

Special Issue of GLoCALL 2021 Conference Papers

Technology Transforming Education: Issues, Contexts, and Environments

Editorial Team

Siew Ming THANG, HELP University, Malaysia

Peter GOBEL, Kyoto Sangyo University, Japan

Junjie Gavin WU, Shenzhen Technology University, China

This special issue, which comprises a collection of selected articles, explores the influence of technology on education, specifically on teaching and learning in a variety of contexts and environments. The articles for this special issue were expressly selected from the GLoCALL 2021 virtual conference which was jointly organised by PacCALL and the Faculty of Education, HELP University, Malaysia from 16-18 December 2021. This conference is part of the GLoCALL series of conferences organised yearly since 2007 to share knowledge, research, and experience on the use of 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.

This year's special issue is comprised of 13 articles focusing on issues of how technology is transforming education and changing the way we learn, along with the problems faced in the process. It also looks into issues regarding how technology empowers students' learning and to what extent it gives access, inspires, and challenges learners in diverse contexts and environments.

The first five articles explored the effects of learning through virtual or blended modes. In the first article, Deliang Man, Meng Huat Chau, Krishnavanie Shunmugam, and Nurul Huda Hamzah explored a language teacher's beliefs and practices in relation to assessment in online teaching. Based on qualitative data, the study showed that the teacher adapted her way of feedback during the pandemic and focused on the provision of emotional feedback to support her students. The paper also highlighted that teacher beliefs may not be well translated into classroom practices and contextual factors should be considered so as to augment online feedback practice.

In article two, Elis Johannes Hendry Salim, Priyadarshini Muthukrishnan, and Sailajah Nair Sukumaran jointly investigated the benefits and shortcomings of online teaching practicum during the pandemic era. Qualitative data were collected through semi-structured interviews with eight pre-service Malaysian teachers. Findings suggested a variety of opportunities and challenges experienced by these pre-service teachers, such as the lack of effective teaching strategies, obstacles in lesson planning, and insufficient online teacher-student interactions. Five pedagogical implications were put forward at the end of the paper to help teacher educators better design online teaching practicum.

In the third article, Meng Huat Chau, Esther Smidt, Paige Gardner, and Mazlan Mohd Tahir took a reflective look at an initiative in blended learning using the Community of Inquiry (CoI) framework in a Malaysian postgraduate programme. The initiative was proposed by a visiting scholar and was implemented in an intact curriculum as an additional module. Despite apparent success with the initiative, CoI was not extended to future semesters nor added to any future curriculum. The authors reflected on the lessons learned from this experience and the nature of sustainable innovation. Aspects of the entire initiative and the parties involved were selected and viewed through the lens of ecological thinking. The authors concluded that sustaining any innovation would require collective efforts from all stakeholders or parties concerned.

In the fourth article, Nguyen Nhat Quang, Pham Nhat Linh, and Nguyen Thi Thu Hien explored the effects of online task-based language teaching (TBLT) and task-supported language teaching (TSLT) on EFL learners' L2 motivational self-system (L2MSS) and speaking self-efficacy. Noting that an online emergency learning environment may be significantly different to conventional online or offline instruction, the authors investigated the relationship between these two instructional approaches (TBLT and TSLT) and learner motivation and self-efficacy. In this experimental design, 60 EFL students participated in a series of six tasks using the two instructional approaches. After each task student self-perceptions of speaking self-efficacy and L2 motivation were measured using a questionnaire. The results showed significant differences in speaking self-efficacy between the two task types, with TBLT having a positive effect on both self-efficacy and L2 motivation. The authors conclude with an examination of other factors that may affect motivation and self-efficacy, pointing to the complicated dynamic inherent in online emergency learning environments.

In the fifth article, Van Thinh Le, Tran Le Nghi Tran, Hoang Thinh and Diem Thi Ngoc Hoang examined how students interacted with their materials when online teaching was conducted during the COVID-19 pandemic through a survey and semi-structured interview at a university in North Vietnam. Materials were classified into three types: compulsory, recommended but not mandatory by teachers, and self-selected materials. 62 tertiary students who studied English as a compulsory subject took part in the study. The findings showed that the students did not engage in deeper analysis, such as analysing and creating similar materials as they perceived that they were able to understand the lessons with a low level of cognition. To them, obtaining reasonable scores was the highest motivation for interacting with materials. The study suggested that teachers should support students with instructions on how to interact with materials, and assess the process of their interaction with the materials.

The next three studies looked into the effects of technology in the form of podcasts, flipped teaching, and Schoology on student learning. In article six, Azran Azmee investigated whether podcasts helped learners develop listening comprehension and metacognitive awareness using the podcast entitled 'BBC Sounds' The study was undertaken on 20 Bangladeshi undergraduate EFL learners with 10 in the experimental group and 10 in the control group. The experimental group received

metacognitive instruction and listened to five transactional listening texts from the chosen podcast. They were also given exercises based on the pedagogical sequence for listening instruction designed by Vandergrift and Goh (2012). The control group listened to the same podcast texts but was taught using a traditional product-based approach involving comprehension questions. Both groups undertook a pre-test, post-test, and two metacognitive awareness listening questionnaires (MALQ) before and after the intervention. The results from a one-way within-subject ANOVA, revealed a positive correlation ($r = 0.63$) between metacognitive awareness and L2 listening comprehension. This study implied that podcasts twinned with metacognitive instruction could help learners develop L2 listening in terms of decoding and meaning-building processing by raising their metacognitive awareness and be used by teachers to guide them to learn to listen systematically.

Turning to the Brunei context, Lee Kok Yueh and David Hassell, in the seventh article, explored the learners' attitudes regarding the adoption of flipped learning in a tertiary setting. Questionnaires were administered before and after the semester-long flipped learning with 24 year-one students from a university in Brunei. Results showed that students appreciated the flipped approach of learning as they believed it improved collaboration, motivation, and self-regulated learning. However, the authors reminded the readers that learning styles and subjects would play an important role in flipped learning.

In the eighth article, Linh Duy Nguyen and Long Vu Nguyen used Schoology, a social networking environment, as a learning channel for students to work together with their teacher and their peers to enhance their English language ability. Their performance was examined via pre-test and post-test, and their perceptions towards Schoology-based self-regulated learning (SBSRL) were investigated through a questionnaire and semi-structured interview. This mixed-method study was conducted for eight weeks with 60 non-English majors, comprising 30 students in an experimental group and 30 students in a control group. The results showed students had positive perceptions of SBSRL and the platform tool helped the participants increase their English language ability, indicating it has the potential to support autonomous learning of English among university students.

The next three articles in the collection investigated to what extent courses or tasks that integrate technology support learning. In article nine, Tien M. Mai, Long T. D. Tran, Mai T. X. Nguyen, Linh V. P. Le, and Ngan H. K. Vo explored a language course design based on the Technological Pedagogical Content Knowledge (TPACK) model. By collecting perceptive data from 24 primary and secondary school English teachers, the authors found that TPACK was constructive in helping shape teachers' understanding of the interplay of pedagogy, content, and technology. Yet, they suggested additional support may be necessary for language teachers who have low technical knowledge.

Lee Luan Ng, Rino Shafierul Azizie Bin Shahrir Raghbir, and Chew Shin Yi, in the tenth article, took the investigation to a different plane by undertaking a literature review of past studies exploring the influence of the online game-related tasks on

language performance of language learners. The databases used were the Web of Science, ScienceDirect, Taylor & Francis Online, JSTOR Archive, and SAGE Journals from 2015 to 2021. They found that: a) motivation and active participation in language learning were promoted through competition among peers in online games, b) learners' willingness to communicate in the preferred target language was enhanced through collaborative discussion, c) learning via task completion was promoted by the versatile elements of the online game environment, and d) learners' language capabilities empowered their decision-making and abilities to plan learning outcomes. The results highlight the utility of online games as a valuable linguistic tool to effectively improve the language performance of learners.

In the eleventh article, Teoh Sian Hoon, Priyadarshini Muthukrishnan, Koo Ah Choo, Nurfarah Kam Mohd Zarul Kam, and Parmjit Singh adopted a more general perspective when they investigated the integration of technology by adopting of 21st-century skills (as defined by The Partnership for 21st-Century Skills, 2009) on preservice teacher's motivation. The 109 preservice teachers from two public universities were surveyed on their adoption of 21st-century skills and their motivation (operationalized as Interest, Confidence, and Effort). The results of these surveys informed the semi-structured interview of 10 of the participants, leading to more in-depth analysis of the preliminary findings. The data from this mixed-method study gave a positive picture of Malaysian preservice teachers' motivation and showed a positive relationship between motivation and the adoption of 21st-century skills. The data also highlighted areas that should be focused on in teaching programs, and the important issue of digital literacy and the necessity of ICT training.

In article twelve, Siew Ming Thang, Muthukrishnan Priyadarshini, Jennifer Poh Sim Tan, Hoo Keat Wong, and Arshad Nurul Iman and Chee Hao Sue investigated the use of a technological device in the form of an eye-tracker in understanding young learners' literacy skills. Drawing upon a mixed-method design, the study reported the results of 22 young learners participating in four different learning conditions. Results suggested that images played a significant part in enhancing readers' attention, engagement and understanding, whereas their story-telling performance was not strongly related to gender or eye fixation. At the end of the article, the authors suggested a few future areas of research to researchers with similar interests.

In the final article, Lay Hua Goh, Seng Thah Soon, Jennifer Poh Sim Tan, Muthukrishnan Priyadarshini Ramakrishnan Revati, and Ahju Rosalind investigated the perceptions of moral values of children who are becoming increasingly dependent on technological communication. The authors focused on this topic due to changing social situations, with an increasing dependence on technological communication and a decrease in traditional social relations that have previously been the transmitters of common social values. By gauging the current mindset of elementary school children, the authors hope to shed light on any possible changes in moral values. Using an online, picture-based values instrument, based on the Malaysia Moral Education framework. 14 moral values were explored in the survey. The 109 Malaysian school children, between ages 8 and 11, rated their perceptions on 56 pictures representing 14 moral

values. The results revealed that the children rated their level of moral values as moderate despite having quite high ideals of moral values. The gap was investigated and directions for future research were suggested.

The diversity of the articles in this special issue indicates the complexities of topics involving the adoption of technology in the Asia-Pacific region. It further suggests additional research in the various areas is necessary to enrich knowledge in this widely expanding field. It is our hope that the papers will be a stepping stone in inspiring greater involvement and participation in the use of technology in education.

Finally, the editorial team would like to extend their deepest gratitude to our panel of reviewers who selflessly undertook the task of evaluating the submitted papers and gave constructive and invaluable advice and counsel to both the authors of these papers and the editors.

References

- Partnership for 21st Century Skills. (2009). *P21 framework definitions*. ERIC Clearinghouse. <https://files.eric.ed.gov/fulltext/ED519462.p>
- Vandergrift, L. & Goh, C.C.M. (2012). *Teaching and Learning Second Language Learning: Metacognitive in Action*. New York: Routledge Taylor and Francis Group.

Panel of Reviewers

Amanda Gillis, Kyoto Sangyo University, Japan
 Au Thien Wan, Universiti Teknologi Brunei
 Azran Azmee, Islamic University, Bangladesh
 Betsy Lavolette, Kyoto Sangyo University, Japan
 Cathy Yuying Zhi, University of Shanghai for Science and Technology, China
 Chan Swee Heng, Taylor's University, Malaysia
 Chau Meng Huat, University of Malaya, Malaysia
 Chie Ogawa, Kyoto Sangyo University, Japan
 Chris Edelman, Kansai University of Foreign Studies, Japan
 Danyang Zhang, Shenzhen University, China
 Deliang Man, Guangdong University of Foreign Studies, China
 Elis Johannes Hendry Salim, HELP University, Malaysia
 Eric Hagley, APVEA, Australia
 Fan Su, The Education University of Hong Kong, China
 Goh Lay Huah, HELP University, Malaysia
 Gurnam Kaur Sidhu, SEGi University, Malaysia
 Jiaqi Wei, Shenzhen Technology University, China

Jingjing Hu, Sun Yat-sen University, China
Joe Tomei, Kumamoto University, Japan
John Eidswick, Kyoto Sangyo University, Japan
Justin Harris, Kindai University, Japan
Lee Ai Suan, Sunway University, Malaysia
Lee Kok Yueh, Universiti Teknologi Brunei
Lee Van Thinh, Banking Academy of Vietnam
Liz Ng Lay Shih, Universiti Kebangsaan Malaysia
Loo Fung Lan, Open University Malaysia
Makimi Kano, Kyoto Sangyo University, Japan
Mark Feng Teng, Beijing Normal University, China
Mike Holsworth, Kyoto Sangyo University, Japan
Najihah Mahmud, University Malaysia Kelantan, Malaysia
Ng Lee Luan, University of Malaya, Malaysia
Nguyen Duy Linh, Hutech University, Vietnam
Nurjanah Mohd Jaafar, Universiti Kebangsaan Malaysia
Pramela Krish, Universiti Kebangsaan Malaysia
Priyadarshini Muthukrishnan, HELP University, Malaysia
Qinmei Sun, Shanghai International Studies University, China
Quang Nhat Nguyen, HQT Education Ltd., Ho Chi Minh City, Vietnam
Ruofei Zhang, The Education University of Hong Kong, China
Setsuko Mori, Kindai University, Japan
Teoh Sian Hoon, University of Malaya, Malaysia
Thomas Robb, Kyoto Sangyo University, Japan
Tien Minh Mai, Ho Chi Minh City Open University, Vietnam
Torrin Shimono, Kindai University, Japan
Tran Le Nghi Tran, University of Queensland
Vo Nguyen Thuy Trang, The University of Danang, Vietnam
Warid Mihat, Universiti Kebangsaan Malaysia
Wendy Hiew, Universiti Malaysia Sabah, Malaysia
Wong Hoo Kiat, University of Nottingham, Malaysia
Xinyi Huang, The Education University of Hong Kong, China
Ying Tang, Southwest University, China