

The Challenges to Information Communication Technology Integration in Mathematics Teaching and Learning

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Abstract : Background: The integration of information communication technology (ICT) in Mathematics education faces notable challenges, which this study aimed to dissect and understand. Objectives: The primary goal was to assess the internal and external factors affecting the adoption of ICT by in-service Mathematics teachers. Internal factors examined included teachers' pedagogical beliefs, prior teaching experience, attitudes towards computers, and proficiency with technology. External factors included the availability of technological resources, the level of ICT training received, the sufficiency of allocated time for technology use, and the institutional culture within educational environments. Methods: A descriptive survey design was employed to methodically investigate these factors. Data collection was carried out using a five-point Likert scale questionnaire, administered to a carefully selected sample of 100 in-service Mathematics teachers through a combination of purposive and convenience sampling techniques. Findings: Results from multiple regression analysis revealed a significant underutilization of ICT in Mathematics teaching, highlighting a pronounced deficiency in current classroom practices. Recommendations: The findings suggest an urgent need for educational department heads to implement regular and comprehensive ICT training programs aimed at enhancing teachers' technological capabilities and promoting the integration of ICT in Mathematics teaching methodologies.

Keywords : ICT, Mathematics, integration, barriers

Conference Title : ICETT 2024 : International Conference on Education, Teaching and Technology

Conference Location : Toronto, Canada

Conference Dates : June 13-14, 2024