

SUMMARY

Ways to promote study intensity in higher education

An analysis of the effect of institutional tools on how much time students spend on their studies

Results and perspectives

Student investment of time, energy and engagement in their programmes plays an important role in determining their learning outcomes. Several studies have demonstrated that study intensity – understood as the time students spend on their higher education – is so low that the average time students spend on studies does not correspond to a fulltime programme.

Although it is up to the students themselves to decide how much time they want to spend on their programme, the time spent on studies is also likely to be influenced by various external factors, including the content and organisation of the programme and the academic requirements of the programme.

A key question is, therefore, what can the programme do to increase students' study intensity? Currently, there is very little systematic knowledge about this. The purpose of this study is to identify the institutional tools that are important for the study intensity of first year students enrolled in Danish higher education programmes.

On the basis of survey data and register data from all higher education programmes in Denmark, this study presents empirically well-founded suggestions for tools that education institutions can apply to promote student study intensity.

The survey is based on data from a longitudinal study carried out by the Danish Evaluation Institute of students who were admitted to a higher education programme in the summer of 2016, Uddannelseszoom (a digital tool for young adults to compare programmes on the basis of a number of parameters for quality and relevance), register data and data from the Coordinated Admission. The factors examined in this survey were measured in the autumn of 2016. The survey population was, however, limited to include the 10,229 students who also participated in round 3 of the Danish Evaluation Institute's longitudinal study in March 2017, which measured the students' study intensity. The study is based on the thesis *From part-time to full-time? About the impact of institutional tools on freshmen's study intensity and the moderating effect of educational predisposition* by Christian Brinkmann Damsgaard and Sara Poulsgaard in collaboration with the Danish Evaluation Institute. Results and perspectives are presented below.

Main results and perspectives

The analyses show a positive correlation between student study intensity and the students' experience of the following four factors:

1. Programme expectations towards study intensity;
2. Teacher availability;
3. Useful feedback from teachers;
4. A good framework for meeting fellow students during study start.

The results do not change significantly when the analyses are broken down into sectors. However, the size of correlations varies slightly across sectors. This is described in more detail below.

The results indicate that some tools work better than others when education institutions want to promote student study intensity. However, based on the results, several tools that seem to promote student study intensity require considerable additional investment by the programmes. For example, it takes additional resources if the programmes have to pay teachers to provide more feedback to the students, or if the framework allowing students to contact teachers (availability) is to be improved.

However, improving study start, by setting out clear expectations to study intensity from the very beginning and creating a good framework for meeting fellow students, is a one-off investment which programmes are likely to benefit from given the positive consequences this is expected to have. This study only examines the framework for meeting fellow students during study start. However, previous studies indicate that investing in study start is generally important. This could be because a successful study start can contribute to establishing a good framework and matching expectations – factors that are often highlighted as important preconditions for high study intensity.¹

Seen from a teacher's perspective, clearly communicating expectations to students with regard to study time does not require many resources. Even though many education institutions have already expressed high expectations regarding student study time, some institutions could become better at communicating their high expectations.

The analysis shows that communication of high expectations is the most important factor for increasing student time spent on studies. These findings are consistent with other research on how expectations contribute to shaping the student experience as well as increasing performance. A number of experimental studies have previously demonstrated that teacher expectations to student performance affect how well the students perform in an IQ test.² On this basis, it is not surprising that the expectations expressed by the programmes regarding student time spent on studies are significant for how much time the students subsequently spend on their education.

¹ The Danish Evaluation Institute, 2016, 2017.

² Raudenbush, 1984.

Sector-specific results

Many of the results of the general analysis remain the same when the analyses are broken down into sectors. For universities and business academies, the same four factors correlate with student study intensity, although the strength of the correlations varies slightly between sectors. Moreover, the degree of uncertainty increases compared with the general analysis across sectors. This may be due to fewer observations. The results are, however, generally very stable across the different education sectors.

For university colleges, the factors examined generally seem to be of minor significance. A good framework for meeting fellow students during study start is the only factor that is certain to influence student study intensity, whereas the estimates for the significance of expectations to study intensity and teacher availability are less significant and more uncertain. A possible explanation could be that students at university colleges are motivated by other things, including the prospect of working in a specific profession. This means that teacher expectations to student time spent on studies may be less important compared with the other sectors. Identifying more precisely the causes of the identified differences would require more detailed investigation.

Elaboration of the results

Regarding point 1. The analyses show that programme expectations to student study intensity is the factor that has the greatest effect on student time spent on studies. Regardless of which statistical model is used, this finding is robust, and this enhances the credibility of concluding that this is an actual effect.³

Regarding points 2 and 3. There is also a correlation between student perception of teacher availability and student study intensity. This is also the case for student assessment of feedback. It is well known in the literature that feedback is very important for students' learning.⁴ Based on the results, this correlation can partly be due to increased study intensity, as the results indicate that feedback has a positive effect on student time spent on studies. When measurements of teacher availability and feedback are included simultaneously (in the same model), the correlation is still positive, although somewhat weaker and more uncertain. This may be due to the two questions having a strong common component, e.g. the general level of satisfaction with teachers or the quality of teachers.⁵ Therefore, it is uncertain whether availability and feedback in themselves increase study intensity, or whether this is instead due to other aspects regarding the teachers. This should be investigated with broader measurements of the different aspects of teachers/teaching. However, the analysis confirms that teachers can influence student study intensity.

Regarding point 4. The analysis indicates that the way in which programmes set the framework for meeting other students during study start is significant for average study intensity six months into the programme (in March). Regardless of which statistical model is used, this finding is robust. It is noteworthy that study start seems to be significant for study intensity such a long time after study start. The Danish Evaluation Institute has previously demonstrated that study start has an effect on

3 Models have been specified with and without control for programme (programme dummies), as well as models in which the variable has been included without the other independent variables in the analysis, and also models in which all the independent variables have been included simultaneously. In all cases, similar significant correlation is found across the models.

4 See for example Schneider, & Preckel, 2017.

5 This is confirmed by an explorative factor analysis.

early dropout from a programme (EVA, 2017). The above results indicate, however, that study start – more specifically the social aspect – not only relates to the risk of students dropping out, but also to their study intensity.

Finally, the analysis shows that questions of whether the programmes take steps to form study groups, and whether the programmes generally have formulated clear requirements and expectations to the students (but not specifically about study intensity) cannot be shown to have significance for study intensity in this study.

Can education institutions increase study intensity using the tools examined?

The analysis provides credible indications of whether or not the different tools have an effect. Estimates of the size of the effects are, on the other hand, more uncertain. This is particularly because it cannot be ruled out that the estimates are partially a result of selection effects. Robustness analyses also show some uncertainty with regard to what exactly is behind the correlations for feedback and teacher availability (see discussion above).