Integrating ICT Tools for Inclusive Mainstreamed Education: Framework in Sagad High School

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Abstract

The study aimed to determine the proficiency levels of teachers in various domains—including Assistive Technological Knowledge (A-TK) and Inclusive Technological Knowledge (I-TK)—and how these competencies correlate with the practical application of inclusive strategies. Using a quantitative approach supplemented by verbatim qualitative survey responses, the research analyzed data from educators regarding their instructional practices and perceived barriers to inclusion. From the statistical results, it was found that, however well teachers were pedagogically prepared (Mean: 3.87) basically in the peer-mediated model and contingency plan to teach SWDs, the presence of a large gap remained in terms of regular application of Universal Design for Learning (UDL) and Differentiated Instruction (DI). A paired-sample t-test was carried out for the correlational analysis of the use of ICT and TPACK (Pearson r = 0.455, p-value of 0.077), indicating that we accept the Null Hypothesis (H0). Similarly, in parallel with TPACK and Inclusive Education, the research on General Technology Literacy is not a significant predictor of success. Lack of inclusiveness as not everyone can use the computer. Qualitative results supported this conclusion, finding that although teachers felt ICT "helped them create things" and "support learners", a lack of specialist assistive technology was the barrier. Recommendations call for the reorientation of professional development towards specialized A-TK, drive the systematization of UDL frameworks, and construct "output-proof" curriculum packages to ensure that students with a range of special needs acquire/carry with them/" continuity in learning irrespective of delivery mode.

Keywords: ICT Utilization, Technological-Pedagogical-Content Knowledge (TPACK), Inclusive Mainstreamed Education, Assistive Technological Knowledge (A-TK), Inclusive Technological Knowledge (I-TK), Pearson's r Correlation, Universal Design for Learning (UDL), Learning Continuity, Differentiated Instruction (DI), and Output-Proof Curriculum.