



TATE Special Issue of the International Journal of E-Learning and Distance Education

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Editorial

Welcome to this special issue of the International Journal of E-Learning and Distance Education. This issue features twelve articles about the use of digital technology in Canadian teacher education programs. The authors of these research studies are members of the Technology and Teacher Education (TATE) special interest group of the Canadian Association of Teacher Education (CATE).

The first two articles document collaborative Canadian and international research partnerships. The “Multiple Perspectives on Digital Literacies Research Methods in Canada” research study by Dr. Michelle Hagerman (University of Ottawa), Dr. Pamela Beach (Queen’s University), Dr. Megan Cotnam-Kappel (University of Ottawa), and Dr. Cristyne Hébert (University of Regina) describes three case studies that will enable Canadian digital literacies researchers to construct new, contextually situated frameworks that inform digital literacies policies and practices in Canadian systems of schooling.

The “Fostering Learning through Making: Perspectives from the International Maker Education Network” manuscript by Dr. Jennifer Lock (University of Calgary), Dr. David Gill (Memorial University), Dr. Thomas Kennedy (Eric G Lambert School in Churchill Falls, Newfoundland and Labrador), Ms. Stephanie Piper (University of Southern Queensland), and Dr. Alwyn Powell (University of Southern Queensland) highlights international case studies that provide strategies and approaches used to support learning through making. These case studies provide insight into



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developing and utilizing knowledge and skills in fostering learning through making in P-16 educational contexts.

The next two research studies focus on the use of digital technologies to support collaborative student work in teacher education programs. The article “Technology Used to Support Learning in Groups” by Dr. Barbara Brown (University of Calgary) and Dr. Christy Thomas (Ambrose University) found that students and instructors selected a combination of technologies, including institutionally supported and mainstream applications, and shared workspaces to coordinate, track, and monitor group progress. Students and instructors also described their use of communication technologies to manage group challenges related to scheduling, communicating, and integrating tasks into the project. “The Community of Inquiry Framework: Future Practical Directions - Shared Metacognition” manuscript by Dr. Norman Vaughan and Ms. Jessica Lee Wah (Mount Royal University) indicates that a teacher must use digital technologies to intentionally design, facilitate, and direct a collaborative constructive learning environment in order for students to learn how to co-regulate their learning (shared metacognition).

The following five articles investigate specific issues regarding the use of digital technology in teacher education programs. Mr. Luis Santos (Toronto District School Board) and Dr. Richard Reeve (Queen’s University) manuscript “Screen Time and Youth Health Issues: A Literature Review” revealed three categories of effects: (1) Physical; (2) Behavioural; and (3) Psychological. The studies reviewed by the authors are helpful in understanding screen time associations with the identified factors. Santos and Reeve indicate that some results from the studies demonstrate small but significant negative correlations between screen time exposure and health effects; however, in their conclusions, the authors point out that it is difficult to establish causal connections.

Dr. Robin Kay and Dr. Robyn Ruttenberg-Rozen (Ontario Institute of Technology) used their Instructional Video Evaluation Scale (IVES) to assess the quality of two videos (pre-feedback and post-feedback) in their “Exploring the Creation of Instructional Videos to Improve the Quality of Mathematical Explanations for Pre-Service Teachers” article. The IVES is comprised of four constructs (establishing context, explanation heuristics, minimizing cognitive load, and engagement).

“Coaching Kindergarten Educators through Design-Based Research to Enact Technology-Enhanced Reading Instruction” by Ms. Rachel St Hilaire and Dr. Tiffany Gallagher (Brock University) found that support can be provided to Kindergarten educators by enacting iterative cycles of DBR professional learning. This in turn helps anticipate and diagnose educators’ needs, provides differentiated support, engages in researcher self-determined problem solving, and liaises with administration. These supports were found to help mitigate barriers that educators faced when implementing technology into their reading programs.

Dr. Sara Shahbazi’s (University of Windsor) article “Finding the Right Fit: Exploring ESL Teachers and Students’ Perceptions of iLit ELL, a Technology-Based Literacy Program’s Use with High School English Language Learners” found that technology integration is affected by teachers' adaptability to change; teacher mindset affects teachers' acceptance, integration and effective use of technology. When applied purposefully, technology and differentiated instruction increases student motivation and teachers' efficiency, and technology with embedded scaffolds can enhance student autonomy and motivate student learning.

“The Case for Digital Timelines in Teaching and Teacher Education” by Dr. Isha DeCoito (Western University) found that there are beneficial effects of having students developing digital timelines. These benefits include flexibility in achieving a variety of learning goals (including multi-scale analyses, visualizing different spatial and temporal arrangements, developing historical contexts, etc.) associated with the assignment, flexibility in application and actualization, and enhanced motivation and engagement.

The final three articles are from the Ontario Institute of Research Studies (OISE) PeppeR project. PeppeR is a web-based collaborative workspace designed to promote learning within an online community. In Dr. Kimberley Mackinnon, Ms. Taru Malhotra, Dr. Alexandra Makos, Dr. Lesley Wilton, Dr. Clare Brett, and Ms. Teresa Avery’s (OISE) article “Instructor Perspectives on Building Community in Online Discussion-Based Courses: Issues of Pedagogy and Functionality,” three expert practitioners analyzed their research and practices which elicited recommendations for building online courses where collective meaning-making is an intentional goal.

“This is why we do it: Using a Design Based Approach to Optimize Student Learning in an Online Discussion Based Course” by Ms. Teresa Avery, Dr. Alexandra Makos, Ms. Wafa Sarguroh, Ms. Preeti Raman, and Dr. Clare Brett (OISE) used data from PeppeR, to map the

planned learning cycle across three online course offerings. The results revealed that students found their rhythm online that was relatively consistent throughout the course, until week 7 when they became more focused around the final project. Also, the authors found that having a well-designed learning cycle in place gives the instructor a clear framework in which to further individualize the instruction during the course.

The final research study “Exploring the Use of #Hashtags as an Easy Entry Solution to Enhance Online Discussions” by Ms. Preeti Raman, Ms. Teresa Avery, Dr. Clare Brett, and Dr. Jim Hewitt (OISE) found that while classifying and organizing course information was a strong motivator for students to tag their posts, hashtags were also used to connect to others in the learning community, express opinions, and encourage knowledge building.

We hope you enjoy this special issue!

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