

Exploring Extra-Curricular Bootcamps: A Qualitative Study on Accelerated Learning in Higher Education

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Abstract

In response to the persistent challenge of study delay in higher education in the Netherlands, innovative approaches such as extra-curricular bootcamps have emerged. These dynamic and intensive programs offer an alternative to traditional education, providing accelerated learning experiences for students. Teachers are increasingly taking on coaching roles, guiding students through their study progress and choices. This article presents the findings of a qualitative research project of graduation bootcamps during three study years with 225 last year students with substantial study delay. We used open coding to get to the themes of key elements such as collaboration, peer interactions, teaching methods, motivation, and coaching within the context of bootcamps. We subsequently used selective coding based on the Self Determination Theory to further analyse the data. Although the implementation faced challenges, the results show that ongoing support and a community of like-minded individuals are essential for success. This study confirms the literature on the need for motivation and structured support in overcoming academic delays and provides practical insights for the development of effective educational interventions.

Keywords: delayed graduation, bootcamp, higher education

1. Introduction

The modern labour market demands highly educated professionals who contribute to innovation, efficiency, and competitiveness. The Association of Universities of Applied Sciences (2023) in the Netherlands maintains a record of bachelor's degree completion rates across all universities of applied sciences. This data reflects the percentage of students who have obtained their diploma within the nominal study period plus one year. Nationally, bachelor's degree completion rates in the Netherlands varied in 2017 between 42.7% and 72.7%. Study delay poses multifaceted challenges for students, institutions, and society (Bunce et al., 2016). Not only does it directly impact institutional performance, student well-being, and educator workload, but it also affects businesses and local governments. The risk of falling out of the regular educational system hinders quality of life and job market entry (Määttä & Uusiautti, 2018).

At our university of applied sciences, a total of 1500 students has significant study delays, of which 500 are stuck in the final phase of their studies, specifically while writing their theses. Procrastination is a common issue among 80-90 % of college or university students, with approximately 50% considering it problematic behaviour (Abbasi & Alghamdi, 2015). Therefore, the need for effective interventions to reduce study delay in higher education is high. This paper aims to contribute to that need.

Even though severe delayed students in the end of their study face just a short time period to end their study and to add value in the labour market they are still not able to proactively act. One student's experience illustrates the dilemma: "Year after year, I re-enroll in my study, making little or no progress. I work in a job beneath my skill level, feeling forgotten by the institution. The pressure and stress mount, yet embarrassment and insecurity prevent me from initiating contact."

An analogy emerges from the world of cycling: imagine being at the back of a peloton, watching the gap widen between the leading group and the middle group. Similarly, students with severe academic setbacks find themselves at the back of the academic pack. Isolation and shame accompany their journey, but hope persists. They teeter between flight (away from frustration and self-doubt) and fight (hope for a comeback). Despite enrolling year after year, they remain “ghost” students, feeling the mounting pressure and urgency. Given the substantial percentage of students experiencing study delays, there is an urgent need for proactive measures to support these slow potentials in achieving their academic goals and becoming the highly educated professionals demanded by the labor market.

To address this challenge, our study focuses on a graduation bootcamp—a proactive intervention. Motivation, derived from the Latin word “movere” (to move), plays a central role. By evoking intrinsic motivation, the graduation bootcamp aims to activate and convert energy into action (Skinner, 2023). Structured guidance, autonomy, and a supportive community are essential components. The purpose of this study is to examine the effectiveness of a graduation bootcamp—a proactive intervention designed to address study delays—on students’ intrinsic motivation and subsequent academic performance.

2. Literature

According to the Self-Determination Theory by Ryan and Deci (2020), motivation exists on a continuum from extrinsic to intrinsic. Extrinsic motivation is associated with limited autonomy, rewards as incentives, and avoidance of punishment, while intrinsic motivation represents the highest level of autonomy and purposeful behaviour. Furthermore, motivation is enhanced by feelings of mastery (self-efficacy) and relatedness with significant other. It’s interesting to see how these concepts play out in the educational setting of the graduation bootcamp aiming to activate slow potential students who have a sense of urgency but struggle to join the pack.

Significant causes of study delay are generally defined by lack of intrinsic motivation, inadequate individual guidance, and poor educational quality (Education Inspectorate, 2021d). Study delay is the outcome of a poor interaction between education and student. The majority of studies focus at psychological aspects of delayed students, such as low self-esteem, self efficacy beliefs, and personal characteristics (Hajloo, 2014; Parwez, Khurshid & Yousaf, 2023). Self-regulation and self-efficacy being the dimensions most worked on in the classroom. Salguero-Pazos and Reyes-de-Cózar (2023) categorize the personal causes of study delay, Self-efficacy and maladaptive beliefs; Unproductive achievement motives; Personality: Self-regulation failure; Perfectionism and avoiding mistake; and Anxiety and insecurity along three axes. The psychological (self-regulation, self efficacy, self-esteem, motivation, perfectionism, personality and anxiety), pedagogical (academic performance and student dropout) and personal (authoritarian parenting) axe. To address psychological challenge of delayed students, universities have turned to intensive programs (Vaessen, 2023; Ten Hagen, 2022; Veenman-Verhoeff, 2021; Brauer, et al., 2020, 2019) to unleash students’ love for learning as motivation underlies effective learning activities.

However, situational causes of procrastination receive less emphasis in literature. Well known is the temporal motivation theory that stresses that time and an upcoming deadline are crucial in undertaking action (Steel & Klingsieck, 2016). The contra productive behaviour of postponing is increased not only when the timeframe between doing and payback is significant but also when the chance on success and deriving value in studying is poor (Baars et al, 2021).

In this study we analyse the value of a motivational graduation bootcamp for students with severe study delay in the end of their study, that combines both psychological and situational perspective. For this we use the theoretical framework of the self determination theory by embedding the three core variables of this theory with empirical research on procrastination of students. In the literature, we find that motivation is necessary for students to carry out their learning activities effectively (Kemal, Riniati, Haetami, Wahab & Pratiwi, 2023) and that academic procrastination is very common among students, associated with a lack of motivation (Anggoro, 2021).

When it comes to intrinsic motivation of students engaging in study activities because of the inherent value they find in them, Ryan and Deci’s Self-Determination Theory (2020) offers a theoretical model that distinguishes three fundamental human needs:

- (1) Perceived Competence: Students’ self-confidence and perceived competence significantly impact their motivation. As they gain mastery and confidence in their academic pursuits, their enjoyment of the study process increases, leading to greater investment of time and energy (Akbari & Sahibzada, 2020).
- (2) Autonomy: Autonomy refers to the freedom of choice and independence in decision-making. When students perceive control over their learning process, their intrinsic motivation is enhanced (Evans & Boucher, 2015).

(3) **Relatedness:** Students experience greater intrinsic motivation when they feel connected and part of a community. Interactions with peers, collaborative learning, and a sense of togetherness contribute to this need (Capon-Sieber et al., 2022).

The key question is how participation in a graduation bootcamp influences students' perceived competence, autonomy, and relatedness, and how do these factors impact their intrinsic motivation and overall study success?

2.1 Competency of Procrastinating Students

Some key competency-related factors for prolonged studies among students based on literature references are:

Study and Writing Skills: Some students struggle with effective studying and writing. Difficulties in organizing study materials, comprehending content, and expressing ideas in writing can lead to delays in academic progress (Lone, 2021).

Time Management: Poor time management can cause students to postpone tasks and miss deadlines. When students struggle to allocate time efficiently, it can result in longer study paths and delayed completion of coursework (Bocsi et al., 2019).

Lack of Self-Confidence (Self-Efficacy): Students who lack confidence in their abilities may tend to procrastinate. A belief that they cannot successfully perform certain tasks can hinder their academic progress. Building self-efficacy through positive experiences and support is crucial (Ko & Chang, 2019; Wäschle et al., 2014).

Personality Traits: Depression, anxiety, and other personality traits significantly impact study behavior. Students experiencing mental health challenges may find it difficult to focus on their studies, leading to delays in graduation (Lai & Rahman, 2015; McLaughlin et al., 2014; Steel & Klingsieck, 2016).

Well-being and Health: Students struggling with physical or mental health issues may face difficulties concentrating on their studies. These challenges can contribute to longer study paths and delayed completion of academic requirements (Määttä & Uusiautti, 2017).

Financial Problems: Financial stress can disrupt students' educational journey. Financial constraints may force students to interrupt or delay their studies, affecting their overall progress (Bomer et al., 2021).

Supervision of Graduation Theses: Effective supervision during thesis work is essential. When students receive guidance, encouragement, and constructive feedback, it contributes to their sense of competence and helps them complete their theses more efficiently (Wardi, 2016).

2.2 Autonomy of Procrastinating Students

Literature also discusses various factors specifically concerning the autonomy of procrastinating students. Here are some key points:

Self-Generated Goals: When academic goals are generated by students themselves, they more directly reflect their specific needs and contribute to a growth mindset regarding procrastination (Marif & Konadi, 2023; Krause & Freund, 2014).

Goal Management and Temptations: Managing goals and dealing with distractions are significant factors contributing to procrastination. However, interventions like setting SMART academic goals and planning responses to distractions do not significantly reduce procrastination (Gustavson & Miyake, 2017). In fact, such interventions might create the misconception that procrastination can be easily changed, leading to disappointment and ironically more procrastination.

Deadlines: Reminders and the motivating power of approaching deadlines play a crucial role in following through on intentions. Working toward deadlines is a strong motivator, as observed in educational practice (Steel & Klingsieck, 2016).

Other Priorities in Life: Sometimes students have other responsibilities, priorities or a lack of conscientiousness besides their studies, causing them to take longer to complete their education (Lederer et al., 2021).

2.3 Relatedness of Procrastinating Students

In the context of the Self Determination Theory, the factor "relatedness" plays a crucial role in understanding student motivation and well-being too:

Caring Teacherhood: The quality of teacher-student relationships significantly impacts relatedness. When teachers show genuine care, support, and positive interactions with students, it fosters a sense of connection and relatedness (Määttä & Uusiautti, 2018; Shahidi & Sobhani, 2015).

Well-Structured Student Tutoring: Effective student tutoring programs contribute to relatedness. When students receive personalized guidance, feedback, and encouragement, they feel more connected to their educational journey (Orazbayeva et al., 2021).

Positive Study Atmosphere: Creating a positive and inclusive study environment enhances relatedness. When students feel welcomed, respected, and part of a supportive community, their motivation and well-being improve (Määttä & Uusiautti, 2018).

Face-to-Face Teaching: As we learned during the COVID lockdowns, direct interactions between teachers and students promote relatedness. Face-to-face teaching allows for personalized communication, understanding individual needs, and building rapport (Murray et al., 2020).

Interaction Between Teaching Personnel and Students: Regular interaction, communication, and approachability of teaching staff positively impact relatedness. When students feel heard, supported, and engaged, their motivation thrives (Määttä & Uusiautti, 2017).

2.4 Intervention Design Criteria

Addressing procrastination requires targeted interventions. Based on the conceptual model of the Self-Determination Theory and factors related to study success found in the literature, the following key design criteria are applied in developing a graduation bootcamp to reduce procrastination among long-term students:

Promoting self-efficacy: Providing constructive feedback tailored to individual needs, and making students feel that their contributions are valued. Interventions can include peer feedback and collaborative interactions to offer constructive learning opportunities.

Supporting autonomy: The design of interventions should consider students' autonomy. This means allowing students to make choices and have influence over their own learning process.

Creating positive social connectedness: Interventions should focus on promoting positive relationships among students, their peers, teachers, and the learning environment. An inclusive and supportive atmosphere improves student well-being within the educational context.

By incorporating these design criteria, a graduation bootcamp was developed and implemented to support students in overcoming procrastination by enhancing their intrinsic motivation and will to act.

3. Method

3.1 Participants and Bootcamps

Over the course of three consecutive academic years, we implemented a series of diverse graduation bootcamps targeting 225 students across 15 distinct study programs. These students exhibited significant study delays and were in the advanced stages of their degree programs.

3.2 Procedure and Measurements

In this study, action research—a form of collective self-reflective inquiry—is employed. The cyclical approach involves learning, experimentation, and innovation, facilitating both knowledge development and increased competence among participants (Oranga & Gisore, 2023). Action research emphasizes the importance of adapting strategies and continuously refining an approach based on success rates and participant evaluations to support students with study delays in achieving their academic goals.

The researchers actively engaged in bootcamps, coaching groups, and conducted qualitative analysis using written evaluations from 29 students. Initially, the data was openly coded, and subsequently, it was selectively analysed based on the core constructs of the Self-Determination Theory: autonomy, competence, and relatedness.

The evaluation questions are as follows:

- (1) What were your reasons for choosing to participate in the graduation bootcamp?
- (2) Which aspects of the graduation bootcamp did you find pleasant?
- (3) How could the bootcamp have better assisted you?
- (4) Would you recommend the graduation bootcamp to others? If yes, why? If not, why?
- (5) My graduation assignment is (likely) completed on ...
- (6) On a scale of 0 to 10, how likely do you consider it that you will pass your graduation assignment?

4. Results

4.1 Case Description

This case description of slower-progressing students, in need of active support to bridge the gap with their peers through their own efforts, consists of a graduation bootcamp intervention based on how these students perceive and understand the goals and reality of their study progress. In 2021-2022, we started with two bootcamps for 16 students with a duration of 5 fulltime days in the program where we worked as research instructors. With an impressive 90% success rate, we opened up the bootcamp to students from all programs within the university. However, in 2022-2023, we faced challenges as we reorganized four bootcamps for a larger cohort of 69 students, resulting in a disappointing success rate of 30%. Upon reflection, we realized that students needed continued support beyond the bootcamp itself—a lesson we had learned from our own study program. More than half of the participants expressed the need for multiple follow-up sessions. Undeterred by the setback, we took proactive steps during the 2023-2024 academic year. We expanded the bootcamps to accommodate 150 students from 15 different educational programs. Students from diverse academic backgrounds—ranging from economics, media, education, leisure, to social work—exhibit distinct personality styles and varying learning and pedagogical requirements. To address the success rate issue, we incorporated various follow-up sessions, which significantly improved the overall success rate to 50%.

A multi-disciplinary team performed the following roles within the graduation bootcamps:

- (1) Educators: Instruct and coach students towards completing their thesis.
- (2) Coaches: Assist students in overcoming motivation and concentration obstacles.
- (3) Study and Career Counsellors: Help improve students' personal situations in emotional, social, and financial aspects. They also arrange possible extensions for study enrolment.
- (4) Librarians: Instruct students in information skills such as retrieving literature, APA formatting, and writing skills.
- (5) Peers: Provide knowledge sharing in thesis writing, offer fellowship and shared interests, and support each other (they often start a group app).

Successfully completing a bootcamp requires a high level of dedication and motivation. The intensive nature demands that students maintain a strong focus and unwavering determination throughout their journey.

'It has greatly helped me to regain the motivation to complete my education. You also tend to feel a bit like a failure because you haven't finished your education yet, but during the bootcamp, you realize that many people are dealing with the same problem' Participant.

The participants unanimously praised the initiative, acceptance, personalized interventions and peer support: "This was a must-have for me and actually for every student working on a thesis".

4.2 Analysis

The key themes resulting from open coding of the textual data are Collaboration, Motivation, Teaching, Peers, and Coaching. With selective coding on base of the Self Determination Theory the following themes are constructed:

4.2.1 Immersive Teaching Methods

- (1) In a relatively short time, there was a lot of guidance and a workspace to work on the thesis with other students. It boosts motivation.
- (2) One week of full-on work—it's the perfect jumpstart.

The teaching methods employed in the bootcamp diverge significantly from conventional approaches. Rather than relying on traditional lecture halls, the emphasis here is on hands-on, project-based learning. Students fully engage in their thesis work, devoting an entire week to intense focus. Our experience also underscores the importance of ongoing support and tailored interventions to maximize student outcomes in bootcamp settings.

In this intense atmosphere of focusing on completing their theses, students increasingly gain more control and autonomy, and they make positive learning experiences that rebuild their confidence in their abilities. The outcome is a reinvigorated sense of purpose, competence and motivation.

4.2.2 Extended and Personalized Guidance

- (1) The availability of teachers and quick assistance with your help request.
- (2) In a relatively short time, there was a lot of guidance and a workspace to work on the thesis with other students.

The success of the graduation bootcamp also lies in its commitment to extended and personalized guidance. Experienced facilitators, armed with a proven track record in assisting students with learning difficulties, play a pivotal role. These mentors understand the unique challenges students face and tailor their support accordingly. The bootcamp also taps into the power of peer mentors who provide relatable guidance and foster a sense of community and relatedness.

4.2.3 Collaborative Learning: A Transformative Experience

(1) Being present at school and being with a group of people in the same situation where you can share your experiences.

(2) You have enough sparring partners when you get stuck. It provides an extra push to work on your thesis.

Participants in the bootcamp consistently highlight the transformative impact of collaborative learning. Working alongside like-minded peers from different programs but all striving toward a common goal with a collaborative spirit, not only accelerated progress but also created a supportive ecosystem where all participants thrive.

4.2.4 The Role of Motivation and Coaching

(1) The open setting and very accessible assistance are pleasant and really helped me stay focused.

(2) It boosts motivation. I usually find it scary to ask questions, but every question was answered well, and I didn't feel stupid.

Completing a bootcamp demands unwavering dedication. That is where coaching steps in. In a relatively short time, students receive expert guidance and gain access to a dedicated workspace for thesis work. They do not get judgment, just answers. The boost in motivation is palpable. Even those who usually hesitate to ask questions found themselves empowered.

Based on these guiding principles, intensive graduation bootcamps strive to increase motivation, foster collaboration, and offer personalized guidance to students facing academic setbacks.

5. Conclusion and Discussion

5.1 Conclusion

The current study investigated the effect of a motivation-oriented graduation bootcamp on students with significant study delays, using the Self-Determination Theory (SDT) as a theoretical framework. SDT emphasizes three fundamental human needs: competence, autonomy, and relatedness, which are crucial for intrinsic motivation and effective learning. Our results show that the bootcamp, despite some challenges, had a positive effect on these needs, consistent with findings in the literature.

5.2 Competence

Our research indicates that intensive guidance and a structured work environment during the bootcamp significantly contribute to students' self-confidence and skills. These findings support the literature by Akbari and Sahibzada (2020), which suggests that increased self-confidence and competence enhance motivation and investment in study activities. Despite an initial low success rate of 30% in 2022-2023, success improved to 50% with the addition of follow-up sessions, indicating that ongoing support is essential.

5.3 Autonomy

The bootcamp provided students with the opportunity to make their own decisions and influence their learning process, which strengthened their intrinsic motivation. This is consistent with the findings of Evans and Boucher (2015), who emphasize that the perception of control over the learning process promotes motivation. The personal approach and freedom within the bootcamp structure supported students' autonomy.

5.4 Relatedness

The bootcamp created a supportive community where delayed students who have lost contact with their peers and lecturers, felt connected which improved their motivation and well-being. This aligns with the findings of Capon-Sieber et al. (2022), which indicate that interactions with fellow students and a sense of camaraderie contribute to intrinsic motivation. The experience of shared goals and support during the bootcamp was crucial for students' perception of relatedness.

These results suggest that interventions which address both psychological and situational aspects can be effective in motivating delayed students to act. The findings of Steel and Klingsieck (2016) on the influence of deadlines and time pressure on student behaviour are also confirmed by the structured and time-bound nature of the bootcamp,

which motivated students to achieve their goals. The intensive bootcamp for five full days, supplemented with as many follow-up sessions as needed, facilitates a self-reinforcing cycle of focus, energy, and performance. By spending time in a social environment with peers and instructors, structured learning begins to yield positive learning experiences and improved performance. This heightened sense of competence acts as a motivator, which may have been primarily extrinsic but turned along the way into intrinsic.

By providing extended and personalized guidance, fostering a sense of community, and leveraging an extra curricular program, bootcamps create an environment where students feel supported, engaged, and motivated to succeed and promote inclusive education without judgment of past experiences. Bootcamps emerge as a promising avenue for acquiring relevant skills to unfreeze slow potentials and prepare them for the dynamic challenges of their next step; the job market.

In conclusion, extra-curricular and multi-disciplinary graduation bootcamps seem to be a dynamic and intensive alternative to traditional education, offering delayed students accelerated learning experiences. Whether due to personal challenges, learning difficulties, or other factors, these delays can be overcome. The graduation bootcamp experience exemplifies a microcosm of what education could be: collaborative, transformative, and empowering.

5.5 Strengths and Weaknesses

The study also acknowledges the limitations and challenges inherent in implementing bootcamps effectively. The drop in success rates from the institute-wide bootcamp to the broader bootcamp indicates the need for ongoing refinement and adaptation of these programs to meet the diverse needs of students from various academic backgrounds. Moving forward, further research and collaboration are needed to continue refining and optimizing the effectiveness of bootcamps as a holistic intervention for addressing study delay and promoting student success in higher education.

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