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RESEARCH ARTICLE



Biographical aspects of self-regulated learning during repeatedly failing in upper-secondary exit examination

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ABSTRACT

The exit examination from upper-secondary school represents an essential part of the educational trajectory. However, the transition to the labour market or higher education can be complicated by failure. The qualitative study deals with repeatedly unsuccessful students who have struggled to pass the Czech exit exam called the Matura examination. The research focused on how students approach exam attempts in terms of preparation and their reflection on the impact of failing. The study uses the self-regulated learning model to understand these aspects. The data used in this study consisted of 44 biographical narrative interviews with 27 informants aged 18 to 21 years, followed two years after their first attempt at the exit examination. Results show that students adopt ineffective learning and motivational strategies during the preparation phase before the exam. However, after the second attempt failure, which is associated with social pressure and negative emotions such as shame, they tend to change the way of preparation.

KEYWORDS

Exit exam;
upper-secondary schools;
failure; self-regulated
learning

Introduction

Finishing upper-secondary education represents an essential event in an individual's life and a transition in emerging adults' trajectories. Receiving an upper-secondary diploma allows graduates to continue studying at a higher education level or to find a qualified job. In the Czech Republic, the exam is designed as a standards-based exam that covers the whole upper secondary school curriculum. The examination content is designed by an external organisation (CERMAT), and students should study the strategies for passing the tests. Failure at the exit examination can be a significant negative turning point within the life course of examinees (Bersani and Chappie 2007). Both biography and the life course organise the social integration and socialisation of individuals throughout the changes in their life span. In contrast, the life course points to an 'institutionalised construction of (culturally defined) patterns of 'female' or 'male' (standard) lives; the biography can be regarded as the

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'old life', i.e. the subjective meaning-making about one's life course' (Stauber and Ule 2015, para. 1).

This study, therefore, uses the biographical perspective and investigates the narrated reflection of examinees through their told life. Biographical learning can be used to explore learning within transitions (Hallqvist *et al.* 2012, Thunborg and Bron 2018). Moreover, the exit examination demands examinees' motivation and self-regulation so that the biographical learning framework will be combined in this study with self-regulated learning.

Therefore, the research question focuses on how the repeatedly unsuccessful examinees reflect biographically on their failure during the attempts to succeed in the state part of the exit examination. The research question is based on broader research focused on the life pathways of students who fail to pass the upper secondary school leaving examination. The project aims to understand why students experience repeated failure and how they cope with dropping out of school or passing the exam. As the results show, repeated failure may be influenced by a maladaptive preparation strategy for the exit examination. However, a second failure significantly impacts professional and academic trajectories or students' self-concept. Therefore, students try to change their preparation strategy and learn biographically from failure.

Upper Secondary School Exit examination and self-regulated learning

Upper Secondary School Exit Examinations (USSEE) play a crucial role in many educational systems, as only passing the USSEE typically allows students to graduate and receive a diploma. This diploma serves as a credential verifying the completion of secondary education. Earning a diploma is necessary for further education and career opportunities, as it demonstrates foundational knowledge and skills required for university admissions and many jobs. However, failing the HSEE can present challenges. Students who do not pass may need to retake the exam or pursue alternative pathways to graduate, potentially delaying their entry into higher education or the workforce.

USSEE was implemented in the educational system to verify that graduating students had mastered the high school curriculum (Ou 2010). The expectations of implementing USSEE into the educational system relate to improving student performance and promoting more substantial secondary school educational standards and certification (Holme *et al.* 2010). As (Bishop 2005) asserts, this examination system is designed to fulfil specific goals. Firstly, exam requirements induce teachers to set high standards, so teachers adapt their curricula in response to the exam's requirements (Reardon *et al.* 2010). Secondly, USSEE motivates students 'to learn what is being taught, recognise and reward them when they do' (Bishop 2005, p. 261). Thirdly, the examination process allows students to sort across different post-secondary programs and employment options.

Curriculum-based exit exams are organised into disciplined and cover upper-secondary education curriculum (El-Hassan *et al.* 2021). For instance, subjects such as mathematics, English, science, and geography are represented by school subjects. Additionally, vocational schools' curriculum is represented by various subjects depending on the field of study (trades, technology, health). USSEE can be divided into three categories: a minimum-competency exit exam focused on basic skills, a

standards-based exam based on state-defined standards, and an end-of-course exam after finishing coursework (Ou 2010).

The Czech USSEE, called the Matura examination, can be located in the standards-based category and consists of a common and a profile part. For the common part, two examinations are compulsory: one must be in the Czech language and one in Mathematics or a foreign language. The profile part of the Matura examination is the responsibility of the principals of the individual schools, depending on the specific field of study. Students may choose between two or three subjects; the school principals decide the number of subjects (Decree No. 177/2009 Coll n.d.). Each examinee has a maximum of five attempts and five years from the first attempt to succeed in the examination, so it is up to the examinee to decide on which of the terms they want to sit the exam. Usually, two terms are set for the common part of the examination in one calendar year. The first term is usually held in May; the second is usually held in September of that calendar year (CERMAT n.d.). Since 2011, when the common part of the exit examination was introduced, the failure rate for the common and profile parts has gradually increased, with some fluctuations.

There is clear evidence that exit exams influence the biographies of students in various ways. Although the effects of exit examinations are unclear, there are two different expectations. The first highlights USSEE requirements as incentives for students to learn more before graduation and for schools to provide better instruction. On the other hand, the second perspective points out that HSSE creates barriers and supports inequalities (Reardon *et al.* 2010). Based on research conducted by Jürges and Schneider (2010), USSEE is negatively associated with negative student attitudes such as anxiety, higher achievement pressure or less motivation.

The exit examination requirements also hurt students with low ability or socioeconomic status (Hemelt and Marcotte 2013). Students who fail the exam feel less efficacious or more dissuaded from school (Benner 2013). Kruger *et al.* (2016) point out that failing could adversely affect academic motivation because failure could enhance or diminish student motivation considering individual characteristics. Moreover, repeated failures can negatively affect student effort, emotional well-being, goals or self-perception.

The USSEE requires long-term, systematic, independent student preparation focused on multiple disciplines. To pass this exam, students must be aware of their goals and motivation, which is a process deeply connected with the learning process (Pintrich and Schunk 2002, Schunk and Greene, 2017). Thus, two dimensions of the individual preparation process are distinguished. The first dimension focuses on motivation and motivational strategies (Ilishkina *et al.* 2022), and the second relates to self-regulated learning (SRL) (Zimmerman 1990, Panadero and Alonso-Tapia 2014). So, motivational strategies and self-regulated learning are crucial for passing the Matura exam. The research results show evidence of the relationship between the level of motivation and self-regulated learning and student achievement (Dent and Koenka 2016, Dörrenbächer and Perels 2016). According to Richardson *et al.* (2012), difficulties with academic tasks can be accelerated by the student's inability to control the learning process independently.

Students' preparation for exit exams and reflection on their failure can be studied through theoretical models of self-regulated learning that allow us to understand the causes of repeated failure, student strategies and their reactions to failure (Krishnan *et al.* 2019). Considering the principles of the upper-secondary school examination, Zimmerman's

cyclical model of SRL was used. The SRL model has three phases (Zimmerman 2000). The forethought phase is associated with analysing goals, setting goals and planning the strategies to achieve the task. Also, self-motivation beliefs such as self-efficacy, outcome expectations, task value, interest and goal orientation influence the phase preparation (Panadero and Alonso-Tapia 2014). The second phase relates to performance. Two specific processes during this phase are self-observation and self-control (Zimmerman and Moylan 2009). After the performance, the self-reflection phase occurs and has two dimensions (Zimmerman 2011). The first dimension relates to self-judgement when students assess their work and interpret reasons for success or failure. The second dimension relates to reactions that can be affective or cognitive, and adaptive or defensive decision about future performance is included (Zimmerman and Campillo 2003). Causal attributions are a critical aspect of the self-reflection phase. Graham (2020) points out that attributions always follow an outcome that can be interpreted as a success or failure. So, there is a theoretical estimation that exit examination failure is associated with students' poor preparation during the forethought phase and defensive decisions leading to another failure. However, the question is how students interpret their failure and try to change preparation strategies to succeed.

Methodology

This study is part of a broader project whose main objectives were to gain in-depth insights into the failure in the exit examination and its consequences for the future life pathways of the students concerned. The dataset for this study consisted of 44 biographical narrative interview transcripts from 27 informants who had at least twice failed the state part of the Matura examination and whose first attempt was in 2019 or 2020. The informants were 18–21 years old, and their life courses were followed for two years. The biographical narrative interviews were based on the biographical narrative interview method (Schütze, 1992, Wengraf, 2001, Gobo et al., 2004, Benjamin et al., 2023). The interview scheme used in this study was in line with conceptualisation: 1. an initial narrative assignment, 2. internal narrative questions based only on the informant's narrative response to the initial narrative assignment, 3. external narrative questions (pre-prepared questions, semi-structured interview type). The main research question for this study's analysis was formulated as follows: How are the repeatedly unsuccessful examinees reflecting on their failure during the attempts to succeed in the state part of the exit examination? The questions concerned the evolution of their approach to preparation, their motivations to continue, and their reflection throughout the time of the attempts. Data analysis started with deductive coding to identify three phases of the SRL process of Panadero and Alonso-Tapia (2014). As a result of deductive coding, we could identify all three phases of the model in the biographical narratives (forethought, performance, and self-reflection). The second step constituted inductive coding and aimed to obtain a deeper understanding of biographical aspects connected to those categories. The biographical perspective to research 'deals with people's subjectivity' ((Moyano Dávila and Ortiz Ruiz, 2018), p. 11) and enables researchers to access individuals' personal views on themselves, their lives, others, and the world. It aims to understand the subject's life story and interpretations.

The ethical dimension of the research was addressed in several ways. Firstly, all participants were over 18 years old and provided written informed consent, which included information about the research and their rights as participants. They were informed about the research and its goals before the first interview and were free to determine their level of participation during the interviews. Secondly, transcripts of the interviews and participant information were anonymised and stored on a secure server. The interview recordings were deleted. The data was used solely for the purposes of this research, and only researchers from this project had access to it.

Results

Empirical data suggests a connection between forethought phases and self-reflection phases. Two distinct stages can be identified based on how students approach their failures, reflect on the causes, and choose preparation strategies for their next attempt. The first stage starts with reflecting on the initial failure during the regular exam term, continues with preparation for the retake, and concludes with reflecting on the repeated failure. The second stage is characterised by a shift in preparation and interpretation of failure, leading to a subsequent attempt at correction.

Repeated failure and maladaptive strategies of preparation

Many students experience their first academic failure after failing the regular attempt of the upper-secondary exit exam. This study focused on students who failed one of the required subjects in the state-administered part of the exam. These students must retake the failed subject to receive their diploma. According to Graham (2020), students may attribute the cause of their exam failure to external or internal factors. When attributing the cause externally, students often perceive a lack of external support as the reason. For example, student Daniela blames insufficient support from the school in preparing for the exam:

‘But I don’t want to stand up for myself, but if I was the only one who couldn’t do it, then it’s me. But because there are so many of us, it’s an image of the school.’ (student Daniela)

Thus, failure is not associated with the lack of one’s abilities or strategy of preparation, but it is caused by the influence of the external environment such as insufficient support from teachers and school, environmental conditions, or difficulty of the test.

On the other hand, the internal cause of failure relates to a lack of motivation and effort during the preparation phase that negatively affects the learning process. As student Dan points out, he preferred leisure activities to the exam itself:

‘I had time, I went out with my friends, the worst thing was to get over it, just sit down and start working and I always set up my computer, pen, paper, I was looking at books, I started cooking, I went out, I went somewhere on my bike, so probably not, I was more lazy, just lazy.’ (student Dan)

From the point of view of the SRL model of learning, this excerpt from the narrative shows deficits in the forethought phase, because the student is not able to do strategic planning as well as to set goals for preparation (Zimmerman and Moylan 2009).

Although the causes of failure can be perceived in two ways, it is evident that students understand their own failure as something random that can happen at any time and does not indicate their stable abilities. Thus, the cause of failure is seen as unstable, so it is reflected as random rather than being indicative of a student's enduring characteristics (Graham 2020). However, this tendency leads to the assumption that there is no need to pay attention to preparation for another attempt of exam, as student Dalimil points out:

'But I thought to myself that even simply bigger brains like me, bigger brains, bigger intelligences than me, even smarter people than me did it the second time, so I thought to myself that I can do it the second time, let me rest. It'll just be, well, at least now I've gotten rid of the poisons from the other subjects and I can fully concentrate on just those two things, so it'll be easier.' (student Dalimil)

Although exam failure is a negative experience for students, it is evident that the way of coping with an adverse situation is mainly based on a preference for comfort, backwardness, passivity and disinterest (Rijavec and Brdar 1997). This tendency is also identified during preparation for the exam's second attempt.

This second attempt takes place after approximately three months and is a critical moment that affects the individual's further professional and educational trajectory. If the student succeeds in the given term, he can still be accepted to study at the university. In case of failure, the student falls to the completed basic education level and loses the student status. The third attempt will occur at the end of the following academic year. For many students, this is a decisive moment when they are confronted with the consequences of their failure, as Blanka points out:

'And I simply said that I don't know. Because at that moment you really don't know anything. And not just like for you, but at that moment like... At 19? At the age of nineteen, something like this comes to you for the first time, and you say to yourself: 'I don't know.' Because your parents have handled everything until now. And this is the first moment when you realise that it's actually up to you. You don't know what to do.' (student Blanka)

As can be noticed from the narration, failure after the second attempt represents a turning point that has severe consequences for the individual's further trajectory. From the perception of the situation until this time, students relied on their parents so they did not have to make crucial decisions. The school also enabled them to pass exams without significant complications. So, this failure can be the first experience associated with strong negative emotions, responsibility, and fear of the future, which can also impact further study or professional steps.

The experience of failure is also closely linked to social pressure, where obtaining a diploma is understood as an important step for better employment on the labour market and entry to university, as mentioned by Berenika:

'The second attempt, when I got home, I also received a statement from the director, just like an email - 'you failed'. And at that moment I was like completely bad about it... Not just in the way that you blame yourself, because you seem to blame yourself enough that you couldn't handle it. Because the whole society seems to be pushed into this 'high school graduation is easy, everyone can graduate!' (student Berenika)

Social pressure can exacerbate negative feelings such as remorse or anxiety during the self-reflective phase. Social pressure is based on the assumption that a diploma from high school is important for life quality. The closest social environment can strengthen negative feelings or, on the contrary, support the student. In managing this situation, the closest social environment of the student plays an important role. Especially in a family environment, support can make it easier to cope with the situation and navigate through other options, as Dara demonstrates:

‘After the first attempt, I didn’t know what to do, where to do it, what was going to happen, what wasn’t going to happen, so I actually left school after the exam to visit my mum at her work. She just picked me up, put me in the car and she drove back to the school. So teachers explained to us how it would be like the one in September after that, the second attempt, all these things regarding the matura exam.’ (student Dara)

Support can take the form of emotional support or instrumental support when parents help with finding out information, providing further guidance, or even trying to find a job offer. On the contrary, parents can also be a source of tension, because they blame the student for his or her failure.

‘And then it was like, mom: ‘Well, it has to come out the third time, but it’s just a pity that you don’t have it, right?’ Now it’s high stakes because the third time is like the last option.’ (student Blanka)

However, the social environment that influences the student is not only made up of the family. We can also distinguish other family relatives (e.g. grandparents), friends, and especially partners who have a supporting role as so-called significant others. This can lead to conflicting reactions, where there is some pressure from the family, while the partner provides support.

Failure in the second attempt also relates to practical issues such as loss of student status, registration to the labour office, or looking for a job to pay taxes.

‘I suddenly didn’t know what to do next, I thought to myself that I just didn’t give it a second time, after all everyone will perceive me as... jeez he’s the one who did it for the third time, I just felt like a person who is basically stupid, I thought to myself that therefore I don’t have it or I don’t know it. Well, the taxes came at me, so I had to start working.’ (student Daniel)

However, finding a job is complicated because students do not have an upper-secondary diploma. They must therefore look for job positions designed for people with basic education. This trend further strengthens the negative self-concept, especially in comparison with peers who have successfully passed the Maturita exam and study university. In this phase, there is an evident transformation of causal attributions of student’s failure. Students tend to explain the cause of failure because of their insufficient abilities.

The effort to change strategies of self-regulated learning

The basic prerequisite for changing the student’s perspective is the admission that the student did not pay enough attention to the preparation for the exit exam. The

meaning of failure is no longer belittled by the fact that it was only a certain coincidence. Realising the underestimation of preparation is illustrated by Dalimil:

'I don't know if it was the teacher, everyone always makes excuses. I think it was me, I didn't take it in somehow, I don't have the cells for it...I didn't really give it much thought, I know, I learned very little.... I say, I did it myself'. (student Damil)

The self-reflection phase with acceptance of responsibility and adaptive decision is a key prerequisite for change in preparation for the next attempt. Thus adaptive response consists of a change of strategy with a clear goal setting, as evidenced by student Daniela:

'Well, I actually started learning through tutoring. And actually, when I started tutoring, then at home I did the didactics test on my own. So actually with the tutoring... And for the third one actually, I actually already had the last exam, I already knew what it entailed and what it would be about'. (student Daniela)

Higher motivation is evident in the students' efforts to find new forms of preparation that would enable them to pass the exam in the next attempt. A typical example of a new strategy is the use of tutoring, which is conducted by a lecturer or someone from the student's close social environment. Tutoring is a variant in which the student uses the support of an external tutor, with whom he focuses on problematic topics. The advantage is a clearly set regime and also the pressure that results from the fact that it is a paid service. As the sample above also demonstrates, tutoring itself can be a springboard for the student's interest and own individual preparation. Additionally, students are able to identify problematic topics and start to focus on practising a specific part of the tests:

We only practised the tests, and I, of course, still had some literature on my side, but we found out what we were looking for, so we really focused just by repeating the tests and repeating them and doing them exactly at that time, that means I printed out the tests, I also kept a record sheet, and that's how we actually did it completely, let's say... and she explained to me the specific things and what I still needed to learn. (student Dalibor)

Tutoring is often combined with an effort to simulate test conditions and through regular repetition of problem parts of the exam. It is also important to take into account the conditions of the test, such as the time and nature of the individual tasks. The simulation of the given conditions then makes it easier to cope with the requirements of the exit exam test.

Transforming the approach to preparation is an essential prerequisite for students' success in the upcoming re-examination. However, the preparation process can be complicated by the fact that students are no longer enrolled as active students, so they must work.

Well, I work for 12 hours. So I'm at work from 6 to 6. I came after work, washed, ate and then sat down for maybe an hour to learn. I told myself at least one test. How many times I didn't even enjoy reading it. I've done it in bits and pieces, maybe I did half of the test or sometimes I only devoted myself to it for 15 minutes and then I came back to it after a while, like that day. I took longer breaks to concentrate. (student Danuše)

Although students complete 4 years of secondary school, they formally only have finished basic education level, so they cannot pursue a wide range of occupations. Thus, unsuccessful students find employment in auxiliary job positions, which are intended for people with elementary education. It can thus be physically and time-consuming work, which is subsequently reflected in the actual preparation for the next attempt.

Obviously, the student may or may not succeed in the second re-examination. If there is repeated failure, the student repeats the entire fourth year of high school. So he or she returns to the school classroom among younger classmates. We can consider this step as challenging because this is an individual who already has work experience and, in some cases, has even become independent from the family. Daily education becomes a complication because it does not allow one to remain gainfully employed.

And so I called where I was actually immediately taken by the director, who immediately told me that there was no problem at all, for which I am very grateful... she immediately told me to board as soon as possible, so I actually had to cancel, already I only had a part-time job, so I had to cancel all those shifts and start school right away. (student Doubravka)

As the example above demonstrates, if the students decide to start their studies again, they can choose a different school. A change of school environment and a different approach to teaching could subsequently support the student's motivation and learning.

On the contrary, in the case of success, it is clear that the whole process becomes an important experience that affects the student's self-concept. It is mainly about realising a responsibility, as suggested by Dominik:

Well, certainly if I say it like a mental shift or something like that. A bigger balance, I would definitely say that maybe I am, I still struggle with it a lot, but I certainly have gained some responsibility to a certain extent, if I have to compare it with the first attempt. (Dominik)

It is also important to realise one's own abilities, which must be used to achieve a certain goal. Therefore, it is not possible to rely only on others and their support, but it is necessary to be able to determine the steps to complete certain tasks. According to Dalibor, this is the disappearance of a naivety:

I've definitely changed, I've definitely changed in that I know that I can't rely on someone to hold me up or save me or something, that it's always going to be like me or not always like of course I'm going to have people around me, who will help me to achieve the goal that in the end I will be the only one who has to finish it. (student Dalibor)

It is obvious that the completion of the upper-secondary school exit examination becomes an important milestone that allows the student to experience success and shapes his or her self-concept. On the contrary, failure to pass the exam negatively affects the perception of one's own abilities as well as further professional, educational and life trajectory. Support in the preparation process focused on learning styles and strategies, supplemented by support in the reflective phase with the aim of support in coping with stress and pressure, thus appears to be key in minimising the risk that the student will not pass the exam and will drop out from education.

Discussion

This study showed that failure in repeatedly unsuccessful students is caused by a lack of motivation and absence of learning strategies and goals to pass the exit examination (Zimmerman and Moylan 2009, Zimmerman 2011). The preparation for the Czech exit examination is complex and long-term and, therefore, different from students' experience in the school environment. The upper secondary school curriculum is divided into sub-topics, which teachers continuously evaluate to support student motivation (Dembo and Seli 2019). Teachers guide students in how, when and what to learn, but the preparation for the exit exam is more individualised and influenced by students' ability to regulate learning.

Although the cause of failure may be perceived as external or internal (Shepherd *et al.* 2006), it is also seen as unstable or malleable (Graham 2020). Students tend to interpret failure regardless of their abilities. This belief that there is no need to adapt the learning strategies leads students to underestimate the preparation for the following attempts to pass the exam. However, the impact of another failure is crucial because it complicates students' further educational and professional trajectories. For example, some students may defer their university studies to start a job. Evidence shows that students reflect social pressure, negative feedback from parents, or negative emotions, such as shame and anxiety, after the second failure. Shame can be followed by increasing effort and persistence to achieve the task (Turner *et al.* 2002).

Additionally, perceived causes of failure are more internal than external. Anderson *et al.* (2005) point out that the internal locus of control is associated with achievement. Consequently, examinees are more motivated to pass the exam and adopt effective preparation strategies. As Linnenbrink and Pintrich (2002) add, motivation is not a stable trait and can vary depending on the situation or context.

Certain biographical aspects affecting examinees' self-regulated learning were visible in their narratives. The failure at the exit examination constrains the examinees' biographical agency (Heinz 2002), limiting their access to further education or qualified work. (Macdonald, 2012) investigated biographical aspects of educational disengagement and criminal behaviour in young adults with dyslexia and showed learning barriers shaping the further life course of three informants. In this understanding, a '*biography* is the person's reflexive arrangement with the circumstances and contingencies of the life course which is socially structured by constraints and opportunities' (Heinz 2002, p. 226). Similarly, Pessl, 2019 explored early school leaving from a biographical and discourse analysis perspective in one case study and showed that the turning point in the biography was not the early school leaving itself, but it was developed earlier in outside school habitus and gradually reached the education stage. Through different aspects of their subsequent lives, examinees biographically reflect on their experiences with exam attempts and learn from failing them. Subsequently, biographical learning (Biesta and Tedder 2007) from repeatedly failing the exam can motivate the examinees to revisit their self-regulated learning strategies.

Repeated failure is associated with negative emotions during self-reflection when students decide on the follow-up forethought phase. Zimmerman's model of SRL can be criticised for neglecting emotions and their influence on learning (Panadero and Alonso-Tapia 2014). Negative emotions also relate to test anxiety during exams

in the performance phase. Test anxiety or exam stress is associated with the fear of negative evaluation that results in negative behavioural, physiological, or emotional responses (Zeidner 1995, 1998). There is evidence about the relationship between higher levels of test anxiety and lower levels of performance (Von Der Embse *et al.* 2018).

The effects of repeated failure can also be seen in the context of drop-out. However, Holme *et al.* (2010) assert that exit examination does not affect average students but negatively influences low-achieving students. Our results suggest repeated failure threatens the student because of detachment from school. In the case of drop-out from upper-secondary school, students formally completed only elementary school. Hemelt and Marcotte (2013) points out that drop-out is negatively affected by the absence of alternate pathways to receive a diploma (which is the case in the Czech Republic). Therefore, dropping out of upper-secondary school affects employability, poverty, criminality, and mental health (De Witte *et al.* 2013, Freeman and Simonsen 2015). Additionally, repeated failure can affect an individual's self-concept and self-efficacy or self-confidence because they are influenced by experiences with the environment and by reinforcements and evaluations by significant others (Schunk 1991). Protective factors against the negative impact of failure are, for instance, positive self-perception, effort, emotional well-being or emotional and instructional support from an individual's environment (Kruger *et al.* 2016).

Limits

Limits of this study are the focus on exit examination perception and not the whole life stories of the participants as well as its only 2-year quasi longitudinal design.

Practical implications

The crucial question remains how to support students who experience repeated failure. One possible solution is to focus on creating a growth mindset environment (Kruger *et al.* 2016). A school-wide approach that emphasises this can foster a student's self-perception, emotional well-being, and effort in the long term. Studies show that high teacher expectations, quality instruction, and positive student-teacher relationships all contribute to increased behavioural and cognitive engagement (Fredricks *et al.* 2004, Archambault *et al.* 2020, Martins *et al.* 2022).

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