

Goal Setting and Implementation Intentions to Improve Educational Outcomes

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Thursday 2 September, 15:00-16:30 BST

The success of any student's engagement with an educational programme is inherently determined by the student's own learning behaviour. This project will break new ground in creating a nexus between the research areas of behavioural economics, the economics of education and pedagogy. For any budget, educational outcomes can be improved by nudging student behaviour towards deeper and structured learning approaches to improve educational attainment. This project will consist of a field experiment conducted in an introductory undergraduate module at a UK university to test whether goal setting and implementation intentions can improve student engagement with learning material, student wellbeing through earlier preparation for assessment, and student academic attainment. The behavioural intervention is designed to be implemented with minimal resources with large scalability, and has the potential to significantly affect student engagement, which is of practical relevance to educational providers throughout the world. Moreover, the marginal effect can be expected to be higher in deprived areas or with students who may lack the soft skills required to plan their self-directed learning activities accordingly.

Existing Evidence

This project seeks to break new ground in combining behavioural interventions with pedagogical literature in the context of higher education. A student's observed engagement in a learning activity is significantly determined by the student's motivation and preferences. Moreover, even if a student intends to take part in a learning activity, they may lack the self-control skills necessary to carry out their intentions. This creates the potential for significant losses in the investment in higher education, particularly for socioeconomically disadvantaged students who may lack these soft skills or who may require to be engaged in paid employment to fund their studies, creating a strain on time resources.

Whilst there is a significant body of pedagogical literature that seeks to encourage student engagement in learning activities by considering their design (e.g. Gilboy et al., 2015), behavioural nudges provide a low-cost, high-return and more importantly – widely missing – opportunity to address the problems of student engagement. This project seeks to test the impact of goal setting ('how many or which activities I task myself with completing) and implementation intentions ('when I will complete these activities by, and in what order') nudges in the context of a field experiment in the UK higher education sector, where the problems of student engagement and lack of resources are widely acknowledged.

This project builds on the work by Clark et al. (2016) in using goal-setting as a motivational tool by incorporating implementation intentions that have been particularly successful in the field of health interventions (Gollwitzer & Oettingen, 2015; Milkman et al., 2011; Stadler et al., 2010). This combination of goal setting and implementation intentions may provide a more effective behavioural intervention in motivating students to complete learning activities in terms of completion rate, but also with respect to the scheduling of learning activities. Given that student wellbeing is of utmost importance, students who can be nudged towards earlier and sustained self-directed study should be less likely to engage in the more stressful and less effective learning strategy of cramming.

In the context of an increasing financial burden faced by students in higher education, increasingly resource-aware universities and a much more diverse student population, behavioural nudges offer a unique and powerful opportunity to support students to be better learners and, as a result, the opportunity to improve student attainment. There are also implications for how educational providers can harness the power of learning analytics from learning management systems to monitor student engagement and consequently design learning activities accordingly.

Research Questions & Methodology

The project will take the form of a field experiment in a first-year undergraduate module in introductory economics. The overarching research aim is to test whether behavioural interventions can improve educational outcomes. Specifically, this project will combine implementation intentions with goal setting to test whether there is an additionally significant effect to asking students to plan when they will complete their learning activities. The educational outcomes will be measured by the completion rate of practice exams, the final module grade, and a self-reported measure of wellbeing. The approach of this project is that of a field experiment, where individuals will be randomly assigned to treatment and control groups to identify treatment effects and causality. Students will be randomly assigned to one of three groups, a control group, a partial treatment group (goal-setting), and a full treatment group (goal-setting and implementation intentions).

Bibliography

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Developments in Economics Education Conference 2021

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Key words: Higher education, behavioural economics, nudges, goal setting, implementation intentions

JEL codes: I23, I26, A22