International Journal of Education and Development using Information and Communication Technology (IJEDICT), 2010, Vol. 6, Issue 3, pp. 3-6.

## Guest Editorial: Impact of ICT on teaching and learning in Asia: Focusing on emerging trends, patterns and practice

## Siew Ming THANG The National University of Malaysia, Malaysia

## Su Luan WONG Universiti Putra Malaysia, Malaysia

The rapid proliferation of Information and Communication Technologies (ICT) has significantly changed the educational landscape globally. It is now even impossible to imagine future learning environments that are not supported, in one way or another, by ICT. For example, the Internet and World Wide Web have transformed education and school systems and brought about dramatic changes to various aspects of education including distance and online learning, online interactions between teachers and students, virtual classrooms and other components of teaching, learning and training. The conversion of computer games into learning tools has also revolutionized learning. Such impacts are felt much more strongly in Asia in view of the rapid knowledge-based and technological advancement in this region. Hence, it is essential for Asian learners, educators and material designers at all levels to adapt to the continually changing landscape.

Despite the general acceptance that ICT has an important role to play in changing and modernizing educational systems and ways of learning, scientific evidence of the concrete contributions of ICTs to the learning domain, is less evident. In addition to this, publications in this domain have generally focused on Western countries. This special issue attempts to address this gap in knowledge by providing researchers and practitioners in this region a platform to share their concerns and problems in this field.

The articles selected for this special issue are drawn from a variety of background and cover a range of issues. However, they can be divided into three main areas. The first two articles, from Singapore and Indonesia respectively, evaluate inclination towards ICT. The next three are concerned about the roles of ICT in teacher training and professional development of teachers in Japan, Gaza and Malaysia. The last three explore the use of ICT to promote autonomy, develop language learning abilities, and as a tool for research purposes in Malaysia and China.

Timothy Teo and Joyce Hwee Ling Koh in the first article Assessing the Dimensionality of Computer Self-efficacy among Pre-service Teachers in Singapore: A Structural Equation Modelling Approach examine the computer self efficacy among students enrolled in a one-year Postgraduate Diploma in Education programme at Singapore's sole teacher training institute. The Structural Equation Modelling statistically confirms that computer self-efficacy is a multidimensional construct underlying three dimensions: Basic Computer Skills, Media-Related Skills, and Web-Based Skills.

Sutrisno Hadi Purnomo and Yi-Hsuan Lee in the second article undertook an Assessment of Readiness and Barriers towards ICT Programme Implementation: Perceptions of Agricultural Extension Officers in Indonesia. The study adopts the assessment model of e-Learning Readiness Survey (e-LRS) to measure readiness for ICT programme implementation. The main finding reveals that the extension officers perceived that three out of the four factors (infrastructure, personal and management) as ready for implementation. However, they felt that farmer readiness, technological and organisational cultures; and demographic variables (regency and age) need to be taken into further consideration before embarking on the programme.

Hiroki Yoshida, in the third article, is concerned with role of structured media/ICT education teacher training curriculum standards in promoting in-service and pre-service teacher training. The standards have been revised twice. In his article, *Development and Formative Evaluation of the "Educational Media In-service Teacher* Training Curriculum Standards", he describes the background, process of the revision, features of the new "curriculum standards" and the results of the formative evaluation. The 33 teacher consultants and social education consultants involved in the formative evaluation

viewed the new "curriculum standards" positively and deemed the standard as pertinent and useful to enhance teachers' knowledge and skills, promote effective use of educational media, raise media specialists, and help curriculum planners develop training programmes/courses.

Muhammad Kamarul Kabilan and Belal Mousa Rajab in the fourth article, *Research on The Utilisation of the Internet by Palestinian English Language Teachers Focusing on Uses, Practices and Barriers and Overall Contribution to Professional Development*, report on the role of the Internet for language teaching and teacher professional development. The findings based on a questionnaire on 274 English Language teachers in Gaza schools indicate that about 50% of them utilised the Internet for teaching English in the classrooms and for various other activities. Barriers that impede a higher degree of utilisation include those related to time, accessibility and facilities. It is suggested that for the proliferation of Internet practices, there needs to be an increase in funding for technology, an introduction of ICT education, and provision of pedagogical training and administrative support for teachers.

Puvaneswary Murugaiah, Hazita Azman, Azizah Ya'acob and Siew Ming Thang in the fifth article, investigate the use of *Blogging in Teacher Professional Development: Its Role in Building Computer-assisted Language Teaching Skills*, in an attempt to demonstrate that teachers' involvement in a community of practice can assist them in the development of appropriate skills and knowledge to teach in the technological-enhanced classroom. The study is based on a study involving Malaysian Smart School English language teachers who shared their knowledge and experiences with other member through blogging. The findings suggest that teacher collaboration via blogs can expose teachers to skills that are critical for computer-assisted teaching and help them to enhance existing competences.

Ranjit Kaur and Gurnam Kaur Sidhu in *Learner autonomy via Asynchronous Online Interactions:* A *Malaysian Perspective*, the sixth article in the issue, explore the extent asynchronous learning promote autonomy among a group of first-year B.Ed.TESL adult distance learners studying at a local university in Malaysia. The findings indicate that they lacked the confidence needed to learn autonomously. Although they displayed some confidence in planning, they required help in organising, monitoring and evaluating their learning which suggest that necessary steps have to be taken to ensure they are empowered with the necessary skills and tools to help them manage their own learning more effectively.

The seventh article by Zhihong Lu, Leijuan Hou and Xiaohui Huang entitled A Research on a Studentcentred Teaching Model in an ICT-based English Audio-video Speaking Class, examines the feasibility of using a student-centred teaching model to improve students' communicative language ability in an English audio-video speaking class (EAVSC) in computer-assisted language learning (CALL) environment. The authors' university undertook two quantitative longitudinal case studies. Analysis of correlated data reveals that this specific teaching model is effective in improving students' communicative language abilities, especially in speaking.

Finally, in the last article, *Extracting and Comparing the Intricacies of Metadiscourse of Two Written Persuasive Corpora,* Swee Heng Chan and Helen Tan used the concordancing software, monoConc Pro 2.2. to analyse the use of Metadiscourse (MD) in writing samples of a group of Malaysian undergraduates (MU) and benchmarked them against an established standard, the open access British Academic Written Essays (BAWE) corpus, available online. The study reveals, based on comparison of nature and manner of MD that the MU writers despite obtaining distinction (A1 and A2) in their English subject for their higher secondary school leaving certificate, were still at the evolving writer's stage and have not approximated closely to the writing ability of the BAWE writers. It concludes by discussing the implications of the findings for writing improvement in educational institutions.

## ACKNOWLEDGEMENTS

We would like to thank Professor Stewart Marshall for giving us the opportunity to publish this special issue which will not be possible without his guidance and support and the contributions of our team of reviewers who painstakingly went through the articles and gave invaluable feedback to the authors. They are as listed below.

| Maria Chong<br>Abdullah | Liniversiti Butra Malaycia, Malaycia   |
|-------------------------|--|
| Ummul Khair Ahmad       | Universiti Putra Malaysia, Malaysia<br>Universiti Teknologi Malaysia, Malaysia |
| Dietrich Albert         | University of Graz, Austria  |
| Zaini Amir              | Universiti Kebangsaan Malaysia, Malaysia                                       |
| Baharuddin Aris         |  |
|                         | Universiti Teknologi Malaysia, Malaysia  |
| Hazita Azman            | Universiti Kebangsaan Malaysia, Malaysia                                       |
| John Brine              | University of Aizu, Japan  |
| Ching Sing Chai         | Nanyang Technological University, Singapore                                    |
| Swee Heng Chan          | Universiti Putra Malaysia, Malaysia  |
| Ming-Puu Chen           | National Taiwan Normal University  |
| Chwen Jen Chen          | Universiti Malaysia Sarawak, Malaysia  |
| Winnie Cheng            | The Hong Kong Polytechnic University, Hong Kong                                |
| Jack Dempsey            | University of South Alabama, USA   |
| j.Tim Denny             | Consultant - International Development, Education and ICT                      |
| Ning Ding               | University of Groningen, Netherlands   |
| Carol Hall              | University of Nottingham, UK   |
| Kian Sam Hong           | Universiti Malaysia Sarawak, Malaysia  |
| Philip Hubbard          | Stanford University, USA   |
| Rozinah Jamaludin       | Universiti Sains Malaysia, Malaysia  |
| Alexa Joyce             | European Schoolnet   |
| Kezang                  | Ministry of Information & Communications, Bhutan                               |
| Kinshuk                 | Athabasca University, Canada   |
| Siu Cheung Kong         | Hong Kong Institute of Education, Hong Kong                                    |
| Ah Choo Koo             | Multimedia University, Malaysia  |
| Pramela Krish           | Universiti Kebangsaan Malaysia, Malaysia                                       |
| Chwee Beng Lee          | Nanyang Technological University, Singapore                                    |
| Jon Mannion             | Constructing Learning Through Technology, Pepperdine<br>University, USA        |
| Balakrishnan            |  |
| Muniandy                | Universiti Sains Malaysia, Malaysia  |
| Barry Natusch           | Nihon University, Tokyo, Japan   |
| Rita Nienmann           | University of Singapore, Singapore   |
| Niyazi Ozer             | Inonu University, Turkey   |
| T Ramayah               | Universiti Sains Malaysia, Malaysia  |
| Thomas Robb             | Kyoto Sangyo University, Japan   |
| Michael Kickmeier-      |  |
| Rust                    | University of Graz, Austria  |
| Kiymet Selvi            | Anadolu Universitesi, Turkey   |
| Jeong-Bae Son           | University of Southern Queensland, Australia                                   |
| Vance Stevens           | Petroleum Institute Abu Dhabi, UAE   |
| Kok Eng Tan             | Universiti Sains Malaysia, Malaysia  |
| Wee Chuen Tan           | Southern College, Malaysia   |
| Timothy Teo             | Nanyang Technological University, Singapore                                    |

| Seong Chong Toh   | Universiti Sains Malaysia, Malaysia     |
|-------------------|---|
| Wei Keong Too     | Multimedia University, Malaysia         |
| Irfan Naufal Umar | Universiti Sains Malaysia, Malaysia     |
| Gudrun Wesiak     | University of Graz, Austria             |
| John Wong         | City University of Hong Kong, Hong Kong |
| Chun-Ping Wu      | TamKang University, Taiwan              |
| Yuen Tak Yu       | City University of Hong Kong, Hong Kong |