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Enhancing EFL Teachers' Technology Integration Skills through Capacity-Building Training

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ABSTRACT

This study evaluates the impact of Ethiopia's Special Capacity Building Training Program on enhancing technological competencies among English as a Foreign Language (EFL) teachers at Arba Minch University. A total of 222 secondary school EFL teachers participated in a 120-hour training program focusing on integrating digital tools, including Google Educational Apps, social media platforms, and online learning communities. Data were collected through a self-report questionnaire and interviews, with a one-sample t-test used to assess statistically significant improvements. Results indicate significant gains across all competencies ($p < 0.001$), with mean scores ranging from 3.30 to 3.76. The highest improvements were seen in using Google Educational Apps and participating in online learning communities ($M = 3.76$), while the lowest was in selecting context-appropriate tools ($M = 3.30$). Barriers such as time constraints, inadequate infrastructure, and "techno-phobia" were identified. Despite these challenges, the program successfully fostered digital literacy and collaboration among teachers. Findings affirm the program's efficacy in advancing technological integration, aligning with Ethiopia's Digital Education Strategy (2022–2030) and SDG 4. Recommendations include sustained training, contextualized resource allocation, and infrastructure support to optimize technology-driven pedagogy.

Keywords: *EFL teachers; technological competencies; capacity-building training; Ethiopia; educational technology; professional development; teaching practices.*

INTRODUCTION

In the rapidly evolving educational landscape of Ethiopia, technological skills have become an indispensable asset for English as a Foreign Language (EFL) teachers. The integration of digital tools has fundamentally transformed the teaching and learning process, offering more engaging, interactive, and accessible language instruction. As Ethiopia increasingly incorporates digital resources into its education system, EFL teachers equipped with technological proficiency can enhance pedagogical efficiency, cater to diverse learning styles, and foster a more inclusive classroom experience. Mastery of tools such as online learning platforms, multimedia resources, and language apps enables educators to bridge resource gaps and reach students in remote areas through virtual classrooms and digital content (Alemu, 2015).

The integration of technology in language teaching is rooted in several theoretical perspectives. The Constructivist Learning Theory (Piaget, 1950; Vygotsky, 1978) posits that learners construct knowledge through interaction with their environment. Digital tools provide opportunities for active engagement, collaboration, and real-world application of language skills. Communicative Language Teaching (CLT) (Canale & Swain, 1980) emphasizes interaction and real-life communication, which technology facilitates through online discussions, virtual exchanges, and multimedia resources. Additionally, Technological Pedagogical Content Knowledge (TPACK) (Mishra & Koehler, 2006) underscores the need for teachers to integrate technology effectively with pedagogy and subject matter knowledge to optimize teaching outcomes.

Technological skills are particularly essential for EFL teachers in Ethiopia as they enhance both teaching efficiency and student engagement in an evolving digital landscape. With restricted

availability of conventional learning materials, technology serves as a crucial bridge by offering multimedia resources, online platforms, and interactive applications that support language learning (Kessler, 2018). Educators with strong digital literacy skills can incorporate educational software, virtual classrooms, and mobile-assisted language learning (MALL) tools to design engaging, student-focused lessons (Godwin-Jones, 2017). Additionally, digital assessment techniques allow teachers to monitor student progress more efficiently, fostering a data-driven instructional approach (Chapelle & Sauro, 2017).

Given Ethiopia's increasing Internet penetration and mobile usage, the importance of technological integration in EFL classrooms cannot be overstated. Studies indicate that digital tools not only improve accessibility but also foster inclusivity and motivation among learners, and EFL teachers who harness technology effectively contribute to improved language proficiency outcomes, aligning with both national educational goals and global trends in English language teaching (British Council, 2020). However, despite policy frameworks such as the Digital Education Strategy (2022–2030) prioritizing ICT integration, challenges such as limited training, infrastructure constraints, and teacher resistance to technology hinder effective implementation.

The Special Capacity Building Training for EFL Teachers in Ethiopia is a targeted initiative designed to enhance teachers' technological skills, pedagogical knowledge, and classroom methodologies. Given the importance of English as a medium of instruction and a global lingua franca, such training programs aim to address challenges such as limited resources, large class sizes, and varying student proficiency levels. The training focuses on pedagogical skills enhancement by implementing interactive teaching methods such as CLT, task-based learning, and cooperative learning, moving away from traditional lecture-based approaches (MoE, 2015) It also emphasizes language proficiency improvement, enhancing teachers' grammar, vocabulary, pronunciation, and fluency to better facilitate English instruction across subjects (British Council, 2017). Furthermore, technological integration is a key aspect, training teachers to use digital tools such as language learning apps, online dictionaries, and multimedia resources, along with blended learning strategies. Assessment and evaluation techniques are also covered, equipping teachers with formative and summative assessment strategies to track student progress effectively (MoE, 2015). Additionally, the training promotes cultural sensitivity and inclusivity by encouraging gender-sensitive teaching practices and adapting methods to Ethiopia's diverse linguistic landscape. Finally, professional development is fostered through continuous learning opportunities such as workshops, online courses, and classroom research (British Council, 2017).

Evaluating the impact of Special Capacity Building Training on Ethiopian EFL teachers' technological competencies is crucial for refining professional development programs and enhancing technology-integrated language instruction. Research indicates that targeted training programs improve EFL teachers' pedagogical strategies. For example, Damtew et al. (2021) at Arba Minch University demonstrated that capacity-building workshops enabled teachers to adopt innovative methods for teaching speaking and writing skills. Similarly, Gebremedhin & Fenta (2019) highlighted that training in CLT and task-based learning significantly enhanced teachers' ability to design student-centered lessons in Ethiopian secondary schools.

Furthermore, technology-focused professional development programs have proven effective in low-resource contexts. Habler et al. (2016) found that Ethiopian teachers who received ICT training showed increased confidence in using digital tools like language apps and multimedia resources. This aligns with UNESCO (2020) which emphasized that blended learning strategies bridge resource gaps and foster dynamic classrooms. Additionally, USAID (2019) observed that teachers trained in digital tools reported higher student participation, particularly in rural schools with historically limited access to technology.

Although Ethiopia has demonstrated a commitment to digital learning through initiatives like the Digital Education Strategy (2022–2030), there is a lack of empirical evidence on the effectiveness of specialized training programs in enhancing EFL teachers' technological competencies. Previous research (Damtew et al., 2021; Habler et al., 2016) underscored the transformative impact of technology-driven professional development while also identifying ongoing challenges, including inadequate follow-up, contextual misalignment, and infrastructure limitations. If these obstacles remain unaddressed, Ethiopia risks deepening educational disparities, particularly in rural and underserved areas, and falling short of national and global educational goals such as Sustainable Development Goal 4 (SDG 4).

This study seeks to evaluate the impact of the Special Capacity Building Training Program on EFL teachers' technological competencies at Arba Minch University. By examining both quantitative outcomes and qualitative barriers, it aims to identify how such initiatives can be optimized to overcome systemic obstacles and foster a technology-integrated teaching culture, ultimately enhancing English language education outcomes in Ethiopia.

Objectives of the Study

- Assess the impact of Capacity Building Training on EFL Teachers' Technological Competencies.
- Evaluate the effectiveness of technological integration in enhancing teaching methods.
- Identify challenges and opportunities in implementing technology-based professional development for Ethiopian EFL teachers.
- Provide recommendations for improving technology-focused training programs to ensure sustainability and scalability.

Research Methodology

This study employed a post-test design to assess the effectiveness of a 120-hour capacity-building training program aimed at improving technological competencies among EFL teachers. The training emphasized the integration of ICT tools, including Google Educational Apps, social media platforms, and online learning communities.

The study involved 222 secondary school EFL teachers from various zones of the South Regional State of Ethiopia, selected during a Ministry of Education initiative at Arba Minch University in the summer of 2024. Data were collected using a self-report questionnaire post-intervention and supplemented with interviews from 12 trainees (9 male, 3 female).

A one-sample t-test was used to determine whether the mean scores for each assessed competency exceeded a neutral baseline of 3.00. This approach allowed for the assessment of significant improvements in teachers' confidence and perceived effectiveness in utilizing technological tools for language instruction.

RESULTS

The results of the study, based on the one-sample t-test analysis, as shown in Table 1 below, indicate that the Special Capacity Building Training Program had a statistically significant positive impact on EFL teachers' technological competencies. With a test value of 3.00 representing a neutral baseline, the mean scores for all the items assessed were above this threshold, suggesting improvements in all areas.

The area with the highest mean score was the ability to identify different parts of computers and their functions, with a mean score of 3.65. This indicates that the training was particularly effective in building teachers' foundational technological knowledge. Similarly, teachers reported significant improvements in their ability to use Google Educational Apps for classroom instruction, with a mean score of 3.76. This highlights the program's success in equipping teachers with practical tools for integrating technology into their teaching practices.

Teachers also demonstrated enhanced skills in utilizing social media platforms such as Telegram and Facebook for teaching purposes, with a mean score of 3.61. While the program succeeded in encouraging the use of these platforms for educational activities, there is still potential for improvement in using more advanced social media tools. Teachers reported improvements in identifying various online educational technology tools, with a mean score of 3.45. This result, though positive, suggests that further exploration and training on the diversity of online tools available would be beneficial.

Table 1: *Results of the One-Sample t-Test for the Impact of the Special Capacity Building Training Program on EFL Teachers' Technological Competencies*

Test value = 3.00					
No	**The Special Capacity Building Training Program helped to**	**Mean**	**Mean diff**	**t**	**p**
1	identify different parts of computers and their functions	3.65	1.124	2.16	0.000
2	exercise using Google Educational Apps for classroom instruction	3.76	1.097	2.16	0.000
3	exercise using Google Educational Apps for classroom instruction	3.63	1.176	2.16	0.000
5	utilize social media platforms such as Telegram and Facebook to improve my teaching and learning practices	3.61	1.126	2.16	0.000
6	identify different types of online educational technology tools that can be used for teaching and learning	3.45	1.166	2.16	0.000
7	select appropriate online tools and platforms for different purposes and audiences	3.30	1.178	2.16	0.000
8	utilize communication, assessment, and creative tools in my teaching and learning	3.65	1.124	2.16	0.000
9	participate in online learning communities that foster digital skills among teachers and other stakeholders	3.76	1.097	2.16	0.000

The lowest improvement was observed in selecting the most appropriate online tools for different educational purposes, where the mean score was 3.30. This indicates that teachers faced some challenges in matching tools to specific teaching contexts, highlighting the need for further guidance and support in this area. On a more positive note, teachers showed significant improvement in utilizing communication, assessment, and creative tools, which are essential for making teaching more interactive and engaging. This was reflected in a mean score of 3.65.

The training was highly effective in fostering collaboration among teachers, as evidenced by a high mean score of 3.76 for participating in online learning communities. This demonstrates that the program successfully encouraged networking and continuous professional development among teachers, an important factor for sustaining improvements in teaching practices.

Interviews with trainees further revealed a positive reception to the training, although time constraints, inadequate training facilities, and the absence of incentives were noted as limiting factors. Furthermore, the trainees acknowledged their own resistance to technology, or "techno-phobia," as an obstacle in fully embracing the training. Despite these barriers, the results still indicate that the training had a positive impact on the overall technological competencies of teachers.

DISCUSSION

The findings of this study demonstrate the significant impact of the Special Capacity Building Training Program in improving Ethiopian EFL teachers' technological competencies. The substantial improvement across various digital skills indicates that structured professional development initiatives play a crucial role in integrating technology into English language teaching (ELT). These findings align with previous research on the effectiveness of digital training programs for educators, both internationally and within Ethiopia (Damtew et al., 2021; Habler et al., 2016).

Professional development programs have been widely recognized as essential for equipping teachers with the necessary technological skills for modern education (Guskey, 2002). Research in developed and developing contexts has shown that systematic capacity-building training improves teachers' ability to integrate digital tools into their classrooms effectively (Godwin-Jones, 2017; Chapelle & Sauro, 2017). Specifically, ICT training has been identified as a catalyst for improving pedagogical strategies, enhancing student engagement, and promoting interactive learning experiences (British Council, 2020).

In the Ethiopian context, research has emphasized the significance of professional development in enhancing teachers' digital skills. For example, Habler et al. (2016) found that targeted ICT training greatly improved Ethiopian teachers' ability to integrate digital tools into language instruction. Similarly, Damtew et al. (2021) reported that professional development workshops boosted teachers' confidence in using educational technology, particularly in higher education institutions like Arba Minch University.

The findings of this study confirm that the training program significantly enhanced teachers' foundational technological knowledge, proficiency in using Google Educational Apps, and participation in online learning communities. The highest mean scores in utilizing Google Educational Apps and engaging in online learning communities indicate that teachers are increasingly incorporating digital tools into their teaching practice. These results align with global studies suggesting that Google Apps support collaborative learning, improve accessibility, and streamline classroom management (Kessler, 2018). Additionally, online learning communities have been shown to facilitate ongoing professional development by promoting peer collaboration and knowledge-sharing among educators (Schmid et al., 2014).

The study also revealed that Ethiopian EFL teachers found social media platforms such as Telegram and Facebook valuable for engaging with students, reflecting global trends in digital language learning. Research by Godwin-Jones (2017) and Kessler (2018) highlighted how social media enables real-time interaction, boosts student motivation, and enhances communicative competence in ELT. Ethiopian studies support this as well, with Alemu (2015) demonstrating that digital platforms help create interactive and student-centered learning environments. Furthermore, the Ministry of Education's (2022) Digital Education Strategy 2022–2030 underscores the importance of integrating social media and online learning tools to improve access to quality education. Recognizing the potential of digital tools to address challenges such as resource constraints and teacher shortages, the Ethiopian government has reinforced the relevance of technology-driven professional development initiatives.

Despite the overall progress, the study found that teachers made only moderate improvements in selecting appropriate online tools for specific educational purposes, with the lowest mean score (3.30) recorded in this category. Similar challenges have been noted globally, where educators often struggle to navigate the vast array of available digital resources (Chapelle & Sauro, 2017). In Ethiopia, Gebremedhin & Fenta (2019) observed that secondary school teachers faced difficulties in choosing and effectively utilizing digital tools due to limited exposure and insufficient training. This suggests that future training programs should focus on equipping teachers with strategies for assessing and selecting digital tools based on their instructional needs. Incorporating hands-on practice, case studies, and real-world applications into training sessions could help teachers make more informed decisions regarding digital tool integration

The study also identified several barriers that hinder teachers' ability to fully utilize the acquired skills, including time constraints, limited technological infrastructure, and resistance to adopting new technology. These challenges are consistent with findings from both Ethiopian and international research. Research by Guskey (2002) emphasized that professional development must be ongoing and sufficiently long-term to facilitate meaningful learning. In Ethiopia, many teacher training programs are conducted within short time frames, limiting the depth of learning (Damtew et al., 2021). Teachers in this study echoed similar concerns, highlighting the need for extended training periods and follow-up sessions.

The lack of adequate technological facilities in Ethiopian schools remains a major barrier to effective ICT integration. The Ministry of Education (2015) acknowledged these gaps in its Education Sector Development Programme V, emphasizing the need for improved infrastructure. Similarly, Habler et al. (2016) found that Ethiopian teachers often lacked access to computers and reliable Internet, hindering the practical application of their training. Another key barrier is resistance to technology adoption, often described as "techno-phobia." Schmid et al. (2014) documented that many educators hesitate to adopt new digital tools due to a lack of confidence and prior experience. Ethiopian studies have similarly found that teachers require sustained mentorship and institutional support to overcome their reluctance to integrate technology into teaching (Gebremedhin & Fenta, 2019).

To enhance the impact of capacity-building training for Ethiopian EFL teachers, several recommendations should be considered. Firstly, as Guskey (2002) and Kessler (2018) emphasized, effective professional development requires continuous learning opportunities. Future training programs should incorporate follow-up workshops, peer mentoring, and online support communities to reinforce learning. Secondly, the Ethiopian government and educational stakeholders should invest in expanding digital infrastructure, particularly in rural schools where access remains limited (Ministry of Education, 2022). Schools should also explore low-cost digital solutions, such as mobile-based learning platforms, to bridge the gap.

Additionally, training should be tailored to teachers' specific needs, considering regional disparities in technological access and familiarity. Customizing programs based on school-specific requirements can improve the relevance and effectiveness of digital training initiatives (Habler et al., 2016). Furthermore, providing incentives such as certification, career progression opportunities, and financial rewards could motivate teachers to embrace digital tools (British Council, 2017). Fostering a culture of peer collaboration and mentorship can also help mitigate "techno-phobia" and increase teachers' confidence in using technology.

This study confirms the effectiveness of the Special Capacity Building Training Program in enhancing Ethiopian EFL teachers' technological competencies. The significant improvements in digital tool usage, online collaboration, and social media integration indicate that targeted training can transform English language instruction. However, challenges such as time constraints, infrastructure limitations, and resistance to technology adoption must be addressed to maximize the impact of such programs. By implementing sustained, context-specific training and improving technological resources, Ethiopia can further enhance the role of digital tools in ELT, ultimately improving student engagement and learning outcomes. These findings align with prior research on the importance of capacity-building initiatives in education (Damtew et al., 2021; Habler et al., 2016; Schmid et al., 2014) and underscore the need for continued investment in teacher professional development to ensure successful technology integration in Ethiopian classrooms.

CONCLUSION AND RECOMMENDATIONS

Conclusions

The Special Capacity Building Training Program for EFL teachers in Ethiopia has successfully enhanced teachers' technological competencies, equipping them with the tools and skills necessary to integrate technology into their teaching practices. The statistically significant improvements across all areas suggest that the program was highly effective in helping teachers improve their confidence and proficiency in using digital tools, including Google Educational Apps, social media platforms, and other online educational technologies. The training also fostered collaboration among teachers, contributing to a positive learning community that supports ongoing professional development.

While the program's results are promising, certain areas, such as the selection of appropriate online tools and the identification of a wider variety of digital tools, showed more moderate improvements. This suggests that there is room for further refinement in the training program to provide more targeted guidance in these areas.

Recommendations

To enhance Ethiopia's capacity for integrating technology into English language teaching and improving educational outcomes, several strategic recommendations should be implemented. Firstly, future teacher training programs should prioritize in-depth modules on selecting appropriate digital tools for specific educational contexts, incorporating case studies and practical examples to illustrate effective tool assessment and application. Additionally, expanding the focus to include emerging technologies such as virtual reality (VR) and augmented reality (AR), would equip teachers with advanced skills to address diverse learning needs. To sustain progress, ongoing professional development through follow-up sessions, webinars, and peer coaching should be institutionalized, fostering a culture of continuous learning and adaptation to technological advancements. Training content must also be contextually adaptable, accounting for Ethiopia's varying technological infrastructure by tailoring resources to both rural and urban settings. Encouraging reflective practice through self-assessment tools, such as questionnaires, will enable teachers to evaluate the impact of digital tools on their pedagogy and identify areas for growth.

Finally, establishing centralized repositories of online educational resources, tutorials, and guides will empower teachers to pursue self-directed learning and apply acquired skills beyond formal training. Collectively, these measures will strengthen Ethiopia's educational system, preparing students to thrive in a digitally driven global landscape.

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