

The Impact of Teacher Professional Development on The Implementation of Technology-Enhanced Language Learning : Teachers' Perspectives (A Study Conducted at SMPN 2 Monano)

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ABSTRAK

Bahasa Inggris adalah bahasa internasional, banyak buku sains dan pasar bisnis ekonomi di dunia ini menggunakan bahasa Inggris sebagai bahasa formal untuk saling terhubung. Namun pada kenyataannya, mempelajari bahasa Inggris sebagai bahasa kedua masih menjadi masalah bagi siswa Indonesia. Hal ini mungkin disebabkan oleh kurangnya kreativitas antara guru dan siswa dalam memanfaatkan hal-hal baru di sekitar kita setiap hari. Masalah siswa sangat beragam, mulai dari bentuk; kurangnya media, kurangnya rasa percaya diri, dan masih banyak lagi. Pada dasarnya, ada empat keterampilan yang dibutuhkan dalam program pembelajaran bahasa Inggris. Mereka adalah membaca, berbicara, mendengarkan, dan menulis. Berdasarkan keterampilan tersebut, berbicara adalah salah satu keterampilan terpenting dalam pembelajaran bahasa. Dengan berbicara, kita dapat menyampaikan informasi dan ide, dan memelihara hubungan sosial dengan berkomunikasi dengan orang lain. Dengan berbicara, orang-orang berinteraksi antara individu dan masyarakat. Penulis mencoba menggunakan aplikasi perekam suara sebagai media untuk meningkatkan keterampilan berbicara siswa dan menggunakan gambar sebagai media untuk mengontrol fokus siswa selama spek mereka, alasannya adalah karena setiap siswa di Indonesia khususnya di Jawa Barat memiliki telepon seluler. Telepon seluler mereka sangat beragam dengan sistem

operasi (OS) yang terkenal di telepon mereka, yaitu; iPhone, Android, BlackBerry, Microsoft. Perekam suara adalah fitur umum di setiap ponsel dan beragam model suara.

ABSTRACT

This study explores the impact of Teacher Professional Development (TPD) on the implementation of Technology-Enhanced Language Learning (TELL) in English language teaching at SMPN 2 Monano. Despite the availability of training, many teachers face challenges in integrating technology due to infrastructural barriers, insufficient hands-on practice, and lack of continuous support. Using a qualitative design, the research employed interviews, classroom observations, and document analysis to investigate how TPD affects teachers' confidence, competence, and pedagogical practices. The findings reveal that professional development encourages a shift from traditional methods to more interactive strategies aligned with the TPACK framework, leading to greater student engagement, comprehension, and confidence. However, limitations such as unequal access to devices, unstable internet connectivity, and misuse of technology persist, particularly in rural contexts. The study concludes that continuous, contextualized, and practice-based professional development is crucial to bridge the gap between training and real classroom practices, thereby promoting sustainable integration of digital tools in English language education.

INTRODUCTION

The rapid development of digital technology has reshaped the educational landscape, including English language teaching and learning. Teachers are now expected not only to master subject knowledge but also to integrate technology effectively into their pedagogy (Mishra & Koehler, 2006). Technology provides access to authentic resources such as videos, news, and social media, which can enhance students' communicative competence in real-world contexts. However, many teachers still struggle to combine technological tools with effective teaching strategies, largely due to insufficient professional development opportunities (Ertmer & Ottenbreit-Leftwich, 2010; Napitupulu et al., 2024).

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Observations at SMPN 2 Monano revealed that despite teachers' participation in professional training, students continue to face challenges in mastering essential language skills, including listening, speaking, reading, and writing. Moreover, teachers have not yet consistently utilized digital tools in the classroom, which limits the potential benefits of Technology-Enhanced Language Learning (TELL). This gap between training and practice resonates with Subroto et al. (2023), who reported that Indonesian teachers face barriers in technology integration due to poor infrastructure and limited hands-on practice. Similarly, Supriyanto (2024) highlighted that many teachers lack confidence in using technology, as current Teacher Professional Development (TPD) programs often emphasize theoretical rather than practical aspects.

Against this backdrop, the present study aims to analyze the impact of Teacher Professional Development (TPD) on the implementation of Technology-Enhanced Language Learning (TELL) from teachers' perspectives in a rural school context. This research specifically explores how professional development influences teachers' competence, teaching strategies, and confidence in technology integration, particularly in overcoming the challenges of limited resources and infrastructure commonly faced in rural areas such as SMPN 2 Monano. By focusing on teachers' experiences, the study provides insights into how training programs have contributed to their ability to design lesson plans that incorporate digital tools, apply interactive teaching methods, and manage classrooms more effectively when technology is used.

Theoretically, this study is grounded in the Technological Pedagogical Content Knowledge (TPACK) framework (Mishra & Koehler, 2006), which underscores the importance of integrating technology, pedagogy, and content knowledge in a balanced manner. In this context, the framework serves as a lens to analyze how teachers combine their subject-matter expertise with pedagogical approaches and technological tools to create meaningful learning experiences. The findings are expected to show whether professional development has enabled teachers to reach the intersection of these three domains or whether challenges in practice still limit their integration. Furthermore, by applying TPACK in a rural Indonesian setting, this study not only examines teachers' readiness but also highlights the extent to which contextualized and practice-oriented training can support sustainable technology integration in English language education.

The significance of this study lies in its potential to provide empirical insights into the effectiveness of professional development programs in promoting meaningful technology integration in English language teaching. Its novelty lies in its focus on rural teachers' perspectives, which remain underexplored in the literature. By addressing this gap, the study contributes to improving professional development practices that are continuous, contextualized, and practice-based, with implications for policymakers, educational institutions, and training providers in ensuring sustainable technology integration in English classrooms.

METHOD

This study employed a qualitative research design to investigate the impact of Teacher Professional Development (TPD) on the implementation of Technology-Enhanced Language Learning (TELL) in English classrooms at SMPN 2 Monano. The qualitative approach was considered most appropriate, as it allowed the researcher to capture teachers' experiences, perceptions, and practices in a natural classroom setting. Two English teachers were purposively selected as participants because of their direct involvement in professional development programs, particularly those related to technology integration in language teaching. This purposive sampling ensured that the participants could provide rich and relevant data regarding the relationship between training and classroom practice.

Data were collected through three complementary techniques: semi-structured interviews, classroom observations, and document analysis. The semi-structured interviews, lasting approximately 20–50 minutes each, were conducted to explore teachers' experiences and perceptions of TPD and its influence on their teaching practices. Classroom observations provided insights into how technology was actually implemented during lessons and how students responded to these practices. Document analysis of lesson plans and teaching materials further revealed the extent to which the outcomes of professional development were reflected in teachers' instructional preparation. Research instruments included interview guidelines, observation sheets, and document review protocols to ensure consistency and comprehensiveness of data collection.

The data analysis followed Miles and Huberman's (1994) interactive model, which consists of three interconnected stages: data reduction, data display, and conclusion drawing/verification. This iterative process allowed the researcher to continuously refine emerging themes and ensure the credibility of interpretations. To strengthen the validity and trustworthiness of the findings, methodological triangulation was employed by cross-checking data from interviews, classroom observations, and document analysis. This triangulation not only enhanced the reliability of the results but also provided a

holistic understanding of the challenges and opportunities related to TPD and TELL implementation in the studied context.

RESULTS AND DISCUSSION

The findings of this study indicate that Teacher Professional Development (TPD) has a positive impact on teachers' readiness and competence in implementing Technology-Enhanced Language Learning (TELL). Teachers who participated in structured training programs such as PPG reported increased confidence in integrating technology into their teaching. This was evident from both teachers' statements that they began using applications such as Canva, Quizizz, and Google Forms after attending the training to make lessons more engaging. Classroom observations also showed that students became more active and enthusiastic when teachers incorporated digital media. These findings are consistent with the Technological Pedagogical Content Knowledge (TPACK) framework proposed by Mishra and Koehler (2006), which emphasizes the importance of balancing technological, pedagogical, and content knowledge in effective teaching practices. Furthermore, the results support Darling-Hammond et al. (2017), who argue that professional development fosters meaningful pedagogical change when it is continuous and practice-based.

These findings are strongly aligned with the Technological Pedagogical Content Knowledge (TPACK) framework proposed by Mishra and Koehler (2006), which highlights the importance of a balanced integration of technological, pedagogical, and content knowledge in teaching. Within the context of this study, teachers who had participated in professional training began to demonstrate the ability to design lessons that integrated technology not only as a tool for delivering content but also as a medium to promote student-centered learning. For instance, the use of Canva to create visually appealing materials, Quizizz to assess grammar mastery in an interactive way, and Google Forms to facilitate collaborative tasks reflected teachers' growing confidence in balancing the three domains of TPACK. This integration also extended to the use of YouTube videos to enrich listening and speaking activities, which proved highly engaging for students.

By adopting the TPACK perspective, teachers at SMPN 2 Monano were able to design lessons that went beyond rote memorization and instead fostered meaningful student engagement through authentic, technology-supported activities. This transformation underscores the relevance of Darling-Hammond et al. (2017), who emphasize that professional development programs achieve the greatest impact when they are continuous, practice-based, and situated in real classroom contexts. Evidence from classroom observations confirmed that when teachers received contextualized and hands-on training, they were more capable of shifting from traditional, lecture-based methods to interactive strategies that promoted active participation and collaboration among students.

The results from SMPN 2 Monano further illustrate that professional development empowered teachers not only to adopt digital platforms but also to reframe their pedagogical practices in ways that increased student motivation, comprehension, and confidence. Students responded positively, becoming more enthusiastic in language learning, particularly during activities involving gamified quizzes and multimedia resources. These outcomes demonstrate that effective professional development is a key driver in equipping teachers with the necessary skills to integrate technology sustainably, ultimately enhancing the quality of English language education in rural schools. Nevertheless, the findings also point to the importance of contextual adaptation, as infrastructural limitations and students' unequal access to devices continue to challenge the sustainability of TELL in such environments.

Nevertheless, the study also identified several obstacles that hindered the optimal implementation of TELL, such as unstable internet connectivity, limited infrastructure, and unequal access to devices among students. In practice, teachers at SMPN 2 Monano often experienced interruptions during lessons when the internet suddenly disconnected, making it difficult to continue activities that required online platforms such as Quizizz or Google Forms. Limited infrastructure, including the insufficient number of projectors and computers, also restricted teachers' ability to integrate technology consistently across lessons. Furthermore, unequal access to devices among students meant that some learners could not participate fully in technology-based activities and had to rely on group sharing, which reduced the effectiveness of digital learning.

Teachers also reported cases of students misusing technology during class time, such as opening social media applications instead of completing assignments. This condition is in line with Subroto et al. (2023), who emphasized that infrastructural limitations remain a major barrier to technology integration in Indonesian schools. Similarly, the findings resonate with Supriyanto (2024), who found that many teachers lack confidence in using technology because most training programs still emphasize theoretical aspects rather than hands-on practice. This was also reflected in teachers' statements during interviews, where they expressed the need for more contextualized and practical training to build confidence in applying technology in real classroom situations.

Thus, although Teacher Professional Development (TPD) has provided teachers with exposure to new strategies and encouraged the adoption of digital tools, sustainable implementation requires more than individual effort. As Ertmer and Ottenbreit-Leftwich (2010) pointed out, the success of technology integration is determined not only by the availability of devices but also by adequate pedagogical support. Therefore, professional development must be continuous, contextualized, and supported by sufficient infrastructure and effective classroom management strategies to ensure that technology can be applied meaningfully in rural schools such as SMPN 2 Monano.

CONCLUSION

This study concludes that Teacher Professional Development (TPD) has a significant role in enhancing teachers' competence, confidence, and readiness to implement Technology-Enhanced Language Learning (TELL) in English classrooms. Professional training, particularly structured and practice-based programs, encouraged teachers to shift from traditional approaches to interactive strategies by integrating digital tools such as Canva, Quizizz, Google Forms, and YouTube, which successfully fostered greater student engagement and motivation. However, the findings also revealed persistent challenges, including unstable internet connectivity, limited infrastructure, unequal access to devices, and students' misuse of technology, which hindered the optimal application of TELL in rural schools.

However, the research also emphasizes that the potential of TELL cannot be fully realized without addressing contextual barriers. Persistent challenges such as unstable internet connectivity, limited infrastructure, unequal access to devices, and instances of students' misuse of technology continue to hinder effective implementation. These obstacles are particularly evident in rural schools, where resource constraints are more pronounced, limiting the sustainability of technology integration despite teachers' willingness and improved competence. Therefore, it is imperative that professional development programs are not only continuous and practice-oriented but also contextualized to the specific challenges faced by teachers in under-resourced environments.

The implications of this study extend to policymakers, educational institutions, and professional development providers. Efforts should be directed toward designing training programs that bridge the gap between theoretical knowledge and classroom practice while simultaneously providing the necessary infrastructural and institutional support. This means that training should not only introduce teachers to a variety of digital tools but also ensure that they are given opportunities to practice their application in real teaching contexts. Without adequate facilities, such as reliable internet connectivity, sufficient devices, and supportive school policies, the knowledge gained from professional development risks remaining abstract and underutilized.

By tailoring professional development to the realities of rural contexts, teachers can be empowered to apply digital tools more effectively and sustainably, ultimately enhancing the quality of English language teaching and learning. In rural schools such as SMPN 2 Monano, contextualization is especially important because teachers often face unique challenges, including limited infrastructure and diverse student backgrounds. Training programs that acknowledge these local challenges can better equip teachers to adapt technology use to their classrooms, whether by selecting offline resources when internet access is limited or by employing collaborative activities to overcome unequal device ownership among students. In this way, teachers are not only trained in theory but also guided in transforming their professional learning into classroom practices that align with their specific conditions.

In doing so, this study contributes to the broader discourse on how teacher training and systemic support can work hand in hand to ensure that technology integration in education is both effective and equitable. It underscores that professional development cannot stand alone but must be complemented by continuous mentoring, peer collaboration, and strong institutional backing. Policymakers and institutions should therefore view TPD as part of a larger ecosystem of educational reform in which teacher competence, infrastructure provision, and classroom realities are interconnected. By embracing such a holistic approach, the sustainability of Technology-Enhanced Language Learning (TELL) in rural Indonesian schools can be achieved, ultimately leading to more inclusive and equitable English language education.

REFERENCES

- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Learning Policy Institute.
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, 42(3), 255–284. <https://doi.org/10.1080/15391523.2010.10782551>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Sage.

- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
- Napitupulu, R., Harahap, M. B., & Siregar, M. (2024). Teacher readiness in integrating technology into English classrooms. *Indonesian Journal of Language Teaching*, 14(1), 22–35.
- Subroto, S., Dewi, N. A., & Pratiwi, R. (2023). Challenges in integrating technology in Indonesian schools. *Indonesian Journal of Education*, 12(2), 45–58.
- Supriyanto, A. (2024). Teachers' confidence in using digital tools: A challenge for technology integration in Indonesian classrooms. *Journal of English Language Education*, 9(1), 15–27.