
Editorial

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Di Zou is an Assistant Professor at The Education University of Hong Kong. Her research interests include technology-enhanced language learning, game-based language learning and flipped classrooms. She is an Associate Editor of the *Australasian Journal of Educational Technology* and Editorial Board Member of the *International Journal of Mobile Learning and Organisation*. She has approximately 100 publications in international journals, conferences and books, including *Computers & Education*, *Computer Assisted Language Learning*, *Language Teaching Research* and *Studies in Higher Education*.

Gary Cheng is an Associate Professor of the Department of Mathematics and Information Technology at The Education University of Hong Kong. He has a proven track record of exploring and evaluating the use of emerging technologies to enhance teaching and learning. He has also devoted himself to organising events and activities to promote coding, STEM and AI in Education, such as Workshop and Seminar Series on Big Data/AI with Applications to Education and Beyond (2020) and International Conference on Education and Artificial Intelligence (2020). His research interests include information

technology supported L2 learning, ePortfolio-mediated learning, computer programming education, online learning management system, e-assessment and learning analytics.

1 The mobile era

Mobile learning has been one of the most popular research topics in the past decade. With mobile devices, students can learn anywhere, anytime, and teachers can effectively contextualise the teaching and learning content and provide real-time scaffolding in a wide range of ways (Chung et al., 2019; Hwang and Wu, 2014). Researchers and practitioners have applied mobile technology to enhance the teaching and learning of various subjects, including sciences (e.g., Hwang et al., 2009; Hwang et al., 2011), social sciences (e.g., Chiou et al., 2010), and language (e.g., Ogata et al., 2009; Thornton and Houser, 2005). The current literature generally indicates that mobile devices and mobile technology can promote active learning, increase learning motivation, and enhance learning experiences (Chang and Hwang, 2019; Chen et al., 2020a).

2 Intelligent language acquisition

Language acquisition (or language learning), undoubtedly, serves as one of the most fundamental processes for people to foster a meaningful understanding of the world around them and further enable them to interact with the world (Chee et al., 2017). With technological development, various mobile systems and tools have been developed to assist people with language acquisition (Chen et al., 2021a). It is noteworthy that the widespread use of these systems and tools not only facilitates people to learn different languages but also enables researchers to collect an unprecedented amount of learning data generated by these language-learning students during their learning process (Chen et al., 2020b; Chen et al., 2021b).

This special issue explores potential research efforts to support intelligent language acquisition in the mobile era. It includes seven articles.

3 Overview of the papers that contributed to this special issue

In the first paper, Su and Zou discussed using Duolingo, a mobile application, for English learning. They investigated the learning experiences of three Chinese working adults who were respectively at the basic, intermediate, and advanced English proficiency levels. The results showed that all three learners benefited from using this application, and Duolingo promoted self-regulated learning effectively.

In the second paper, Gulzar et al. conducted a bibliometric analysis of mobile learning research from 1984 to 2020. The bibliometric analysis results of the 7404 publications indicated that (1) most of the published studies on mobile learning were conference proceedings and journal articles, (2) researchers from China, Indonesia, the USA, and Spain contributed most to mobile learning research, (3) mobile learning was a

significant research area, and (4) it could provide students with interactive learning environments.

Chen et al. also conducted a bibliometric analysis in the third paper. They investigated the publications in *Interactive Learning Environments* in the past 30 years. The results indicated that educators used different applications and technologies (i.e., intelligent tutoring systems, concept maps, digital games, e-books, interactive response systems, digital storytelling, and augmented reality) in education. Such uses could assist students in flipped learning, create personalised learning environments, and conduct project-based learning. The results also revealed that popular topics for interactive learning environments include learner emotions, cognitive load, and acceptance of technologies.

In the fourth paper, Kohnke investigated student perspectives of chatbot use during emergency remote teaching. The chatbot was developed using Dialogflow Messenger. The results showed that the chatbot could support learning by providing students with human-like interactions. It could also enhance students' sense of engagement and ease their sense of isolation.

In the fifth paper, Chen et al. proposed a reading engagement-promoting strategy to help learners of English as a foreign language. It investigated these learners' mobile learning achievement, behaviours (i.e., frequency of markers, the number of words, and usage patterns), and engagement (i.e., time spent reading and learning). The results indicated that the proposed approach effectively improved students' learning achievement and enhanced high achievers' engagement.

In the sixth paper, Kossingou et al. developed an API framework Rasa chatbot using Rasa NLU, Rasa Core, and Python's programming language. This chatbot aimed to help students in the Central African Republic during the COVID-19 pandemic. The results indicated that it could provide professional and specific help and alleviate the problems caused by the pandemic.

In the seventh paper, Xie developed and evaluated an online database of English assessment tasks for developing student teachers' assessment literacy. A total of 92 student teachers participated in the research. They developed, annotated, and evaluated assessment tasks. The results showed that they held positive attitudes towards this project.

4 Conclusion

With educational technology and artificial intelligence development, education in the mobile era is becoming increasingly intelligent (Chen et al., 2021c). In this special issue, we have discussed the use of mobile applications, intelligent tutoring systems, interactive learning environments, chatbots, and an online database in education. Researchers and practitioners may find this special issue helpful for understanding, implementing, and evaluating intelligent language acquisition.

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