

EDITOR'S INTRODUCTION

The current issue of *Research and Practice in Technology Enhanced Learning* presents six papers that focus on role-reversal pedagogy for virtual learning, computer-enhanced multimodal modeling for informal learning, ubiquitous learning among primary school students, affective states of college students who learn with SQL-Tutor, computer-based exams for school education, and self-generated drawing environment for language learning.

In the paper *Thinking from an Opposing Position: A Framework for a Role-Reversal Pedagogy Using Technology*, Chang et al. explore a technology-enhanced role-reversal pedagogy framework for learning in virtual environments. The authors develop the pedagogy framework which consists of three design principles and an activity flow for engaging students in a Second Life simulation environment for learning job interview skills. By conducting two practice effects studies which include students' questionnaire surveys and self-reflection note-writing, the authors confirm that the pedagogy framework designed is potential to enhance the learning interest and learning outcome of students who learn the target topic in the designed immersive environment.

In the paper *Computer-Enhanced Multimodal Modeling for Supporting a Learner Generated Topic*, Kim and Lee explore the affordances of 3D computer models in learning astronomical phenomena in informal learning contexts. The authors develop a multimodality modeling workshop that involves a 3D computer model for facilitating the learning of the target topic outside classrooms, and conduct a design-based research on students' construction and appropriation of multimodal models. The authors then identify three ways that computer-enhanced multimodal modeling activities effectively mediate students' learning. The authors further highlight new emphases in the research on the use of computer-enhanced multimodal modeling for self-directed and collaborative learning.

In the paper *English Language Learning in a One-to-One Computing Environment – Impacts and Considerations*, Tay et al. investigate the impacts of the ubiquitous use of ICT in students' English language learning and their development of problem-solving and reflective thinking skills. The paper reports on a case study of a one-to-one learning environment in a primary school in Singapore. Based on the multiple data from students, teachers and artefacts, the authors confirm the potential of the designed primary English classrooms to enhance students' learning engagement, motivation and achievement. The authors further highlight three directions for research on students' seamless use of ICT for the acquisition of English language knowledge and higher-order thinking skills.

In the paper *An Exploratory Study of Factors Indicative of Affective States of Students Using SQL-Tutor*, Guia et al. attempt to model the affective states exhibited by college students using SQL-Tutor, and identify factors that might be indicative of the affective states of college students who learn with SQL-Tutor. The authors analyze data on seven affective states of interest collected from a quantitative field observation as well as data on eleven features indicative of student affect collected from SQL-Tutor logs. The authors identify how students' exhibition and persistence of different affective states in learning with SQL-Tutor relate to their learning achievement; and how students' features of SQL-Tutor log data relate to the persistent affective states correlated with learning.

In the paper *Computer-Based Exams in Schools: Freedom from the Limitations of Paper?*, Newhouse discusses the progress toward various forms of computer-based exams and the potential of the form of computer-based exams to meet the need of curriculum and pedagogy in schools in the twenty-first century. The author draws experience from his related research series in these years to demonstrate the feasibility of a number of forms of computer-based exams that ensure a defensible balance of manageability, reliability and validity for high-stakes summative assessment in school education. The author also highlights future research direction in supporting a manageable implementation of digital forms of assessment for reliable measurement.

In the paper *Building a Self-Generated Drawing Environment to Improve Children's Performance in Writing and Storytelling*, Liao, Lee and Chan share their work on developing a self-generated drawing environment that is supported by tablet PCs for the use by primary school students to improve writing skills and storytelling abilities. Through a control-group study with four rounds of drawing-writing-storytelling session in one semester, the authors confirm the positive impact of the deigned learning environment on supporting young children to enhance the length of their writing as well as the quantity and quality of their storytelling. The authors further highlight three future directions for implementing the creation, sharing, and assessment of story making.

We keep soliciting an eclectic collection of quality paper submissions from researchers and practitioners around the world to share insights into the theoretical and methodological dimensions of research and practice in technology enhanced learning.

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