

TEACH Framework, an Approach to Analyze the Struggle of Older Teachers to adopt Digital Teaching Skills in Pakistan

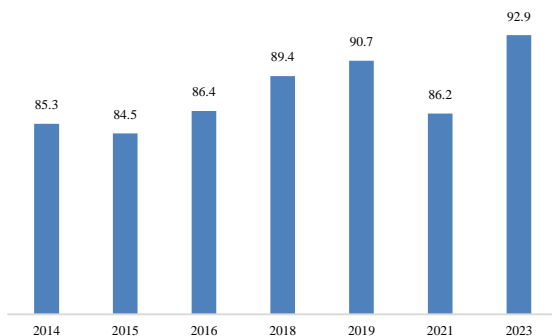
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The integration of technology in education has transformed the teaching landscape, necessitating educators to acquire digital literacy. However, older teachers face significant challenges in adapting to this shift. The boomers in Pakistan belong to the category of teachers (age 1950s-1980). Now as everything has turned to digital overnight, they far behind in the game and are expected to shift into new role very smoothly. To address this challenge, this study proposes the TEACH framework – a comprehensive teachers training program designed to support older teachers in Pakistan in developing digital teaching skills.

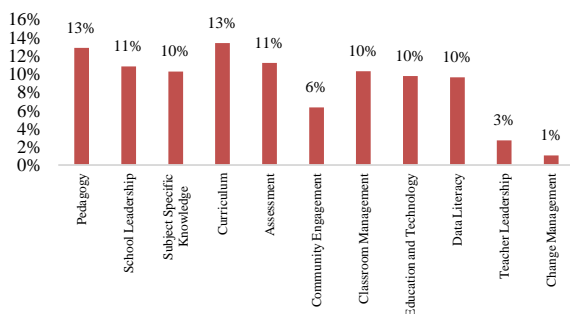
Keywords : Digital Literacy, Technology and pedagogical content knowledge TPACK, Traditional Teachers, TEACH framework, age-specific Learning Techniques, Student learning outcomes

1. Introduction

The boomers in Pakistan belong to the category of teachers (age 1950s-1980) whose professional lifespan can be characterized with little to no experience using digital technology (smart boards etc.). Now as everything has turned to digital overnight, they far behind in the game and are expected to shift into new role very smoothly. This often and commonly is associated with new technologies, pedagogies, and teaching methodology which can be overwhelming difficult to bear.

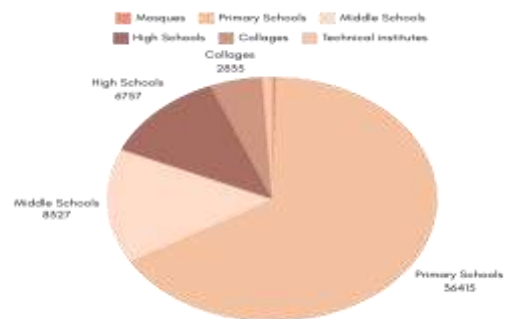


Enrollment Trend in Punjab (2014-2023)



Teacher's Training needs in Punjab 2023 (ASER Survey)

Research indicates that teachers' technological and pedagogical content knowledge TPACK is crucial for successful technology integration. However, older teachers often struggle with updating their skills due to factors such as lack of training, inadequate infrastructure, and generational discomfort with technology.



Distribution of schools in Punjab 2022

2. Literature Review

Mishra & Koehler, (2006) emphasized the importance of technological pedagogical content knowledge (TPCK) for effective technology integration.

Ertmer, (2005) highlighted the need for teacher education programs to address technological pedagogical beliefs. Hernández & Kamps (2018) reviewed literature on the digital divide and teacher education, emphasizing the need for targeted training. Albirini, (2006) identified lack of training, inadequate infrastructure, and resistance to change as barriers to technology adoption. Sahin & Rogers, (2006) discussed the role of innovation diffusion in technology adoption. Mac Callum et al., (2014) explored the impact of teacher demographics on technology adoption.

González-Sanmamed et al., (2017) examined the relationship between teacher age and technology integration. Carr-Hill, (2023) explored strategies for supporting older teachers' technology integration. Government of Pakistan (2020) outlined the country's education sector plan, emphasizing the need for technology integration. Haider et al., (2021) discussed Pakistan's digital divide and its impact on education. Kalim & Bibi, (2024) explored teacher education in Pakistan, highlighting the need for reform.

3. TEACH Framework

The TEACH framework is designed to support older teachers in Pakistan in adopting digital teaching skills.

- T:** Technological and pedagogical knowledge
- E:** Experience and Expectations
- A:** Age specific learning strategies
- C:** Content knowledge enhancement
- H:** Habitat and support

3.1 Pre-Implementation

Pr-implementation strategies include

Stakeholder engagement: collaborate with government agencies, educational institutions to promote the program.

Needs assessment: conduct survey to identify participants' digital literacy needs and expectations.

Resource allocation: Design promotional materials, social media campaigns, and information sessions.

Program promotion: Design promotional materials, social media campaigns, and information sessions.

3.2 Implementation

Implementation strategies for TEACH framework include participant selection, mentorship program, training session, peer support network, technical support and monitoring and evaluation.

At wide scale, capacity building, sustainability and scaling, partnership and collaboration, resource allocation and risk management are all part of implementation process for the TEACH framework.

3.3 Evaluation and Reflection

Following the implementation process, final evaluation and feedback should be carried out.

Quantitative Metrics: Quantitative matrices include pre and post survey assessment, Technical skills assessment, pedagogical knowledge skills, program satisfaction survey and student learning outcome measurement will be performed.

Qualitative Metrics: Qualitative matrices include participant reflection journal, mentorship program evaluation, case studies, focus group discussion and observational data to record and analyze the participants teaching practice and technology integration.

Performance indicators: Performance indicators are digital literacy skills, teaching practice, confidence and attitude of participants, student engagement and program retention.

4. Significance of the Study

This study contributes to the existing body of knowledge On teacher`s digital literacy and technology integration. The TEACH framework offers a practical solution for addressing challenges faced by older teachers, ultimately enhancing teaching effectiveness and student learning outcomes.



Significance of the study

5. Conclusion

By addressing the struggles of older teachers in Pakistan and providing a supportive framework for digital adoption, we can empower educators to thrive in the digital age and provide high-quality education to students.

This report focused on the specific context of older teachers in Pakistan. Future research can explore the applicability of the TEACH framework in other contexts, such as different countries or educational settings. Additionally, longitudinal studies can investigate the long-term impact of the TEACH framework on older teachers' digital adoption and student outcomes.

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