Editorial for EJEL Volume 19 Issue 3

Dear readers of the EJEL,

The previous issue of the EJEL highlighted the impact of the COVID19 pandemic on development and relevance of e-learning. However, e-learning continues to evolve independently of the pandemic at a very fast pace, as is reflected in this issue, which includes ten articles covering a range of topics such as collaborative e-learning, digital literacies, problem-based e-learning and e-learning design, to mention a few.

In the first article, Sultan Alyahya and Asma Aldausari from the Department of Information Systems, King Saud University, Saudi Arabia, describe the development of a digital collaborative learning environment for preparing standardised tests. They recount the entire development process starting with a review of the available technologies and including the evaluation of the platform created. The evaluation demonstrates the supportive effect of the learning environment in many dimensions of the learning process, be it the participative, the cognitive, the interactive, or the social dimension.

Alaa Zuhir Al Rawashdeh and his colleagues from Ajman University, Ajman, UAE, from Al Balqaa Applied University, Jordan, Ain-Shams University, Egypt, and from Clemson University, USA, describe the advantages and disadvantages of e-learning from the perspective of higher education students in the United Arab Emirates in the second article. Their findings based on a survey of a random sample of 100 students suggests that learners' understanding of the advantages and disadvantages of the e-learning environment is important for the effectiveness of their learning.

In the third article Yehuda Peled and her colleagues Gila Kurtz, and Orit Avidov-Ungar from Western Galilee College, Holon Institute of Technology, and Achva Academic College, Israel developed and validated an inventory of digital literacy skills required in the learning process. Seven subscales are determined using 54 items and validated using structural equation modelling and factor analysis techniques. The inventory might be suitable for assessing teachers' competencies with the use of e-learning tools.

Rikke Ørngreen—who is a former chief editor of the EJEL and whom we would like to greet cordially on this occasion—, Sara Paasch Knudsen, Ditte Kolbæk, and Rune Hagel Skaarup Jensen from Aalborg University Denmark, investigate to what extent Moodle supports problem-based learning (PBL) scenarios. For this purpose, a literature based qualitative analysis of the features of Moodle and the requirements of PBL scenarios is conducted. This is followed by a survey distributed to 345 students, asking them to identify their favourite Moodle course. The resulting courses have then been evaluated qualitatively. The findings indicate that Moodle is mostly used as a distribution platform of learning materials. As this is at odds with the university's overarching PBL approach the authors recommends several ways to mitigate this misalignment.

In the fifth article, Daniel Bumblauskas of the University of Northern Iowa, USA, and Nick Vyas of the University of Southern California, USA, revisit the PBL approach. The authors argue that e-learning and PBL have emerged as a viable and complementary combination during the COVID pandemic. Using the PBL principles, the authors substantiate this approach by examining a Statistical Process Control module delivered online. The online learning scenario is found to be interactive, conducive to learning, especially to learning of critical thinking skills, and enhancing the learning experience overall. Furthermore, the article suggests that online-supported PBL is a powerful means of advancing the quality of teaching.

The PBL approach is also the topic of the eighth article by Orit Avidov-Ungar (also one of the authors of the third article), and by Dina Tsybulsky from Achva Academic College, Israel. Both authors examine the extent to which participation in an online course using PBL as part of a Master's degree in a teacher education programme shapes participants' roles as future "digital age teachers". The analysis of quantitative and qualitative data collected over a three-year period shows that this form of experiential learning is very helpful in developing learners' understanding of their future teaching roles.

While purposive design of learning scenarios is important for the success of e-learning, attention must also be devoted to more fundamental characteristics of e-learning, such as participants' listening comprehension, which

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is a topic examined in the sixth article. The team of authors, led by Nikesh Bajaj, from Queen Mary University of London, UK and the University of Genova, Italy describes how semanticity, sentence length and noise level influence the auditory attention of non-native speakers in e-learning environments. The results indicate that the effects of semanticity disappear in noisy environments, while increasing sentence length has a negative impact on listener's attention. Overall, the results emphasise the importance of linguistic and auditory factors for effective e-learning design, especially in the institutions aiming to attract more international students.

Design characteristics of e-learning media are also the subject of the seventh article in this issue. Marketa Rickley of the University of North Carolina, USA and Pavlina Kemp of the University of Iowa USA examine the impact of professional production of video lectures on learning outcomes and student perceptions. Video lectures produced by the lecturer are compared with video lectures produced in a studio in collaboration with instructional designers. The latter are found to have a positive influence on students' perceived learning and have led to a very slight improvement in their satisfaction. The results confirm again the importance of the careful design of e-learning media for successful learning.

In the ninth article, Magdi Amer (Cognizant Digital Engineering) and Hossam Aldesoky (The Higher Institute of Social Work, Cairo, Egypt) introduce software for personalised learning of mathematics. The tool records the activity of the student, and deduces their level of knowledge and their misconceptions in order to make recommendations for the next tasks to be solved. The software aims to prevent creation of psychological barriers based on acquired misconceptions that may prevent the students from understanding more complex mathematical concepts.

The use of nuclear power is often the subject of intense society-wide debate. The tenth and final article by Lynndle Square, Valentino Van der Heyde, and D. Smith (University of the Western Cape, Bellville, and North-West University, Potchefstroom, South-Africa) draws on this topic in a national context to examine the educational use of online discussion forums as a venue for evidence-based discourse. A Reference Register is used to monitor the frequency and quality of evidence sources used for argumentation. In addition to the domain-specific learning objectives on nuclear power and its social and economic implications, cross-disciplinary learning objectives such as a structured fact-based scientific discussion are achieved.

We believe that these ten articles will contribute to a continuation of a fruitful global discussion on the shaping of e-learning in the years to come. We hope that the article will provide the readers with some inspiration for their own work, and we are eagerly awaiting your new submissions, especially those which are critically reflecting on the current e-learning implementations.

Journal Editors,
Heinrich Söbke and Marija Cubric