

## Editorial for EJEL Volume 18 Issue 5

The current covid-19 pandemic changes so many things in our everyday lives, how we work, how we study and learn. As we are writing this editorial in the midst of the second wave, many learning institutions and organizations turn to the lessons learned from the first lockdown. No doubt much can be learned from this lockdown, from this rapid and grand scale implementation process, and from the many studies that now surface from this period, and that suggest important factors to contemplate. However, it is also clear that a lot of the implemented teaching and e-Learning processes were “emergency setups” that often did not utilize what technology-supported learning can, and where many learning design teachers, participants and students were in an emergency state of mind. Hopefully, we are able to move to a better situation, with the arrival of several vaccines. In a more normalised world, it is likely that many would like to continue the exploration into more sustainable e-Learning processes. Here, it is equally or perhaps even more important to address the profound and rigorous research carried out for years by e-Learning researchers all over the world, in varied contexts and different pedagogical settings.

The Electronic Journal of e-Learning (EJEL) and the 18th European Conference on e-Learning 2019 (ECEL) represent one of the many communities where such knowledge can be found. Both might act as an inspiration now, and for future considerations, when e-Learning can be an explicit choice, and not solely a necessity. The EJEL format allows for open access to the publications. In this volume we represent a little snippet of the best research contributions presented at the ECEL 2019. The articles were collected by invitation, and the research has been further worked on, the articles improved and reviewed again prior to publication. In this EJEL issue we present 4 articles originating from ECEL 2019 contributions. Furthermore, this issue was completed with three additional articles from the regular EJEL editing process. In the following, the articles are introduced briefly.

How can online spaces be established for facilitating students’ joint inquiry activities in higher education? In an exploratory case study, Hautopp and Ejsing-Duun investigate how the use of visual facilitation and representations can create exploratory approaches to game design in online teaching. The course “Games for change” which is a part of the international Nordic Visual Studies and Art Education (NoVA) where students design games that address issues in society constitutes the empirical basis. The didactical design of the course comprises different problem-based learning (PBL) activities combined with teacher presentations of game theory, and exercises through videos and visualisations to support the students’ iterative game design processes. An analysis of the PBL activities showed that teachers’ video instructions relating theoretical game concepts to the students’ actual group work supported the introduction to the game field as well as their design processes. The authors conclude that the combination of inquiry approaches, critical game theory and design processes, combined with students’ visualisations and video productions, provides interesting connections for bridging gaps between cultures and professions, e.g. in art and games.

Barber’s article – the second of this issue – addresses that the ability to develop online communities that inspire critical and creative thinking has not kept pace with digitalisation, and suggests the developing of new approaches to teaching in online environments based on a pedagogical strategy called “Digital Moments”. The pedagogical strategy is a way for developing creative interactive online learning communities based on the Fully Online Learning Community model (FOLC) and a theoretical and conceptual ideal of a problem-based learning (PBL) environment. The main argument of the article is that creative and artistic expression in problem-based learning spaces enhances social presence and student engagement. Based on a case study of “Digital Moments” as a way to build inclusion in two synchronous graduate online courses, the author analyses how the teaching approach increased student participation, developed student ownership of learning, and encouraged collaborative processes between participants.

While Flipped Classroom (FC) approaches and Learning Analytics (LA) have for some time been significant to educational studies they have only recently been studied together. The third article by Algayres and Triantafyllou traces this connection through an extensive literature review based on 49 recent papers on FC and LA in higher education. Drawing on this material they argue that LA and FC can inform each other, as learning analytics can both support the development of FC as a way of learning and predict ways in which it can be used for best practices. LA in FC is, they show, dominated by STEM in higher education and uses a number of methodologies to create data and knowledge about student participation, engagement and self-efficacy. Results from the study

are positive as the authors suggest that LA has great potential for reinforcing the methodology and success of using FC in higher education. However, the review also underlines that there is a lack of in-class and long term research on LA in FC and that data mining may be lacking in depth with regard to determining student performance and learner experience. Currently, predictive and prescriptive analysis is therefore a significant area in which Algayres and Triantafyllou predict that LA will expand to support - for example - instant feedback and more adaptive learning experiences.

Using serious games in higher education is one way in which higher education may engage students in addressing the climate crisis and creating awareness of the challenges involved in developing energy efficiency and renewable energy in sustainable societies. In the fourth article of this issue, Ouariachi and Elving investigate these issues through a study of the *We-Energy Game*, which has been used among international students in higher education institutions in the Netherlands. The game can be played both on board and on screen, and allows students to choose and negotiate the energy sources they want to use in a specific location based on roles given in the game. The study is based on surveys pre- and post-gaming and on group discussions to create qualitative data on gaming. Results from the study show increased awareness among students of the urgency of being informed about energy transition and sustainability as well as ways in which students can make a contribution to these challenges. Using the *We-Energy Game* to create awareness and self-efficacy is therefore both relevant and in line with existing research on serious games; however, the paper also suggests that more research is needed to understand whether games can affect attitudes and behaviours related to the development of sustainable societies.

The fifth article is by Cecilia Temilola Olugbara and Moeketsi Letseka based at the University of South Africa in Pretoria (South Africa): "Factors Predicting Integration of E-Learning by Preservice Science Teachers: Structural Model Development and Testing" describes an analytical study of the factors that promote the integration of e-Learning into the teaching activities of preservice teachers. Methodologically, hypotheses are generated, and a survey is conducted among 100 preservice teachers. The survey results are processed in a structural path analysis using the partial least square structural equation modeling technique. The aspect "Skill" is confirmed as the most important factor for the integration of e-Learning in the South African context.

Josephine Lutaaya Najjemba and Johannes Cronjé, the authors of the sixth article are also located in South Africa, the first at the University of Free State, Bloemfontein and the other at the Cape Peninsula University of Technology, Cape Town. Their article is entitled "Engagement with and Participation in Online role play Collaborative Arguments: A Sociocultural Perspective" and examines the extent to which online role play influences literacy practices and attitudes on social issues. Methodologically, a sample of 20 pre-service students was studied in both online and face-to-face sessions, again using qualitative methods. Among the findings is that the environment provided was very conducive to learning for the learners, which also promoted own activities and critical thinking among the learners. Based on further findings, this article may also serve as inspiration for the design of own activating learning activities.

The final article by Ying Xiu (University of Illinois Urbana-Champaign, USA) and Penny Thompson (Oklahoma State University, Stillwater, USA) introduces video discussion posts. In their article "Effects of Video Discussion Posts on Social Presence and Course Satisfaction", the authors depart from the premise that videos, in comparison to texts, can convey more information, for example through gestures and facial expressions, and that as a result social presence as an important component of learning processes might be strengthened. The study is able to prove a correlation between satisfaction with the course and perceived social presence but does not provide evidence that increased social presence can be achieved through video discussion posts compared to the control group. Thus, in addition to the inspiration for own learning activities, the study also raises the need for further research into possibly counteracting effects, such as those that may result from too large freedom of anytime/anywhere flexibility.

Journal Editors

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