

From Connection to Competency: Applying Learning Theory Through Digital Learning Ecosystems Across Educational Contexts

Dr. Jay Woodward , James O'Meara , Sanna Lukander , Laura Nevanlinna

Texas A&M University, the United States

Fun Learning Campus, Helsinki

Abstract

As digital technologies become increasingly prevalent in education, a persistent challenge is translating learning theory into meaningful instructional practice. This presentation uses two complementary cases to highlight the central role of educators in designing technology-enhanced learning environments. Drawing upon a Knowledge-to-Action Digital Learning Ecosystem Framework, the presentation examines how thoughtfully selected digital tools can support collaboration, authentic assessment, competency development, and evidence of learning across diverse educational contexts. The first case examines the integration of Miro and Genially within undergraduate teacher education courses over three semesters. Miro supported collaborative ideation and peer interaction, while Genially enabled students to transform conceptual understanding into interactive educational artifacts. Aggregate survey findings indicated that 95% of students reported increased connection to peers through Miro, 97% reported enhanced classroom instruction, and 93% reported increased engagement through the creation of interactive learning products. These findings suggest that digital tools can effectively support collaboration and authentic application of knowledge. The second case examines the F?du Open Bookshelf platform within a community-based summer literacy initiative designed to address summer learning loss among elementary students. Educators, tutors, families, and community partners used the platform to encourage reading engagement and support literacy development. Early findings indicated that 85% of participating students became active readers, collectively completing 193 books while maintaining average comprehension and vocabulary scores of 84% and 82%, respectively. Together, through both of these cases, best practices in how educators can intentionally leverage digital technologies to foster connection, creation, feedback, competency development, and evidence of



International Conference on Research in EDUCATION, TEACHING and LEARNING

learning across higher education and community-based settings will be shared.

Keywords: Digital Tools, Learning Ecosystems, Educational Technology, Student Engagement, Competency-Based Learning, 21st Century Skills