

A NARRATIVE INVESTIGATION ON TPACK ENGLISH TEACHERS' PROFICIENCIES

Sri Supiah Cahyati

*English Education Study Program
Faculty of Education and Literature, IKIP Siliwangi, Cimahi, Indonesia
Email: srisupiahcahyati@ikipsiliwangi.ac.id*

Cynantia Rahmijati

*English Education Study Program
Faculty of Education and Literature, IKIP Siliwangi, Cimahi, Indonesia
Email: cynantiarahmijati@ikipsiliwangi.ac.id*

Nai Supartini

*English Education Study Program
Faculty of Education and Literature, IKIP Siliwangi, Cimahi, Indonesia
Email: naisa_english@ikipsiliwangi.ac.id*

APA Citation: Cahyati, S. S., Rahmijati, C., & Supartini, N. (2024). A narrative investigation on TPACK English teachers' proficiencies. *English Review: Journal of English Education*, 12(1), 283-292
<https://doi.org/10.25134/erjee.v12i1.9302>

Received: 21-10-2023

Accepted: 22-12-2023

Published: 28-02-2024

Abstract: The introduction of Indonesia's Merdeka curriculum has significantly altered teaching approaches, emphasizing teacher autonomy and digital literacy, anchored in the TPACK framework. This study employs Narrative Inquiry to investigate English teachers' experiences with the curriculum, offering in-depth insights into their TPACK application and perceptions. Surveying 50 West Java teachers, findings reveal that a majority have effectively integrated technology into their teaching (55%), with a high level of confidence in their instructional strategies (84%) and content delivery (80%). Additionally, 76% of teachers are proficient in blending technology with their educational practices, and 79% feel competent across technology, pedagogy, and content. However, challenges like internet connectivity (68%), students' digital tool unfamiliarity (20%), and data limitations (5%) were identified as significant barriers. Despite these hurdles, most teachers demonstrate confidence in their digital literacy and TPACK skills, underlining the importance of providing adequate training and support. This research contributes valuable insights to English language teaching, educational technology, and policy making.

Keywords: *digital literacy; English language learning; Merdeka curriculum; narrative inquiry; TPACK.*

INTRODUCTION

The rapid pace of technological advancement necessitates equipping students with vital skills for seamless societal integration. The shift towards digital literacy, particularly under the Merdeka curriculum, marks a significant departure from conventional teaching methods towards more digitally-focused education (Prayogi & Estetika, 2020). This curriculum, grounded in the Technological Pedagogical Content Knowledge (TPACK) framework, merges expertise in subject matter, instructional skills, and technology use.

Despite the abundance of TPACK research, there's a notable scarcity of qualitative analyses on teachers' experiences and perceptions, especially within the Merdeka curriculum in Indonesia. This study, through Narrative Inquiry, delves into English teachers' experiences, offering detailed insights into their engagement with and

perspectives on TPACK, exploring responses from 50 West Java educators. Results show a majority have adeptly integrated technology into their pedagogy (55%), with a strong confidence in their teaching strategies (84%) and content delivery (80%).

A significant number also demonstrate skill in blending technology with educational practices (76%), acknowledging their comprehensive proficiency in technology, pedagogy, and content (79%). Challenges such as internet connectivity issues (68%), students' unfamiliarity with digital tools (20%), and data limitations (5%) were identified as significant barriers. Despite these obstacles, the majority of teachers exhibit strong capabilities in implementing digital literacy and TPACK-related skills, essential for fostering effective digital-age education. Addressing these challenges through proper training and support is

crucial for enhancing TPACK implementation, which holds implications for English language teaching, educational technology, and policy formulation.

In this era dominated by technology, mastering digital literacy becomes crucial in all life's facets. The Merdeka curriculum's adoption for English learning significantly transforms the educational landscape in Indonesian secondary schools, granting teachers freedom to tailor their instructional materials and lesson designs to meet their students' specific needs. This personalized approach boosts student engagement, academic performance, and readiness for the digital future. As education evolves with technological advancements, it's imperative for teachers to continually develop their digital literacy skills (Suprpto, 2021; Liando et al, 2023; Reddy et al., 2023).

Addressing the diverse needs of students requires a competence in integrating technology, supported by instructional capabilities (Li et al., 2022). TPACK emerges as a critical framework for embedding technology into teaching, conceptualizing the synergy of content, pedagogy, and technology as a means to fulfill 21st-century educational expectations (Rahmadi, 2019). Teachers are pivotal in preparing students for a digital future, incorporating technology into education to enhance learning outcomes (Schmid et al., 2021; Tan, 2023; Lachner et al., 2021). Although TPACK promises higher-quality learning outcomes (Eng & Conch, 2019; Santos & Castro, 2021; Absari et al., 2020), its implementation faces hurdles like internet connectivity in urban areas and a lack of technological training in rural settings. Overcoming these challenges necessitates adequate teacher training and access to quality technology infrastructure to fully leverage TPACK's benefits for digital literacy and 21st-century skills development.

The evolution of teaching and learning methods has led to a departure from traditional education towards dynamic, interactive instruction that leverages technological advancements. By enhancing their digital literacy, teachers can adopt the latest in technology and teaching methodologies, preparing students for success in the 21st century. The TPACK framework outlines the crucial knowledge areas for preschool English educators to effectively incorporate technology into their instruction, offering a structured approach to blend technology with teaching practices and subject content knowledge.

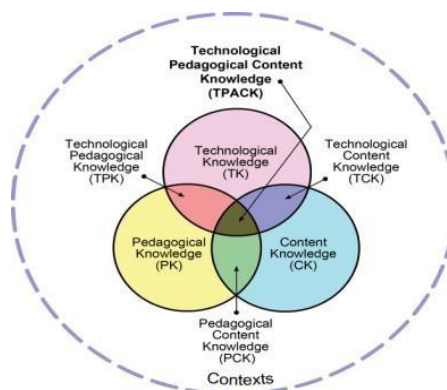


Figure 1. *The TPACK Framework (Mishra & Koehler, 2006)*

The discussion revolves around TPACK concept and its critical role in educational practices. TPACK highlights the synergy among technology integration, curriculum content, and instructional strategies, aiming to create more interactive and learner-centric educational experiences (Fahadi and Khan, 2022). Initially, research focused on unraveling TPACK's framework and its application in teacher education. Currently, attention has shifted towards devising assessment tools for TPACK in various settings and aiding educators, both prospective and current, in refining their TPACK skills.

The essence of the TPACK framework lies in its ability to facilitate an effective teaching and learning process through the strategic use of technology. The application of technology in education can enhance both the effectiveness and efficiency of learning processes (Handayani & Sulisworo, 2021), while also encouraging students' critical thinking, creativity, and autonomy (Timotheou et al., 2023; Johar & Hanum, 2021). Consequently, it's imperative for educators to develop proficiency in TPACK (Susana, 2021).

TPACK is built upon three foundational knowledge domains: Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK). It's crucial for educators to deeply understand and expertly manage these domains to offer students enriching and compelling learning experiences (Hasanah et al., 2022; Nurruzakiah et al., 2022; Handika et al., 2023) and to facilitate the integration of technology into classroom settings (Latip et al., 2023). TPACK also involves choosing suitable technology based on student needs, which is key to implementing the TPACK approach effectively, as highlighted by Setyowati & Rachmajanti (2023). Furthermore, enhancing teacher competency is vital for fostering professional growth in educators, which is paramount for elevating the overall quality of

education (Efrilia, 2020).

Elas et al. (2019) underscored the importance of effectively presenting concepts through technology, applying instructional strategies to deliver content, understanding how students grasp learning concepts, leveraging technology to address student challenges, and acknowledging students' existing knowledge to augment it with technology.

Through the use of technological tools, educators can make lessons more captivating and boost student engagement. Providing students with internet access allows teachers to supplement classroom materials with additional resources, broadening students' knowledge and enhancing their comprehension of subjects. For English educators, it's vital to be well-versed in various digital tools for effectively teaching curriculum content. It's also crucial to select technologies that match the learning styles and instructional needs of students. By doing so, educators can tailor learning experiences to individual student needs, leading to improved academic performance and greater student satisfaction.

METHOD

Despite the wealth of research surrounding TPACK, there remains a distinct lack of qualitative investigations into the experiences and perspectives of educators, especially within the *Merdeka* curriculum framework in Indonesia. There is a pressing requirement for more narrative-driven research that delves into the intricacies and subtleties of TPACK application in actual teaching scenarios. Many of the current studies provide a generalized view without delving into the specific challenges and strategies English language teachers employ to weave technology into their teaching methods. As a result, this study adopts the Narrative Inquiry approach to explore the experiences and methodologies of 50 English language educators. The objective is to dissect their stories to uncover deeper insights into their engagement with TPACK in educational settings.

Table 1. *Profile of the participants*

A. School	Total
High school	18
Vocational school	14
Junior high school	16
Islamic Junior high school	2
B. Age	Total
26 – 30	15
31 – 35	9
36 – 39	6

41 – 45	9
46 – 50	5
51 – 55	6

Narrative inquiry, a method that collects and interprets personal stories to understand lived experiences deeply, was applied to a study involving 50 English teachers in West Java. These educators shared detailed narratives of their teaching experiences, including challenges faced, successes achieved, and the evolution of their teaching methodologies.

The research utilized comprehensive interviews and thematic analysis to delve into the stories that define these teachers' professional identities and practices, aiming to shed light on their motivations, convictions, and approaches to teaching English.

A purposive sampling method was used to ensure a diverse representation of English teachers, selecting participants based on criteria like teaching experience, academic credentials, and teaching environments. Data collection primarily involved questionnaires and semi-structured interviews, which were conducted to gather personal stories about their teaching experiences, beliefs, and methodologies. These interviews were recorded with consent and transcribed word for word.

The thematic analysis of interview narratives followed Braun and Clarke's methodology, pinpointing themes and patterns through a meticulous, ethical process that emphasized informed consent and participant confidentiality. This ensured that participants were clearly briefed on the study's objectives, their rights within the study, and the protection of their identities in the disseminated results.

The analysis of these narratives yielded insights into educators' professional identities, illustrating how their experiences influenced their teaching methodologies and the development of their English teaching strategies. The objective was to compile these individual experiences into a unified narrative account, presented in a narrative format enriched with the results of the thematic analysis, underscoring the main themes and patterns observed.

The results from this narrative inquiry are invaluable for enhancing teacher training programs, informing curriculum design, and supporting initiatives aimed at teacher empowerment. This research has provided a deeper insight into the professional development needs of English teachers and outlined methods to elevate the quality of English language education. Furthermore, it offered English educators an

opportunity to voice their personal journeys and insights.

This deep dive into educators' narratives aimed to unravel the complexities of English teaching and expand our understanding of the teaching vocation, highlighting both its challenges and possibilities. By delving into these stories, the study has enriched our comprehension of English language teaching's nuances and the professional evolution of educators, making a significant contribution to the wider educational dialogue.

RESULT AND DISCUSSION

Educators who possess an in-depth knowledge of the TPACK framework are better prepared to accommodate various learning styles and tailor learning experiences to meet the specific needs and strengths of each learner. Through the exchange and application of effective practices, teachers can enhance their TPACK skills, leading to a more adaptable and engaging learning environment (Mishra & Koehler, 2006; Koehler & Mishra, 2009).

The aim of integrating TPACK into English language teaching is to improve the quality of education. Incorporating technology into lessons makes the learning process more engaging and dynamic, fostering critical thinking, creativity, and problem-solving abilities in students. The move towards digital assessment methods aligns with modern assessment trends, providing students with essential digital skills and allowing them to demonstrate their knowledge effectively (Piña-Ramírez & López-Beltrán, 2021).

This research conducted a survey with 50 teachers to explore their opinions on TPACK and their effectiveness as educators. The survey inquired about their preferred digital platforms, their experience in teaching, and their ability to integrate technology into their educational methods.

The survey items were organized into five domains: Technological Knowledge (TK), Pedagogical Knowledge (PK), Content Knowledge (CK), Technological Content Knowledge (TCK), and Technological Pedagogical and Content Knowledge (TPACK). Teachers rated their views on the TPACK abilities of English language educators using a 5-point Likert scale, ranging from Strongly Disagree to Strongly Agree. The findings are elaborated in the results section that follows.

Technological knowledge aspect

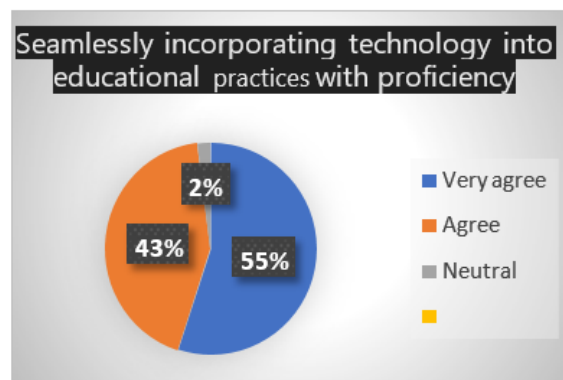


Figure 2. *Technological knowledge aspect*

Technological Knowledge (TK) stands as a critical element in an educator's repertoire, embodying a deep understanding of a variety of technologies and how they can be specifically leveraged within educational contexts. TK involves proficiency in navigating various digital tools, applications, and resources to bolster the teaching and learning process. Within the TPACK (Technological Pedagogical Content Knowledge) framework, Technological Content Knowledge (TCK) refers to teachers' ability to effectively use technology to deliver content across different subjects, marrying content expertise with skilled use of technological tools to facilitate the transfer of knowledge via the dynamic capabilities of technology.

Feedback from interviews underscores the confidence and skill teachers have in weaving technology into their teaching. Survey results indicate a substantial majority of educators (55% strongly agree, 43% agree, 2% neutral) skillfully employ a range of technologies to improve their teaching methods and content delivery. Furthermore, the majority recognize the role of technology in captivating students and enhancing educational outcomes.

Nonetheless, views differ on how well technology matches with ongoing advancements and its adaptability for students at various levels. Such insights call for a push towards refining technological skills and better aligning tech use with educational goals and the needs of students.

Analysis reveals several hurdles in applying technology within educational frameworks. While many teachers demonstrate confidence and adeptness in blending technology with their teaching, challenges persist in harmonizing technology with pedagogical approaches and subject content. This underscores the necessity for continuous professional development to navigate tech-related obstacles and unlock technology's full potential for enriching education.

Interviews shed light on various challenges encountered when deploying technology in educational settings, with internet connectivity emerging as a prominent barrier for 68% of participants. Additionally, a significant share of respondents pointed to students' lack of familiarity with technology (20%) and limitations related to data allowances (5%) as barriers. Smaller percentages identified school policies (3%), restricted access to mobile phones (2%), and reluctance to use LCD equipment (2%) as additional hurdles, highlighting the complex nature of integrating technology into education. These findings stress the need for holistic strategies to tackle the diverse issues teachers face, aligning with research by Gozali, Lie, and Tamah (2023).

Pedagogical knowledge aspect

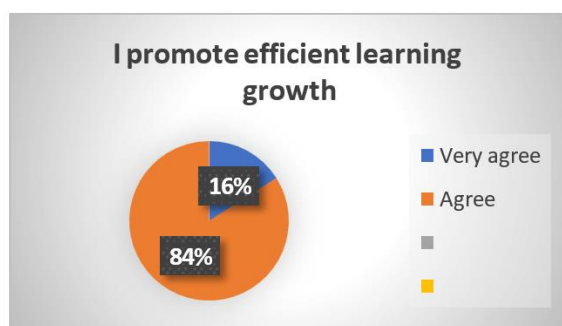


Figure 3. *Pedagogical knowledge aspect*

Pedagogical knowledge (PK) is a crucial aspect of successful teaching and learning, encompassing a deep understanding of the mechanics behind teaching and learning. This includes recognizing educational aims, values, and goals, along with the methodologies and techniques for instruction. Mastery in PK provides educators with the tools necessary for effective information dissemination and building profound connections between students and the content being taught.

In education, effective teaching necessitates a comprehensive approach that emphasizes a profound understanding of the subject content, instructional strategies, and the varied needs of learners. PK acts as the cornerstone that integrates these essential components smoothly, creating a dynamic and participatory learning atmosphere.

According to Figure 3, educators proficient in Pedagogical Content Knowledge (PCK) showcase their skills through the application of effective teaching strategies that cultivate meaningful educational experiences (16% strongly agree, 84% agree). This skill set includes careful organization of educational activities, coherent presentation of ideas, diverse instructional methods, and customized evaluation strategies designed to meet

the specific needs of each student.

Educators equipped with PK utilize teaching tactics that promote significant educational encounters. This involves the deliberate organization of educational tasks, adept communication of concepts, the application of various instructional techniques, and the adaptation of evaluation methods to suit the particular needs of students. They are proficient in managing the classroom environment and commit to reflective practices to improve the quality of teaching and maximize educational outcomes.

At its core, PK is vital for educators to excel in their role as facilitators of student learning. Through providing an engaging and interactive educational experience, they enable students to gain a thorough comprehension of the subject matter and reach their highest potential.

Regarding the Content Knowledge Aspect, PCK, as described by Koehler and Mishra (2009), allows teachers to "reconfigure content knowledge into formats that are both instructionally potent and tailored to the specificities of each classroom context." Essentially, TPACK equips educators to inspire, engage, and enhance their students' learning by harmoniously blending technological resources, pedagogical techniques, and subject-specific content, leading to an enriching and impactful learning setting (Piña-Ramírez & López-Bltrán, 2021; Jinyao & Bhattacharyya, 2022).

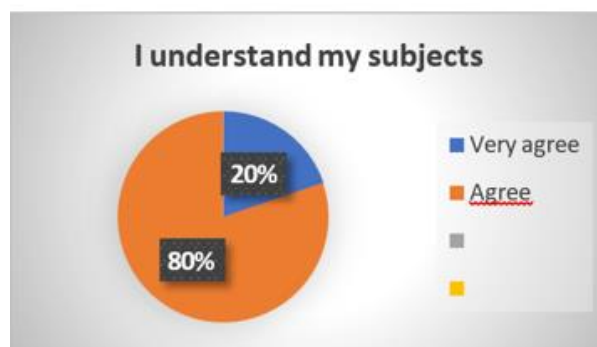


Figure 4. *Content knowledge aspect*

Technological pedagogical aspect

TPACK framework represents a comprehensive model that emphasizes the synthesis of three critical domains of knowledge crucial for proficient teaching: Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK). As outlined by Mishra and Koehler (2006), TPACK is defined as the confluence of technology, pedagogy, and content, highlighting the necessity for educators to be adept in these areas to foster transformative educational

experiences.

Within the TPACK model, educators are prepared with the skills not only to effectively convey information but also to customize examples that resonate with their students' capabilities. They organize content coherently following the lesson plan and respond to inquiries accurately, drawing on contemporary resources like academic journals to enhance their expertise. This method ensures that their instruction is both current and relevant.

In essence, TPACK empowers educators to seamlessly blend technological resources, instructional strategies, and subject-specific knowledge, creating an engaging and impactful learning atmosphere. This fusion deepens the connection between students and the topics at hand, supported by educators who demonstrate a robust understanding of their subject area (with 20% strongly in agreement and 80% in agreement). The integration of these components positions teachers to deliver effective instruction, as detailed in the extensive data presented in Figure 4.

Technological content knowledge aspect

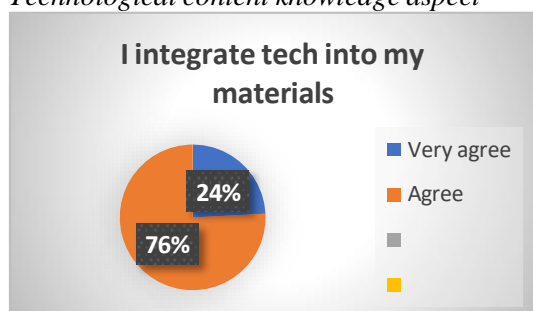


Figure 5. *Technological content knowledge aspect*

The TPACK model underscores the importance of Technological Content Knowledge (TCK) for teachers to skillfully use technology in teaching diverse topics (Koehler & Mishra, 2009). In the process of integrating technology into the classroom, it's crucial for educators to evaluate how technology fits into the educational process, their ability to employ technology across different subjects (with 76% agreeing and 24% strongly agreeing), and how technology can bolster students' comprehension and capabilities.

Furthermore, teachers are motivated to create learning activities centered around students that incorporate technology, thus enhancing their skills and aligning technology use with pedagogical objectives. Essentially, TCK equips teachers with the expertise needed to tap into the full potential of technology, serving as a key tool to enhance teaching methods and foster deep connections with their students.

Technological pedagogical and content knowledge aspect

aspect

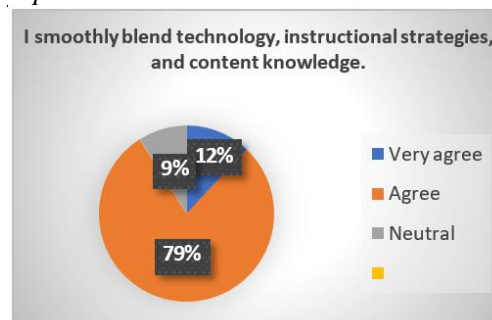


Figure 6. *Technological pedagogical content knowledge aspect*

The TPACK model emphasizes the necessity for teachers to skillfully integrate technology into their instruction across different subject areas. Interviews with teachers revealed a largely positive stance towards incorporating technology in educational activities, with a significant majority (79%) supporting its adoption. Furthermore, a noticeable portion of educators (12%) demonstrated a deep understanding of the importance of digital literacy for both themselves and their pupils, underlining the pivotal role of technology in contemporary education.

Teachers highlighted various digital platforms, including Google, Canva, PowerPoint, Quizizz, YouTube, WhatsApp, Kahoot, Wordwall, Padlet, Liveworksheet, Instagram, and Duolingo, as essential tools selected for their capacity to boost educational outcomes. Despite the enthusiasm for TPACK within the teaching community, issues such as technological glitches, connectivity problems, and user errors pose challenges to the smooth incorporation of technology into teaching practices. Problems like unstable internet connections, hardware malfunctions, and restricted data allowances can create barriers for both educators and students, potentially diminishing engagement and effectiveness.

Difficulties also stem from students' unfamiliarity with digital tools and certain teachers' reluctance to embrace new technologies, often due to a lack of training or resistance to change. Proactively addressing these issues is key to effectively implementing TPACK. Developing strategies to navigate these challenges, including offering thorough training and support, is crucial for creating a learning environment that leverages technology's benefits to enhance education.

CONCLUSION

This research is distinguished by its use of Narrative Inquiry to explore English teachers' experiences in Indonesia with the TPACK

framework, providing deeper insights into TPACK's real-world application within the Merdeka curriculum. Concentrating on English language instruction within this curriculum introduces new perspectives to the international TPACK conversation, contributing specific insights into its utility in language teaching.

The Merdeka curriculum's objective is to enable teachers to adopt the TPACK framework, promoting personalized and creative learning experiences tailored to students' distinct needs and learning preferences. By incorporating digital tools, teachers can design an interactive and flexible learning environment that significantly improves student engagement and success, making education more appealing and accessible.

Investigating 50 English language teachers through Narrative Inquiry, this study seeks to better understand their preparedness and capability in utilizing the TPACK framework. By examining their narratives, the research uncovers potential areas for improvement and ways to maximize TPACK's educational benefits. Results show that a considerable number of teachers (55%) have effectively integrated technology into their teaching, displaying confidence in their instructional strategies (84%) and a solid grasp of their subjects (80%), along with successfully merging technology with their educational content (76%).

Although various obstacles were identified, the majority of teachers (79%) demonstrated skill in combining technology with pedagogical and content knowledge (TPACK), showcasing their expertise. However, the research also pointed out issues such as limited access to technology, inadequate familiarity with digital tools, and insufficient support from school administrations. To enhance teachers' digital literacy and TPACK abilities, the study recommends more frequent TPACK-centered training and workshops, encouraging experience sharing, feedback, and administrative support.

Future studies should broaden the participant pool and examine TPACK's implementation in diverse educational contexts and its effects on student outcomes. This investigation appreciates the financial support from IKIP Siliwangi, which significantly aided the research and its contributions, highlighting the value of such funding in promoting educational research advancements.

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