

Guest Editorial Preface

Special Issue of GLoCALL 2015 and 2017 Conference Papers: Applications of Technology in Diverse Educational Settings

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This special issue comprises selected articles from the GLoCALL 2015 and GLoCALL 2017 conferences which were jointly organised by PacCALL.org and APACALL.org. The 2015 conference was organised jointly with KAMALL (Korea Association of Multimedia Assisted Language Learning) from 12th to 14th November 2015 at Pai Chai University, Daejeon, Korea, whereas the 2017 conference was jointly organized with PCBET Conference (The 2nd Professional Communication, Business, Engineering and Technology) at Universiti Teknologi Brunei (UTB) from 7th to 9th September 2017. GLoCALL have been organising a yearly conference since 2007 to share knowledge, research and experiences to various parts of the Asia Pacific region, on how to use technology to enhance language learning and to explore how technology can be adapted to meet the needs of language learners in a variety of contexts. In view of fact that the two conferences were collaborative efforts with local hosts whose concerns were not necessarily language learning, this special issue will cover the applications of technology in all educational settings. Specifically, this special issue presents six carefully selected papers covering a range of topics on technology use in diverse educational settings. The first paper discusses the importance of engaging with technology in Korea and the second explores how a transformative Teacher Professional Development (TPD) model engenders technology integration. The third paper compares the effectiveness of three kinds of alternative approaches in rating ESL (English as a Second Language) essay using a learner-corpus-based analysis. The fourth to sixth paper looks into usefulness of specific technology applications. They investigate the impact of Augmented Reality, electronic lectures and social networking sites on various aspects of student learning respectively.

The first article in this collection entitled “On being earnest: The importance of engaging with technology in education” was written by Thomas Webster. In this article, the author observed that although Korea is a country with one of the highest pervasiveness of technology, the use of technology in higher education settings is, however, scarce and generally ineffective. There also seems to be a universal acceptance of this state of affairs among educators and a general apathy towards the need to educate themselves and their students towards applications of technology for the enhancement of learning. In his paper, the author unpacked the most prevalent barriers to technology integration in Korea and discussed the importance of digital literacy as the basis of a holistic approach in education for Korean universities. One of the barriers he pointed out was a lack of reliable resources, training and professional development which resulted in a lack of motivation among teachers to initiate technology use (Webster, 2011). He further discussed the far-reaching repercussions of these oversights, not

only to English teachers but to education in general, and more importantly to the future of the socialization of the Korean society. To combat this situation, the author proposed a new theoretical approach to promote a more culturally holistic engagement with technology at Korean universities and in education in general.

The second article by Lee Kean Wah and Cynthia James explored the effectiveness of Transformative Teacher Professional Development (TPD) model in promoting technology integration in the language classrooms. To motivate a group of ESL ‘digital immigrant’ teachers to integrate technology in the classrooms, a Professional Learning Community (PLC) comprising pre-service teachers (digital natives) and in-service teachers (digital immigrants) was set up. To provide these teachers with the opportunity and platform to exchange ideas, learn from each other and collaborate, a series of technology-integrated sessions based on the PLC model was conducted. However, there was no trainer present; only a facilitator was provided. These sessions adopted the TPACK-IDDIRR instructional design model (Introduce, Demonstrate, Develop, Implement, Reflect, Revise) to develop technology-based lessons for the classrooms. The TPACK model as described by Mishra & Koehler (2006) was adopted for their study. The teachers were first introduced to the TPACK framework and technology-based lessons through samples and demonstrations. They were then given the opportunity to design their own technology-based lessons and develop tools that can support lesson delivery. The paper investigated the effectiveness of the IDDIRR-TPACK + PLC model, along with a supportive PLC environment and the presence of more knowledgeable peers (MKO) in enhancing technology integration and TPD. The data for this study were collected through surveys, interviews and written reflections. The survey data were descriptively analysed using SPSS Version 24, while the reflection and interview data were assessed using thematic analysis. The findings from this study suggested that teachers view the professional development sessions, which provided them a safe and conducive learning environment, positively as they help them to integrate more technology in their English language classrooms. The results also pointed to the need for TPD to extend beyond the conventional face-to-face sessions.

In the third article of this collection, Shin’ichiro Ishikawa compared the effectiveness of three alternative approaches in rating L2 (Second Language learner) essay using a learner-corpus-based analysis approach. According to him the ESL Composition Profile (CP) (Jacobs et al., 1981) that has been widely used as rubric for learner essay evaluation is not user-friendly for L2 teachers. The approaches he proposed were (1) using the simplified version of the CP, (2) using edited essays, and (3) using model essays. The ICNALE (International Corpus Network of Asian Learners of English), which compiled topic-controlled speeches and writings of college students from ten countries and regions in Asia, as well as three types of English native speakers, was utilized in this study. The ICNALE comprised four data modules: Spoken Monologue, Spoken Dialogue, Written Essays and Edited Essays. For this study, Ishikawa employed the following sets of data: (i) Japanese learners’ original essays (N = 80), (ii) their fully and professionally-edited versions (N = 80), (iii) the CP-based partial / total scores given by the editors (taken from the ICNALE Edited Essays Module), and (iv) English native-speaker teachers’ essays (N = 88) (taken from the ICNALE Written Essays Module). A group of professional editors, who were native speakers of English, was enlisted to score learner essays based on the five criteria given in the CP using the same 1-12 scale. Then, the total score, reflecting the original weights was calculated. A variety of statistics methods was used to analyse the data. They included Pearson’s correlation coefficients (r), coefficient of the determination ratio (r^2), log-likelihood ratio (G^2), cluster analysis, correspondence analysis and multivariate stepwise regression modeling. His corpus-based analyses suggested that simplifying the CP and paying attention to the organization of learner essays to be the most effective approach.

In the fourth article, Au Thien Wan, Leong Yat Sun and Mohammad Saiful Omar investigated the use of Augmented Reality (AR) instructional materials in enhancing the learning of chemistry for Year 10 students in a secondary school in Brunei Darussalam. Prior to carrying out the experiment, the Learning Style Inventory (LSI) by R. S. Dunn et al. (1981) was administered on the subjects to

profile their learning orientation. The profiling helped the teachers understand better the learning preferences of the students in terms of modalities. A mobile AR application of instructional materials, which incorporate the aspects of Visual, Auditory and Kinesthetic (VAK) based on the Dunn et al.'s (1981) physiological stimulus, were developed for a Year 10 Chemistry lesson focusing on redox reaction using Vuforia SDK and Unity3d. The first objective of the study was to investigate whether there was a significant difference in learning outcomes of students who used AR technology and those who did not. The second objective was to find out if AR could leverage on the different learning styles of students. And the third was to elicit the opinions of the students on using AR in their learning. The study performed statistical analysis on the pre- and post-tests questions for both the control and experimental groups to determine the significance of the interventions and impact of AR instructional material on their learning outcomes. Qualitative analysis was also performed on questionnaires distributed to the students at the end of the lessons. The t-test ($t=-3.39$) of the mean scores in the post-test indicated a significant result ($p = 0.00152$) between the experimental (mean = 42.72) and control (mean = 26.36) groups. This showed that lessons introduced with mobile AR instructional materials has significant positive impact on the learning outcome. Qualitative analysis also indicated that AR improves students' interaction and participation.

The fifth article looked at another application of technology for student learning. David Hassell, Buddhika Hewakandamby and Lee Kok Yueh compared the effects of using electronic lectures/podcasts against traditional lectures on student learning at two campuses of the University of Nottingham. The campus based in the UK (UNUK) taught the module using a conventional "chalk-and-talk" approach whilst the Malaysian campus (UNMC) used electronic lectures/podcast to deliver the taught component of the module. The electronic lectures used in this study were generated using Tegrity lecture capture software (www.tegrity.com) on a personal computer. The software would display a video image of the lecturer (captured using the laptop webcam) along with audio commentary and the teaching materials. Each video lecture was between 15 to 30 minutes in length. The module had the same learning outcomes and taught content, and the same assessment (exam and coursework) was used in both campuses to measure the differences in effectiveness of the two approaches. The whole cohort of students from each campus participated in the research: UNUK; $n = 65$ students and UMNC; $n = 99$ students). The data were analysed using descriptive statistics and one-way ANOVA. The findings revealed that the mode of delivery had no obvious effect on the academic performance of the students for both coursework and exam components, however, the electronic lecture approach was found to have a negative impact on student attendance on campus. The authors claimed that this reinforced the view of Jaggars and Xu (2016) that students' expressed preference for technology use and does not necessary lead to better performance and that lower attendance may not be directly related to mode of delivery.

The final paper by Ng Lay Shi, Thang Siew Ming and Noorizah Mohd. Noor considered the effects of the usage of Social Networking Sites (SNSs) on informal Learning between Malaysian Students of different gender and age group. Since most Malaysian public schools do not allow students to bring their cell phones to schools, this paper only investigated learning that took place outside the school environment which was termed as "informal learning" by Livingstone (1999) and Marsick and Watkins (2001). A questionnaire survey was administered to 799 Form Two (14 years old) and Form Four (16 years old) students from three types of schools located in the Klang Valley and Selangor in Malaysia, i.e. an urban school, a sub-urban school and a rural school. The questionnaire data were analysed using SPSS (Statistical Package for the Social Sciences) version 17. Descriptive and inferential statistical tools were used to make comparisons across gender and age group. The findings revealed that on the whole over 60% of students spent less than 5 hours on SNSs. However, over 30% students spent over five hours on SNSs which would suggest 'excessiveness of use'. According to the authors this pattern would be problematic if a reasonable amount of time was not spent on learning activities. However, the findings were encouraging as it revealed a substantial percentage of students used SNSs for informal learning with the highest usage among age 16 female students (71.4%) and

the lowest usage among age 14 male students (42.9%). They surmised the findings revealed that Malaysian students have generally accepted the SNSs as an alternative learning environment with greater difference in usage between gender and less so between age groups.

GLoCALL has organised eleven conferences in various parts of the Asian Pacific region since its inception in 2007. Its mission is to share knowledge, know-how and experiences on the applications of technologies in learning especially language learning. It is also with this mission in mind that this series of special issues is published by GLoCALL yearly or biennially. The papers in this, written by authors from different countries in the Asia Pacific region, provide an insight into the applications of technology in diverse settings in the Asia Pacific Region.

These papers evince that teachers and educators in the Asia Pacific region are aware of the difficulties involved in promoting technology for learning as well as using technologies for a variety of purposes. The selected papers presented here only provide a glimpse of what the annual GLoCALL conference has to offer every year. However, it is hoped that after reading these papers, readers will be motivated to attend the GLoCALL conferences to discover for themselves the vast potential of technology in offering new frontiers, paradigms, experiences, as well as tools and resources in the field of CALL and education.

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