

Mental wellbeing of first-year economics students: The effect of a game-based orientation day

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The mental wellbeing of higher education students is of tremendous importance, both in terms of academic research as well as regarding policy initiatives. First-year students, in particular, are considered highly susceptible to psychological distress (Auerbach et al., 2018); consequently, they might benefit from additional support in their transition from secondary to higher education. Scholarly research has underlined the universities' responsibility to create an inclusive sense of community and to promote social activities among students during this transition period, by means of effective orientation activities (e.g. Brooman & Darwent, 2014; Myrtveit et al., 2017). More specifically, gamification of university orientation activities has been demonstrated to stimulate students to create social connections and to explore the campus (Bürgisser et al., 2018), as well as to increase the effectiveness of information transmission (Denny et al., 2018) and the learning satisfaction of higher education students (Murillo-Zamorano et al., 2021).

The current study investigates the effects of a game-based orientation day on the mental wellbeing of first-year university students in economics and business administration, by means of quantitative survey data (N = 1850). The design and features of the interactive orientation day initiative – organised by the Faculty of Economics of a large Belgian university – are deliberately established on the basis of the multidimensional Framework for Enhancing Student Mental Wellbeing in Universities of Baik et al. (2016). The quasi-experimental design of the present study comprises two years of data. In September 2019, the game-based orientation day was implemented in one first-year study programme (business economics, N = 464), whilst students of a very similar first-year study programme got offered a more traditional, lecture-based orientation day and thus served as a control group (business administration, N = 488). In September 2020, the game-based orientation day was organised in both study programmes (N = 448 for the business economics sample and N = 450 for the business administration sample). The study design enables to investigate the effects of a game-based orientation day across comparable student samples, as well as across two years of data, while considering the students who participated in the lecture-based orientation day as the control group. Table 1 offers an overview of the main characteristics of the game-based orientation day (experimental treatment) and the lecture-based orientation day (control treatment) format.

The effects of the game-based orientation day were measured in terms of the first-year students' mental wellbeing, academic self-confidence, feeling of informedness, and satisfaction, at the moment of the orientation day. ANCOVA analyses offer evidence that students who participated in the game-based orientation day reported significant higher levels of mental wellbeing, of academic self-confidence, and of satisfaction with the orientation day, compared with the control group. Furthermore, longitudinal data analyses indicated a decline

in mental wellbeing after three weeks – which is consistent with previous literature (e.g. Conley et al., 2014) – among all student samples. Nonetheless, this decrease was significantly smaller for students who participated in the game-based orientation day format.

Hence, a gamification approach of orientation activities designed for first-year university students is characterised by a multidimensional added value. The success of the game-based format manifests itself in a greater satisfaction and a more adequate informedness of the participating students, in comparison with a not-interactive lecture-based format. Additionally, the game-based orientation day supports and strengthens the students' academic self-confidence, as well as their mental wellbeing in both the short and medium term. The insights gained from this study provide for recommendations on future orientation activities aimed at first-year higher education students. However, the first-year students targeted by this study still experience a decline in their mental wellbeing after three weeks of academic courses. Therefore, this initiative should be complemented by other interventions that are intended to support mental wellbeing, as a part of universities' long-term student wellbeing strategy.

Table 1 Characteristics of the control treatment and experimental treatment

	Lecture-based orientation day	Game-based orientation day
<i>Main format</i>	Plenary presentation	Small groups of students in a game
<i>Location</i>	Large auditorium in the faculty	Across the entire faculty building
<i>Contact with staff</i>	One-way formal communication by staff	Informal student-staff interaction
<i>Peer interaction</i>	No informal moment to talk to peers	Working together with peers
<i>Attending staff</i>	The dean, one student counselor, one student representative	The dean, student counsellors, student representatives, administrative staff, professors, teaching assistants, researchers, senior students, library staff, tutors, communication department staff, ...
<i>Information transmission</i>	All information in one slideshow	Information divided into circa 10 different information booths
<i>Information processing</i>	Students passively acquire information by listening	Students actively look for information and experience the university look-and-feel

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