal-setting interventions helped each student understand why it was important for them to make an effort in school, which increased the students' motivation and engagement in learning. The students were encouraged to actively participate in setting their personal goals for the extra school year and their future education rather than having their goals imposed by others. This introduces the concepts of self-regulation and self-regulated learners. Self-regulation refers to the degree to which students are metacognitively, motivationally and behaviourally active in their academic learning (Schunk and Ertmer, 2000; Zimmerman, 2000) and where commitment, control and confidence interact (Hattie and Timperley, 2007, p. 93). Self-directed learning also includes the self-regulation of motivation, the learning environment and social support for self-directedness (Zimmerman et al., 1992: 664). Schunk and Ertmer (2000) suggested that students' self-regulatory competence can be enhanced through systematic interventions that are designed to teach skills and raise students' self-efficacy for learning, like when the EPSY students were encouraged to formulate goals. Their self-set goals heightened the students' awareness of the importance of school, motivated the students to learn and increased their academic engagement. In sum, the self-set goals contributed to the students' positive learning experiences. Thus, the teachers' goal-setting interventions facilitated mastery experiences of learning. As such, goal setting can be seen as a self-efficacy-enhancing intervention (Schunk and Ertmer, 2000).

The teachers encouraging the students to engage in goal setting can be related to Bandura's (1997) source of verbal and social persuasion. In their paper, Usher and Pajares (2008) emphasised that evaluative feedback from others is a critical component of this source. In our study, the students' individual goals were actively used by the teachers to guide the students socially and academically. Our finding is consistent with research reporting the positive relationships between self-regulated learning and academic achievement (Greene and Azevedo, 2007; Zimmerman and Moylan, 2009; Abar and Loken, 2010; Efklides, 2011;

Winne, 2011; Mega et al., 2014) and between proximal goal setting and heightened motivation and self-efficacy (Bandura and Schunk, 1981).

Teachers as source performers

Verbal persuasion is pivotal to EPSY students' self-efficacy. We found that the teachers played a central role in convincing the students that they could achieve their goals and that they belonged. By encouraging the students to challenge themselves, to talk in front of their class and to not give up when faced with difficult tasks, the teachers contributed to the students' engagement in and mastering of the tasks they had previously not thought they could. The source of verbal persuasion was found to be effective and led to an increased expectation of mastery; however, it was important that it be adapted to what the students could achieve (Stipek, 2002; Bong and Skaalvik, 2003). As a result of this to-the-point and finely tuned verbal persuasion, the students' enhanced self-efficacy fostered new mastery experiences in these individuals. The teachers were highly supportive: they believed in the students and expected them to achieve their goals without giving up. The teachers' *social and verbal persuasion* was thus identified as an important contributor to the ESPY students' increased self-efficacy and was made possible because the teachers knew the students well, both on academic and personal levels, and understood the individual goals the students had set for themselves. The source of verbal and social persuasion was therefore effective because it was performed by the teachers at a realistic level. The importance of what messages and expectations the teachers communicate to their students has been confirmed in earlier research, which showed that students interpret their teachers' evaluations in broader ways, namely, as an indication of their abilities, talents and prospects (Usher et al., 2019). The EPSY teachers managed to build a relationship of trust with their students, and through this they were able to encourage, support and persuade the students at the right level.

The EPSY students' frequent accounts of their mastery experiences strengthen the findings of others (Bandura, 1997; Usher and Pajares, 2008; Morris et al., 2016) who have advocated mastery experience as the strongest source of self-efficacy beliefs. However, as pointed out by Palmer (2011), we suggest that increased self-efficacy following mastery was not the direct outcome of mastery experiences in isolation but may be derived from several interacting sources that together provide a sense of mastery. This statement is supported by how the teachers featured in the students' accounts across the sources. We therefore argue that it is crucial to cultivate all four sources to create a positive spiral of motivation, learning effort, the feeling of mastery and increased self-efficacy. Students with increased self-efficacy will spend more

effort on their tasks and be more persevering and resilient when faced with obstacles (Phan, 2012). Similar to Usher (2009), the students stated that when they viewed themselves as capable of mastering their school subjects, they tended to set higher learning goals and invested more in their learning activities. The teachers played an active role in making the students believe that they could solve the tasks they were given and persuading them to not give up. The students that previously had a tendency to give up due to low expectations thus succeeded. According to Bandura (1997), expectations of personal mastery (self-efficacy) and success influence the effort an individual will put into a task. Students with low self-efficacy will likely exert low effort or give up when confronted with obstacles, while students with high self-efficacy are likely to put in efficient effort that may produce successful outcomes. Bandura (1997) argued that mastery experiences prove particularly powerful when individuals overcome obstacles or succeed in challenging tasks. Our findings indicate that the amount of effort the students put in to accomplish a task was aligned with the students' ability levels, so they could ascribe their mastery to their own efforts. This would have contributed positively to their efficacy beliefs, which may not have been the case had their success been ascribed to the help of others.

Concluding remarks

Our results underscore that when studying students' self-efficacy and its sources, learning and learning processes cannot be seen in isolation from the context. We would therefore like to conclude by bringing teaching to the fore as the central source of students' self-efficacy. Hughes and Chen (2011) used the metaphor of teachers as the primary architects of the classroom context. We find this important in that education is not simply about making students learn or about facilitating learning (Biesta, 2015, 2020; Bachmann et al., 2022). Education needs a purpose, and the question of the purpose is undoubtedly a multidimensional one. Biesta (2010) suggested systemising the purpose of education into the domains of qualification, socialisation and subjectification. These three domains of educational purpose make sense as an important framework in any classroom context. The EPSY students did not experience increased self-efficacy simply by having a good time with their teachers and peers. The students focused on the purpose of their EPSY, which had been developed in collaboration with their teachers. As a result, many of the students explained that they felt more qualified to continue with their upper secondary school education after their EPSY. Different students focused on different purposes, depending on what were their main challenges. The teachers, in their capacities as source facilitators and source performers, helped and supported the students to work with their individual purposes in mind,

both within the domains of qualification and socialisation. However, these purposes could not have been achieved without the initiative and responsibility of each student. By building positive and trustful relationships with their students, the teachers managed to activate the students and helped them take responsibility. From the students' points of view, the teachers seemed to build a context where the educational purposes were present, viewable, sensible and reachable for the students – and important for nurturing the students' self-efficacy. We would like to end this paper with three takeaway messages. First, no matter how demanding, the ways of working with young adolescents that featured in the EPSY students' accounts are no less than formidable. The ESPY students reported their sense of self-acceptance and feeling of belonging, on being forward-looking and able to portray their future selves because they were mastering their academic disciplines. We assert that closer investigations are warranted into which of these teacher characteristics and teacher actions could be applicable in "normal" school settings.

Second, we argue that an extra preparatory school year might be a successful effort to prevent dropout, which is a major problem first and foremost for the individual but also for the society. The students at the EPSY were defined as at risk students, meaning there were reasons to believe they would drop out of school. For most of them, school had lost its purpose for various reasons. Therefore, more of the same, an extra school year, was not the solution for most of them. However, as our quantitative analysis revealed, we found that the EPSY resulted in a gained self-efficacy strengthening the students' beliefs in themselves and provided them with a good basis for further education. At the same time, our qualitative analysis showed which elements the students emphasised as important for their school well-being and their self-efficacy. Most importantly, the EPSY year contributed in developing an educational purpose in these students.

Third, we would like to highlight the methodological contribution that this study offers in that it combined quantitative and qualitative data to analyse the students' self-efficacy: the qualitative data allowed for a richer understanding of the increased self-efficacy we found in the quantitative data. We hope this contribution will inspire more researchers to apply a mixed methods approach in future studies of similar contexts.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving human participants were reviewed and approved by the Norwegian Centre for Research Data. Project no. 579256. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

Author contributions

TH and KB designed the study and had the main responsibility in analysing the qualitative data. TH was the leader of the project. TH and KB collected the data and analysed them together with AB. AB had the main responsibility in analysing the quantitative data. All authors contributed substantially with writing the manuscript and contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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