GUEST EDITORS’ INTRODUCTION

SPECIAL ISSUE “MOBILE, UBQUITOUS, SEAMLESS AND CLASSROOM LEARNING ENVIRONMENTS”

We are delighted to deliver the special issue on Mobile, Ubiquitous, Seamless and Classroom Learning Environments. Seven papers were submitted from Hong Kong, Japan, Singapore, Taiwan and United Kingdom in total, which were mainly presented in CUMTEL (Classroom, Ubiquitous, and Mobile Technologies Enhanced Learning) subconference at ICCE (International Conference on Computers in Education) 2012 in Singapore. After a vigorous reviewing process that at least two reviewers together with a Guest Editor reviewed each submission, six papers were finally selected for publication in the special issue.

The first paper by Lee and Wei, Child-Computer Interaction Design and Its Effectiveness, reports the design and implementation of three different interaction modes: (1) embodied interaction using Kinect, (2) tactile interaction using iPads and (3) multimodal interaction using Kinect and iPads in Taiwan’s preschools. Findings show that the CCI enhances problem-solving and that pairing comparisons of the CCI are significantly correlated. Also the advantages and disadvantages of the Kinect and the iPad for young children are presented.

The second paper by Jones et al., Challenges in Personalisation: Supporting Mobile Science Inquiry Learning across Contexts, investigates issues for developing personalized inquiries in science, in both more traditional classroom contexts and in the less formal environment of an after school club. This paper describes the authors’ experiences working alongside one school over three years, iteratively developing their nQuire toolkit and pedagogical support across inquiries. They conclude that technologically supported personal inquiry is indeed possible and works, even within the school curriculum.

The third paper by Jong, Design and Implementation of EagleEye — An Integrated Outdoor Exploratory Educational System, is oriented to capture the perception of a system (EagleEye) for supporting students and teachers in pursuing and facilitating exploratory learning in outdoor fieldtrip activities. The relevant aspects that support the design of the application were extracted from the perception of six senior secondary students and six secondary teachers who identified the main problems associated with exploratory fieldtrip learning instances. This paper indicates Jonassen et al. (2003) framework of “meaningful learning with technology” as a foundation for shaping the design and implementation of EagleEye.
The fourth paper by Nakaya and Murota, *Development and Evaluation of an Interactive English Conversation Learning System with a Mobile Device Using Topics Based on the Life of the Learner*, proposes the design and development of mobile technology with the three features: applications that learners can use anywhere and anytime, topics based on the interests and lives of learners, and pseudo-interactive and agreeable English conversation. The evaluation shows that the topics-based and lives of learners might be effective for English speaking and that English practice with pseudo-interactive and agreeable English conversations might be effective for evaluating oneself to speak more fluently.

The fifth paper by Koh, Loh and Hong, *A Snapshot Approach of a Smartphone-enabled Implementation*, proposes snapshot approach based on snapshot theory using smartphones, which consists of infrastructure snapshot, advanced infrastructure snapshot, functional snapshot and example snapshot. The evaluation was conducted in the Primary 3 English Language curriculums. This paper shows that the students had higher academic achievement with the smartphone-enabled curriculum compared to the worksheet-based curriculum. The example snapshot identifies possible reasons including blind practice and the fostering of word consciousness.

The final paper by Mouri et al., *Learning Log Navigator: Supporting Task-based Learning Using Ubiquitous Learning Logs*, describes “learning-log navigator” that recommends tasks to speak and listen Japanese language, and then guides the learner to carry out the assigned task. The task is defined by the other learners based on their learning experiences. The recommendation of task is based on the learner’s location, the task’s location, the learner’s skill level and the task’s difficulty level. The evaluation shows that overseas students are actively learned Japanese language by doing tasks.

We believe these papers offer a snapshot of our current understanding of the role of classroom, mobile, ubiquitous and seamless technologies in formal and informal learning environments. We are sincerely grateful for the special issue reviewers for their professional service. We would also appreciate the RPTEL Editor-in-Chief, Siu Cheung Kong, for giving this opportunity and for his advice.

Hiroaki OGATA & Tzu-Chien LIU

Guest Editors