

EDITORIAL

Improving Learning through DOL: The Importance of Instructional Design and Student Engagement

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Introduction

Further development and expansion of open distance and online learning (DOL) and blended learning has been possible due to significant research in the areas of instructional/learning design (based on various learning theories) and how learners engage in authentic activities in the contexts of both individualised and collaborative learning. The recent analysis by Molenda (2023) and the analysis by Martin and Bolliger (2023) should be useful reads in this regard. A significant component of any instructional design or learning design for DOL is engagement of learners in self-directed and reflective learning in both individualised and collaborative learning contexts. There are well-researched theories of learner engagement, the most prominent being the Community of Inquiry framework of Garrison, Anderson and Archer (2000) encompassing teaching presence, social presence and cognitive presence especially in asynchronous online learning environments. Further explanation to engagement at macro, meso and micro levels was given by Bond (2019) in which learning was assumed to occur within a given socio-cultural context.

The papers included in the current issue of this Scopus-indexed journal (*JL4D*) address primarily these two important aspects of DOL — instructional/learning design, and learner engagement in learning in diversified national, institutional and socio-cultural contexts.

The eight peer-reviewed papers in the *Research* section primarily focus on pedagogy of digital learning and micro-learning, digital content and blended learning, personalised learning, online assessment, and online tools and platforms for student engagement, reflection and satisfaction. In the first paper, the research by Balasundaram, Mathew and Nair found that the pedagogy of micro learning had a positive effect on student learning outcomes and engagement in learning. In the second paper, Senadheera, Ediriweera, and Rupasinghe reviewed research in instructional design models and suggest that application of a systematic process in instructional design contributed to effectiveness in digital teaching-learning. Mann and Malhotra, in the third paper, report the findings of a bibliometric analysis on student readiness for e-learning which suggested an increasing trend in this condition for e-learning, and that the process has been hindered by lesser collaboration between institutions and researchers.

In the fourth paper, Pitorini, Suciati and Harlita report that e-modules on environmental science designed on the basis of problem-based learning and Socratic dialogue, significantly contributed to active learning and development of student critical thinking skills. The effectiveness of interactive content on Moodle LMS, specifically with H5P (HTML framework version 5), in the context of the rotation model of blended learning, has been reported by Rahmi, Fajri and Azrul. The authors suggest its effectiveness in student engagement, knowledge and



satisfaction. In another paper on learning satisfaction in online learning, Suryanto, Oktarina and Tusyanah studied social presence in online learning and the effects of course structure, student interaction and self-regulation on student satisfaction. The research concluded that mediation of social presence contributed significantly to the effect of exogenous variables of student interaction and self-regulation on the endogenous variable of student satisfaction.

In the seventh paper, Lobo and co-authors report that in physical education, perceived ease of use of videoconferencing had a positive effect on perceived usefulness, which in turn positively affected the behavioural intention to use the synchronous conferencing platform. In a study on high school students, Hidayat reports that students who used AI-based personalised reading platforms scored higher in reading comprehension than those who did not, and that teachers should consider this teaching strategy to enhance the reading skills of students.

There are three *Case Studies* in this issue, and they focus on instructional formats, online assistive technology for skill development, and case-based learning. In the first case study, Syahbrudin reports the findings of a study on the relative effectiveness of F2F learning, online learning, and blended learning as perceived by postgraduate students. The findings showed that while all the learning formats were perceived convenient by the students, online learning was preferred the most, provided there was institutional provision for adequate technology and internet access and access to learning resources. Nguyen, in the second case, reports that website builder as an assistive technology had a positive effect on students' reflective learning, collaborative learning, and skills development in the case of English for specific purposes (ESP). Tambak and Sukenti, in the third case study, report the results of a research study, which indicate that case-based learning through hybrid learning practices significantly contributed to improvement in the teaching skills of madrasa teachers.

The three *Reports from the Field* discuss, respectively: effectiveness of SolarSPELL offline videos in enhancing information literacy; role of cognitive alignment in teaching-learning in higher education; and the European approach to micro-credentials in adult education. In the first paper, Paget reports the effectiveness of offline videos in English (to be later added in Arabic, Spanish and Swahili) in contexts where the internet was not available; and that this led to the creation of a digital offline course for enhancing the digital and information skills of the users. In the second report, Senadheera and co-authors strongly argue for the educational approach of 'connective alignment' (besides the widely used approach of 'constructive alignment') for teaching-learning in higher education in this digital age. Ivan Šarčević, in the third report, analyses the potential of micro-credentials within the policies and initiatives of the European Union concerning adult education. Citing the national context of the republic of Serbia, the author argues that, while micro-credentials are not substitutes for the national education system, there is a need for more pragmatic approach to skills development within the given policies.

The *book review* on *Instructional Story Design* by Rance Greene, reviewed by Kris Watterson, and edited by Mairrette Newman should be of interest to our readers.

The papers included in this issue of the *Journal* suggest that, generally, technology use in education and training contributes to effectiveness in teaching-learning and training. DOL is moving more towards the use of blended learning, digital platforms and tools for teacher and learner support, and increasing the use of micro-credentials and micro-learning.

More research needs to focus on individual differences in prior experiences, cognitive structure and learning styles in their contribution to enhancing the quality of learning and teaching in online and blended contexts; so, also on the relationship of individual personality

dispositions like open-mindedness, intellectual curiosity and critical perception with critical thinking in e-learning. Student satisfaction has emerged as the most important variable in the quality of digital learning; therefore, more research is needed on how the exogenous variables contribute to this endogenous variable of student satisfaction in contexts of cognitive, teaching and social presence in e-learning.

I take this opportunity to sincerely thank Dr Tony Mays, Dr Jako Oliver, Dr Mairette Newman and Alan Doree for facilitating this issue being published on time. We hope our readers enjoy reading and reflecting on the papers and book review of this issue.

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