
Editorial

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Welcome to V15N2 of *IJLT*: this issue has four papers. The first paper is ‘Usability and gameplay evaluation on mobile games: a user-centred application proposal’ by Débora Barbosa, Guilherme Schneider, João Mossmann and Paulo dos Santos. This paper presents a method to evaluate usability and gameplay efficiency for educational games developed for children. It includes a case study involving the game ‘Corrida Gramatical’ developed for cancer treatment, and also a group study of a cognitive stimulation game ‘The Incredible Adventures of Apollo and Rosetta in Space’. The participants of the research for the first game were patients aged 10 to 15 years old undergoing oncological treatment, which collaborated to the research ‘learning with mobility’ developed with AMO. For the second game, participants were from 7 to 11 years old.

The results from these authors show that it is possible to evaluate the usability and gameplay with the proposed method and that the methodology is suitable to support the development of mobile educational games considering the research scenarios. More empirical studies are needed to verify the results, given the small sample size of both studies.

The second paper is ‘Measuring the influence of hedonic value, social presence and teaching presence on students’ cognitive presence through the implementation of the smart classroom’ by Seuk Wai Phoong, Seuk Yen Phoong, Sedigheh Moghavvemi and Ainin Sulaiman. This study investigates the effectiveness of technology usage (smart classroom) on students’ cognitive presence while elucidating the hedonic aspect of technology usage in the context of teaching and learning. It utilises the community-of-inquiry (CoI) framework as its foundation, and it was validated using the observance of students in smart classrooms. The CoI framework emphasises the development of an online learning community via an instructional conversation that is likely to lead to epistemic engagement. The framework views the community as vital for collaborative learning. It models detail the behaviour and necessary processes for nurturing knowledge construction and building, and the effectiveness of an online learning community in the context of collaborative works between social, teaching, and cognitive presence, all of which are highly intertwined.

The experiment was conducted among university students. According to these authors, the results show that social presence, teaching presence, and hedonic value are significant determinants of cognitive presence. They reported a positive and robust relationship between teaching presence, social presence, and hedonic value with that of cognitive presence. The students in a smart classroom reported higher cognitive presence. However, more in-depth experimental research is needed into how teachers reconcile

technology, social presence, teaching presence, cognitive presence, and educational goals.

The third paper is ‘Authoring mobile tool for improving cursive handwriting learning/writing skills’ by Hala Bezine. The author in this paper argues that mobile phones offer a new way for designing pen-based user interfaces for supporting learning handwriting activities and, thus, bringing about major contributions to education. This paper conducted an empirical research method to investigate the effectiveness of smartphones in terms of helping students learn Arabic vocabulary in a natural environment, i.e., educational software technology with mobile aspects. The authoring tool used is called Mobile Learn to Write Interactive Tool Kids ‘MLWITKids’ for tutoring of handwriting. In this study, the author attempts to identify the critical user interface design features of handwriting learning programs for preschool students by exploring the relationship between the performance and psychomotor abilities characteristics of preschool students and investigating the instructional features for these students.

According to the author, the results of this study provide sound evidence that pen-based interface is an effective, feasible and welcomed strategy as far as handling psychomotor and behavioural issues in the educational domain is concerned. However, more research is needed to verify such study. The sample size is too small and must be extended. Secondly, this study is only applicable to Arabic language. There may be different problems with the learning of other languages.

The fourth paper is ‘Computational thinking and interdisciplinary learning: time to focus on pedagogy’ by Michael Vallance and Phillip A. Towndrow. These authors argue that to prepare students in this present age, computational thinking has been championed as a new way of studying computing. They argue that computational thinking is something people do, not computers. They further pointed out that computational thinking involves reasoning, applying, understanding and learning. Fundamentally, it is thinking about abstractions, algorithms, systems, processes, objects, problems, solutions, and collections of data and information: the features and functions that now play a prominent role in our modern technological daily lives, whether we are aware of them or not.

Vallance and Towndrow further argue that the implementation of computational thinking at all education levels within and across subject domains and disciplines requires a re-evaluation of teaching and learning. The aptness of task design in relation to the purposes of learning is therefore a crucial first step. Teachers and learners will need to adapt their approaches to include more open-ended tasks when appropriate and necessary. Yet, in all task-designs, teachers and learners not only need to know *what* to do and *how* to do things, but also be prepared to explain *why* they have chosen their particular modes of operation in specific circumstances. These authors believe that a radical reconsideration of computational thinking motivated task design and pedagogy have the potential to form linkages between disciplines and subject-based domains where other ideologies may have tried and failed.