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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