Designing digital nudges for self-regulation in a blended curriculum

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SESSION TYPE

Roundtables/Panels

ABSTRACT

Blended learning in higher education offers students a more flexible curriculum. This flexibility requires students to regulate their own learning, i.e. plan, monitor and adjust their own learning process. However, applying self-regulation strategies in blended learning proves to be difficult for students. In order to support self-regulation, digital nudges can be applied. Nudges are small and easy interventions which alters people's behaviour in a predictable way without restricting options (Thaler & Sunstein, 2008), such as a text message to alert students to do their homework. Prior to mLearn 2022, design principles for digital nudges to support students' self-regulation will be determined based on the outcomes of a systematic literature review and focus groups. During the mLearn 2022 session, participants will be encouraged to discuss the design principles for these digital nudges. The session will contribute to the design of digital nudges to support students' self-regulation in (blended) higher education.

Keywords: nudging, blended learning, self-regulation, higher education

RATIONALE

During the session at Mlearn 2022, we will first present some background information about nudges in general, the use of nudges in higher education, and the potential use of nudges to support self-regulation in blended learning. After presenting this background, our Mlearn session will focus on the use of nudges in education. Damgaard and Nielsen (2018) conclude that nudges in education do not always lead to better education outcomes, but nudges can improve choice processes in education. Most studies focus on short term effects of nudges, particularly on education outcomes. Nudges to support self-regulation in a digital learning environment, however, aim on long-term effects and on behavioural change. As such, the present research fills a gap in what is known about nudges in education.

The main focus of our session is to discuss the design principles for digital nudges that have been determined based on Educational Design Research (McKenney & Reeves, 2018) with the aim to support students' self-regulation in a blended curriculum for higher education. In preparation for the session, a literature review is conducted based on peer-reviewed articles focused on design principles for nudging in blended learning, digital learning and higher education. An example of a design principle for digital nudges is the duration of looking at the nudge. The effect of an informative nudges is stronger when a student looks at the nudge longer. In addition to the literature review, the design principles set in the literature review are analysed in two focus groups. The participants of the two focus groups are teacher-

students, teachers and higher education professionals who are interested in the subjects Blended learning and Artificial intelligence. Based on the literature review and the outcomes of the two focus groups design principles for digital nudges have been determined with the aim to support students' self-regulation in a blended curriculum for higher education. During the mLearn 2022 session these nudges are briefly presented to the attendees, a discussion can take place in which the design principles for the digital nudges are being disputed and suggestions are made to modify the design principles to make them more suitable for the purpose of developing digital nudges to support students' self-regulation in a blended curriculum for higher education. Different questions and statements will be used to contribute to the discussion, such as questions about the different types of nudges and a statement about the different approaches to provide digital nudges.

After the session the design principles for the digital nudges will be adjusted based on the output of the discussion. These design principles will result in developing digital nudges to support students' self-regulation in a blended curriculum for higher education. The developed nudges will be presented in a learning management system to third- and fourth-year students in teacher education. The effects of the digital nudges aimed on the support of self-regulation will be established within the followed education-course (short-term effects), in a different education-course after a few weeks and also in the first year in teacher profession (long-term effects).

TARGET AUDIENCE

The target audience are higher education professionals interested in the (digital) support of students' self-regulation and blended learning. The participants will be encouraged to discuss the design principles for digital nudges to support students' self-regulation in a blended curriculum for higher education. Ideally, participants have some prior knowledge about ways to support self-regulation in (blended) higher education. Attendees are interested in how self-regulation can be supported in a digital learning environment.

ORGANIZATIONAL REQUIREMENTS

A screen is required during the session for a PowerPoint presentation and to present the designed digital nudges. Audio and WIFI are required. Both the online participants and the f2f present participants will be asked to join an online session in which they can give written responses to the questions asked during the discussion. Based on these written responses, attendees can verbally clarify their opinion and together discuss the topic. The desired number of attendees for both online and f2f is twenty in total.

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