

SUMMARY

A new perspective on academic and social aspects of student life

Student learning outcomes and retention are key elements in work to develop higher education programmes. Especially in the efforts to reduce dropout, a distinction is often made between a social and an academic dimension in student life.¹ In support of this work, this report from the Danish Evaluation Institute (EVA) focuses on student academic engagement and social attachment.

The objective of the study is threefold. Firstly, we want to contribute to conceptual clarification of the area. Secondly, we want to develop scales that make it possible to measure the two concepts. Thirdly, we want to examine the level and the importance of academic engagement and social attachment empirically. The first two objectives relate to the question of how academic engagement and social attachment are defined and measured. This is dealt with in a background report: *Academic engagement and social attachment - from theoretical concepts to empirical measurement (Fagligt engagement og social tilknytning – fra teoretiske begreber til empirisk måling)*.

The main report *A new perspective on academic and social aspects of student life (Et nyt perspektiv på faglige og sociale aspekter af studielivet)* addresses the level and the importance of academic engagement and social attachment.² This is done by identifying the levels of different groups of students on the two scales used and, secondly, by examining the relationship between academic engagement and social attachment, on the one hand, and student dropout rates and other aspects of the programme on the other.

The theoretical perspective and the concepts used are based on the literature about student engagement and motivation, and on the empirical validation analyses in the study. The study uses survey data collected through the Danish Evaluation Institute's longitudinal study of higher education.

Overall, the analyses in the report support the understanding that the two concepts are keys to understanding how to promote student learning outcomes and retention in higher education programmes. This support is based on the theoretical foundation, the empirical validation analyses, and, finally, the strong correlation between the two concepts, on the one hand, and the students' risk of dropout on the other.

¹ This is often inspired by Vincent Tinto's concepts of academic and social integration, which are key concepts in understanding dropout, e.g. see (Tinto, 1993).

² The main report and the background report are only available in Danish.

Academic engagement and social attachment

Academic engagement

Academic engagement is defined on the basis of literature on student engagement and literature about what motivates students. Academic engagement is considered in the report as a multi-dimensional concept. We have established an overall measure of academic engagement comprising the following four aspects:

- Interest
- Usability
- Effort
- Elaboration

Social attachment

Social attachment is also defined on the basis of literature about what motivates students, and it describes students' experiences of belonging to or being attached to groups of other students on programmes.

The two concepts are presented in more detail in chapter 3, and the theoretical background for the development of the concepts is described more exhaustively in the background report: *Academic engagement and social attachment - from theoretical concepts to empirical measurement*.

Relevance, academic context and target group

Relevance

The study focuses on student academic engagement and social attachment, drawing on the presumption that the concepts are key in relation to student retention and learning outcomes on higher education programmes. Politicians often want to reduce dropout rates and thus reduce the costs of interrupted or discontinued courses of study.³ Furthermore, in the wake of the large increase in the intakes of higher education programmes throughout the 2000s (EVA, 2015), there is increasing focus on ensuring that students achieve high learning outcomes with relevance for society as a whole (Expert Committee on Quality in Higher Education in Denmark, 2015).⁴

The debate about how we can promote high learning outcomes and student retention has focused on various aspects, including the following: student time consumption (EVA, 2018; Expert Committee on Quality in Higher Education in Denmark, 2015, p. 95), student motivation (Sørensen, Hutter, Katznelson, & Juul, 2013) and student engagement (Fredericks, Blumenfeld, & Paris, 2004; Kahu,

³ See for example: *Retfærdig retning for Danmark - a political understanding between the Social Democratic Party, the Social-Liberal Party, the Socialist People's Party and the Red-Green Alliance*, p. 13.

⁴ The Committee calculated the total costs of the so-called taximeter value added student grants in the field of higher education to be ca. DKK 30 billion annually.

2013)⁵. Furthermore, there are regular debates within both educational institutions and the general public on how programmes can promote student social wellbeing.

The purpose of this study is to contribute to our understanding of what it means to be academically engaged and experience social attachment while enrolled on higher education programmes, and what significance this has for student pathways through education. The report also qualifies how it is possible to measure the two concepts: academic engagement and social attachment.

In recent years, there has been great focus on basing efforts to develop higher education programmes on data, including in particular efforts to reduce dropout rates. However, the question of how to specifically realise the vision of data-driven quality development, so that investments in collecting and analysing data are translated into specific interventions that address genuine reasons for dropout, is still a matter of debate. This report provides theoretically grounded and empirically tested measurements that could be included in work to collect and use data for quality development. Thus, the report helps provide a basis for educational institutions to adopt data-supported initiatives to improve student academic engagement and social attachment on higher education programmes.

Academic context

Although the literature increasingly focuses on student engagement, there are still many different ideas on how engagement should be defined. Moreover, it is often unclear how different types of engagement more precisely relate to theories of cognition and learning (Fredericks et al., 2004; Kahu, 2013, p. 758). This lack of consensus is also reflected in empirical studies, where the application of overall concepts, e.g. engagement or learning environment, often reveals significant differences in terms of definition and content.

In a Danish context, several studies have been completed that touch on these themes. The Expert Committee on Quality in Higher Education in Denmark completed a Danish version of the questionnaire in the *National Survey of Student Engagement* in 2014. Similarly, several studies have been carried out on the basis of an adjusted version of the LEARN questionnaire that asks about student learning strategies as one of several aspects related to a broad understanding of the learning environments of higher education programmes.⁶

Even though these studies deal with related topics, there are significant differences between them in terms of content. While the Committee on Quality examines engagement as a combination of behaviour and institutional practice (Kahu, 2013, p. 760), the definition of academic engagement used in this report focuses on student cognitive and emotional engagement. Furthermore, even though LEARN uses measures for learning strategies that are thematically related to our measures of academic engagement, LEARN has, for example, a different theoretical basis that does not relate to student engagement.

Compared with previous studies completed in a Danish context, this study offers a new perspective on both academic and social aspects of student life in higher education programmes.

⁵ At international level, this is in focus in the *National Survey of Student Engagement (NSSE)*, which has been translated into many different languages and implemented in several countries. In a Danish context, the Expert Committee on Quality has completed a Danish version of the NSSE, and has helped place focus on student engagement, which in turn has led to focus on student time consumption (Expert Committee on Quality, 2015).

⁶ See e.g. <https://ufm.dk/uddannelse/statistik-og-analyser/laeringsbarometer>.

Target group,

The report is relevant reading for anyone interested in measuring and monitoring key aspects of student life in higher education programmes, e.g. politicians, educational institutions and student organisations. The report is particularly relevant for managers and staff at higher education institutions who work on strengthening student retention and learning outcomes.

Results

Academic engagement and social attachment are linked to the risk of dropout.

There is a strong relationship between a student's level of academic engagement and social attachment and the student's risk of dropping out. A higher level of academic engagement or social attachment is linked to a lower probability of dropping out of an education programme. Academic engagement is particularly strongly related to the dropout-risk.

Analyses of different aspects of student academic engagement show that student interest in the academic content is particularly closely related to the risk of dropout.

The correlation between the total measurements of academic engagement and the risk of dropout is also more or less equally strong in all three sectors, although it is slightly stronger at universities compared to university colleges and academies of professional higher education. As regards social attachment, the correlation with the risk of dropout is slightly weaker at university colleges than in the other two sectors.

The strong correlation with dropout supports the claim that the two scales are valid measurements of student academic engagement and social attachment. Overall, the analyses also indicate that levels of student academic engagement and social attachment affect the probability of dropping out during the first two years of study.

Academic engagement is closely correlated with motivation, cooperation and how students experience teaching

We find there is a generally close correlation between student academic engagement and other key conditions in the programme, which confirms a mutual influence between academic engagement and these conditions. Thus, we find strong correlation between student academic engagement and other factors relating to motivation. There is also generally strong correlation between students' academic engagement and their experience of the different aspects of the subjects and teaching. Finally, there is a strong correlation with how often students collaborate with other students, and we have also found correlation with students' propensity to seek help and their level of social attachment.

Social attachment is closely correlated with other social conditions and overall motivation

Not surprisingly, there is a very strong correlation between student social attachment, on the one hand, and a number of other social aspects of a programme on the other. This particularly applies to students' propensity to seek help and how often they collaborate with other students. There is also a close relationship between social attachment and students' overall motivation to study on

their programme. This is interesting, because it confirms that there is a mutual influence between social conditions and motivation to study. Finally, there is also a relatively strong correlation between social attachment and experience of different aspects of the subjects and teaching.

In general, there are small differences between the academic engagement of different groups

Generally, the differences are small when comparing the level of academic engagement between different groups of students. For example, this applies for men and women as well as students in different age groups. However, there are larger differences for some groups of students, and it is worth noting that students with a vocational training qualification are on average more engaged than students with alternative upper secondary level education backgrounds. Furthermore, the results show that, on average, students with an immigrant background are slightly less academically engaged, while their descendants are equally academically engaged when compared to students with ethnic Danish origins.

Young students, students of ethnic Danish origin and students with good grades have stronger social attachment

As with academic engagement, some groups of students on average have stronger or weaker social attachments within higher education programmes. The differences here are slightly larger, however. The results show that students under 21 years old have stronger social attachments than other students. Students with Danish origins have stronger social attachments to their programme than students with an immigrant background and descendants. Finally, students with a high grade point average (GPA) from upper secondary education have stronger social attachment than their fellow students with a lower GPA from upper secondary school.

Perspectives

Academic engagement and social attachment affect student learning outcomes and dropout rates.

Overall, the analysis supports the hypothesis that academic engagement and social attachment have an impact on student learning outcomes and retention on programmes. According to the theoretical perspective of the study, academic engagement and social attachment are key concepts in explaining motivation, time consumption, retention and learning outcomes. The theoretical basis is primarily (but not exclusively) based on literature about what motivates students to study and, thereby, achieve high learning outcomes, which supports the hypothesis that the concepts are important for student learning outcomes. The empirical analysis demonstrates a close relationship with student dropout risk, which supports the hypothesis that the same concepts have an impact on student retention.

Academic engagement and social attachment are formed by the context

In the study, academic engagement and social attachment are considered as social-cognitive constructs. This means that they are presumed to be conditional upon individual and psychological processes (e.g. general needs for autonomy, relatedness, etc.), and they are situationally deter-

mined. Therefore, education institutions can also help create conditions to influence student academic engagement and social attachment. There is hardly a general answer to how one can and should work to strengthen academic engagement or social attachment for specific programmes; on the contrary, there may be many different ways for many different contexts. The study provides an idea of some key, general concepts related to student retention across all higher education programmes and, thus, it can also be used to examine the impact of initiatives to prevent dropout, for example.⁷ The strong relationship between academic engagement and social attachment, on the one hand, and a number of other factors on programmes on the other hand, also supports empirically the notion that social attachment and academic engagement are formed by the context.

Measurement of academic engagement and social attachment should be perceived as dynamic work

Both the theoretical content and the measurement of the two concepts should be considered dynamic factors that can be further developed and improved. In this report, we argue that academic engagement consists of four aspects. Even though our selection of the four aspects is based on theoretical considerations, there is also an element of discretionary selection. For example, the *Motivated Strategies for Learning Questionnaires* survey tool from which the four aspects are taken has six motivation scales and nine scales to measure the different types of learning strategies. It is not simply a question of whether the four aspects we have selected alone define student academic engagement.⁸ Our measurement for social attachment could probably also be further developed and improved. For example, there are indications that the scale applied is not good for distinguishing between students with high levels of social attachment. An improved scale could contribute more information about the exact levels of social attachment for this group.

About the data basis

The study is based on a questionnaire distributed in March 2018, six months after study start. Furthermore, data for the survey-based control variables were collected just prior to study start in August 2017 for the same student year. Other background and dropout data were collected from Statistics Denmark. The population includes students from all higher education programmes that enrolled students through the coordinated enrolment system in summer 2017.

⁷ For a discussion of the significance of context and culture, see Pintrich (2003, pp. 680-83).

⁸ See the background report: *Academic engagement and social attachment - from theoretical concepts to empirical measurement (Fagligt engagement og social tilknytning - fra teoretiske begreber til empirisk måling)*.