

ABSTRACT

The COVID-19 pandemic and evolving curricula have highlighted the need for educators with strong Technological Pedagogical Content Knowledge (TPACK) to prepare future generations of digital learners, especially in resource-constrained environments. This aligns with Sustainable Development Goal 4 (SDG 4), which emphasizes quality education and lifelong learning opportunities for all. However, research on TPACK development in the Philippines often overlooks pre-service elementary teachers in these resource-constrained settings. This gap in knowledge hinders efforts to effectively prepare future educators for the unique challenges and opportunities they will face. This causal-comparative study aimed to address this gap by exploring the TPACK of 159 pre-service elementary teachers at Capiz State University, Philippines, using a researcher-adapted validated and reliability tested questionnaire. The pre-service teachers demonstrated overall proficiency in TPACK, with no significant differences in scores across year levels. However, sub-areas within Technological Pedagogical Knowledge (TPK) and Technological Pedagogical Content Knowledge (TPCK) showed potential for improvement, suggesting areas for development. This study emphasizes the importance of examining factors beyond year level when considering TPACK development. Recommendations include ongoing skill development for pre-service teachers, supplemental TPACK training programs, designing technology-integrated lessons for diverse learners, and continued TPACK research in the Philippines.

Keywords: TPACK, pre-service elementary teachers, elementary education, teacher education, causal-comparative