Oral Defense Announcement

University of Missouri – St. Louis Graduate School

An oral examination in defense of the dissertation for the degree Doctor of Philosophy in Education with an emphasis in Teaching and Learning Processes

Joshua James McMillian

Sports Administration M.S., Belmont University, 2006 Physical Education B.A., Lindenwood University, 2003

The Future of Physical Education and How Instructional Technology Is Pivotal in Curriculum Design and Learner Centered Instruction

Date: November 11, 2024 Time: 10:00 a.m. to 11:00 a.m.

Place: Remote

Abstract

The COVID-19 pandemic significantly altered K-12 education, compelling physical education (PE) instructors to adapt swiftly to remote teaching. This dissertation explores the integration of instructional technology among Missouri PE teachers, analyzing practices before, during, and after the pandemic. Utilizing a phenomenological approach, the study surveyed 106 educators and conducted 12 in-depth interviews, revealing widespread use of technologies such as heart rate monitors, fitness apps, and platforms like Google Classroom.

Findings highlight that school climate, access to resources, and teacher training are pivotal in technology adoption. Veteran teachers demonstrated greater proficiency with advanced tools, while novices showed adaptability but required foundational support. Technology use positively impacted student engagement and activity levels, transforming PE instruction into a more interactive experience.

This study underscores the need for ongoing professional development and equitable resource distribution to sustain effective technology integration in PE. The findings offer valuable insights for educators, policymakers, and curriculum developers aiming to enhance PE through innovative digital tools.

Defense of Dissertation Committee

Timothy Makubuya, Ph.D. Chairperson Karen Boleska, Ph.D. Committee Member Keith W. Miller, Ph.D. Committee Member Yuima Mizutani, Ph.D. Committee Member