



ENGLISH TEACHERS' COMPETENCIES ON TPACK IN THE INDEPENDENT CURRICULUM ERA

Cynantia Rachmijati

IKIP Siliwangi

cynantiarachmijati@ikipsiliwangi.ac.id

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Sri Supiah Cahyati

IKIP Siliwangi

srisupiahcahyati@ikipsiliwangi.ac.id

Abstract: This study explores English teachers' perspectives on TPACK in the Independent curriculum era. While the adoption of the independent education program in Indonesian secondary schools marked a transformative phase for English language learning, teachers now have the autonomy to tailor instructional materials and pedagogical strategies to students' unique needs. This shift indicated that however, necessitates that teachers needs to possess comprehensive digital literacy. This research uses Narrative Inquiry with forty-five (45) participants through questionnaires and interviews. The data analysis indicates that a substantial proportion of teachers are proficient in integrating technology into their teaching approaches and subject-specific content (53%). They express confidence in their ability to utilize effective teaching strategies (82%), possess a deep understanding of the subject matter (71%), the majority of teachers are capable of incorporating technology into the teaching-learning process (81%), and acknowledge their combined expertise in technology, pedagogy, and content (81%). Nevertheless, certain obstacles were encountered, including limited data quotas, limited internet access, and some teachers' reluctance to adopt technology. It is crucial that teachers effectively integrate technology, pedagogy, and content knowledge to foster students' 21st-century language proficiency.

Keywords: digital literacy, English language learning, Independent curriculum, Narrative Inquiry, TPACK

INTRODUCTION

This study aims to investigate English teachers' perspectives on Technological Pedagogical Content Knowledge (TPACK) within the framework of the Independent Curriculum era in Indonesian secondary schools. With the implementation of the Independent education program, teachers have gained autonomy to customize instructional materials and pedagogical approaches to suit students' individualized needs (Hakim et al., 2022). The objectives of this research are to assess English teachers' readiness in integrating TPACK into their teaching practices, to explore the challenges and opportunities associated with TPACK implementation, and to examine the impact of TPACK integration on student learning outcomes.

In today's digitally driven world, digital literacy and technological integration are imperative for effective teaching and learning, especially in preparing students for the demands of the 21st century workforce. The paradigm shifts in curriculum design afford educators the autonomy to craft bespoke instructional materials tailored to the diverse learning needs of their students (Williyan & Sirniawati, 2020). The implementation of the Independent Program for English language instruction heralds significant transformations in the educational milieu, particularly within Indonesian secondary schools (Ipek & Ustunbas, 2021). Against the backdrop of relentless technological and educational progress, educators are compelled to continually refine their competencies, with particular emphasis on digital literacy—an indispensable facet requisite for effective teaching and learning processes.

Furthermore, in contemporary society, the concept of digital citizenship encompasses a comprehensive understanding and adeptness in digital literacy. This proficiency is fundamental for fostering effective teaching and learning experiences, viewed indispensably from both the educators' and students' perspectives within the modern educational landscape. Possessing digital literacy entails the acquisition of requisite competencies essential for navigating the complexities of the 21st century (Wang et al., 2023). Essential components include proficiency in creativity, collaborative thinking, communication, information literacy, media literacy, and technological fluency. Moreover, embracing digital culture equips educators with the requisite skills to engage with and leverage digital technologies, which are increasingly ubiquitous in educational settings (Schmidt, 2020). Enhancing digital literacy not only empowers students to proficiently navigate various digital platforms but also enables them to undertake self-directed learning initiatives and successfully undertake online assessments.

Digital literacy within the educational setting pertains to the adept utilization of an array of digital tools, encompassing smartphones and tablets, for diverse educational objectives. By harnessing these proficiencies within the classroom environment, students are empowered to access content spanning various disciplines, engage in scholarly discourse with peers, and curate their own educational materials congruent with the prescribed curriculum (Okoye et al., 2023). The contemporary significance of digital literacy cannot be overstated, as it not only equips both educators and learners with the requisite competencies to navigate evolving educational paradigms and emergent technologies but also ensures instructional relevance, engagement, and alignment with the imperatives of 21st-century educational advancement (Wang et al., 2023). Given that today's students are poised to become the workforce of tomorrow, endowed with an exigent demand for critical thinking, problem-solving prowess, collaboration, and technological fluency, educators must exhibit adaptability and flexibility in response to the ever-evolving technological landscape. Consequently, ongoing professional development endeavors, including participation in seminars, workshops, webinars, or Massive Open Online Courses (MOOCs), are imperative for

augmenting digital literacy proficiencies and perpetually honing pedagogical skills to meet the dynamic demands of contemporary education.

Introduced by Mishra and Koehler in 2006, the TPACK framework emphasizes the interplay between Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK) in effective teaching practices (Park & Donald, 2022). This conceptual framework underscores the importance of integrating technology seamlessly into pedagogy and content delivery, thereby enhancing the overall learning experience for students (Budianto et al., 2023). However, the successful integration of TPACK within the Independent Curriculum era presents both opportunities and challenges for English teachers. In summary, this study seeks to explore how English teachers can effectively integrate TPACK into their instructional practices within the context of the Independent Curriculum program, ultimately aiming to enhance student learning outcomes and prepare them for success in the digital age.

METHODOLOGY

The study used a Narrative Inquiry approach, as advocated by Latronica-herb and Noel (2022) to delve into the experiences and practices of 45 English teachers. Narrative Inquiry is a method of qualitative research that focuses on collection and interpreting the stories of narratives of individuals in order to better understand their experiences. For this research, 45 English teachers were selected to provide rich stories about their teaching journeys. Data were collected through in-depth interview analysed thematically, with the aim of uncovering stories that shaped teachers' identities and professional practices.

This study employed a Purposive Sampling method for 45 English teachers from diverse backgrounds, teaching contexts, and experience levels (Teng, 2022). The data were mainly collected through questionnaire and semi-structured interviews where it encouraged participants to share their personal narratives related to their teaching experiences. The data then were analysed and interpreted using Narrative Inquiry. Narrative Inquiries include the retelling of participants' stories. There are four main types of data collection and the most recommended type of collection of participant stories is interviews. Interviews were conducted informally to allow participants to reveal individual stories.

Thematic analysis, following the guidelines of Braun and Clarke (2006), was employed to analyse the narratives gathered from the interviews. This process involved identifying patterns, themes, and recurring elements within the teachers' narratives and was carried out iteratively to ensure a comprehensive understanding of the data. Ethical guidelines, including informed consent and confidentiality, were strictly followed. Participants were informed about the research objectives, their rights, and the voluntary nature of their participation, and their identities were anonymized in the final report to maintain confidentiality.

Lessons learned from this Narrative Inquiry have provided valuable information in light of teacher's education, curriculum, teacher support and its connection to the TPACK implemented. It also has contributed to a better understanding of the professional development needs of English teachers and strategies to improve the quality of English teaching. This Narrative Inquiry research provided a platform for English speakers to share their stories and personal experiences and shedding light on regards of English teaching and our understanding to the teaching profession.

FINDINGS AND DISCUSSION

Findings

The integration of TPACK into Independent Curriculum program offers the opportunity to revolutionize the teaching of English in secondary schools. TPACK encompasses three bodies of core knowledge (technology, pedagogy, and content) and the intersections among them; namely technological knowledge (TK) which is about teacher's technical ability to make use of the technological tools. Second, pedagogical knowledge (PK) deals with teacher's competency of teaching strategies to improve students' learning. Third, content knowledge (CK) refers to the teacher's knowledge and skills of subject matter. Those three cores have its own intersections.

By skilfully blending technology, pedagogy and content knowledge, teachers can transcend traditional teaching methods and foster innovative learning experiences. Teachers must eventually combine their pedagogy and content knowledge with the technology known as TPACK as a learning strategy highlighting specific technologies and applications.

Technological Knowledge Aspect

Technological Knowledge (TK) signifies a deep understanding of various technologies and their tailored use in educational settings. It involves expertise in effectively using tools, software, and digital resources to enhance teaching and learning experiences. Technological Content Knowledge (TCK) represents teachers' ability to merge subject expertise with adept technical tool usage, seamlessly conveying varied subject matter through technology.

The interview responses reinforce teachers' confidence and proficiency in technology integration. A significant portion of teachers (53% agree, 43% strongly agree, neutral: 3%, disagree: 1%) adeptly integrates various technologies to enhance pedagogical strategies and subject-specific content. Most teachers recognize technology's potential to engage students and improve learning outcomes. However, opinions vary regarding the alignment of technology with current developments and its suitability for diverse student levels, emphasizing the need to enhance tech skills and align technology with educational objectives and student needs.

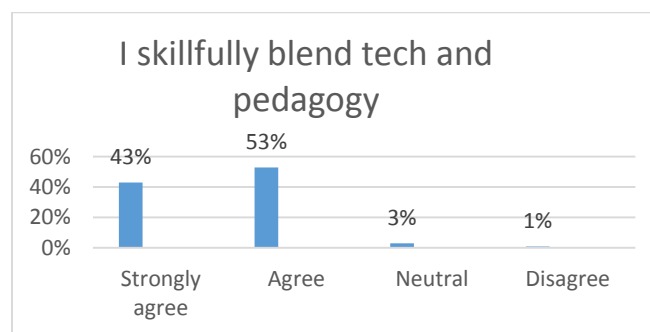


Chart 1. Technological Knowledge Aspect

The observation highlights various challenges related to implementing technology in education. Although a considerable proportion of teachers express confidence in their mastery of technology integration, some face obstacles related to the alignment of technology and subject matter. These findings highlight the importance of continuing professional development for technology related challenges and maximizing effective teaching and learning.

Several factors emerged from the interviews, shedding light on the challenges in implementing technology in the educational context. The most prevalent issue appears to be related to internet connectivity (69%), with respondents indicating its significance as a potential hindrance. Additionally, a notable proportion of respondents cited students' lack of familiarity with the applications (11%) and constraints related to data quotas (11%) as obstacles. A smaller but still notable percentage highlighted issues such as school policies (3%), the absence of cellphones (3%), and hesitation in using LCD equipment (3%) as contributing factors that can impede the effective integration of technology into the teaching and learning environment.

Pedagogical Knowledge Aspect

Pedagogical Content Knowledge (PCK), a cornerstone of the TPACK framework, represents teachers' expertise in effectively conveying subject-specific content while accommodating the diverse learning needs, abilities, and preferences of students. As described by Koehler and Mishra (2009), PCK empowers teachers to "transform content knowledge into pedagogically potent forms tailored to the uniqueness of each classroom situation." In the field of education, effective teaching is a multidimensional effort, emphasizing the importance of a deep understanding of subject matter, pedagogy, and the diverse student needs, as emphasized by Darling-Hammond (2017).

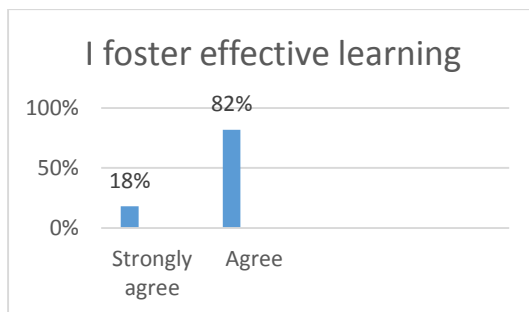


Chart 2. Pedagogical Knowledge Aspect

PCK acts as the pivotal that harmoniously integrates these critical elements, resulting in a dynamic and engaging educational experience. Teachers with strong PCK skillfully employ effective teaching strategies to promote meaningful learning (82% agree, 18% strongly agree). This includes thoughtful planning of learning activities, skillful presentation of concepts, diverse teaching methods, and the use of tailored assessment techniques to meet students' unique needs. Furthermore, they excel in classroom management and engage in reflective practices, all aimed at enhancing teaching quality and optimizing learning outcomes.

Content Knowledge Aspect

As described by Mishra and Koehler (2006), TPACK represents the "intersection of content, pedagogy, and technology," highlighting the importance of teachers adeptly integrating these domains to create transformative learning experiences. Within the TPACK framework, teachers are not only well-prepared to deliver content effectively but also to provide relevant examples tailored to students' abilities, present content logically in line with lesson plans (*RPP*) and respond accurately to questions. They also utilize up-to-date sources like journals to enhance their knowledge, ensuring that their teaching remains innovative and aligned with the evolving educational landscape.

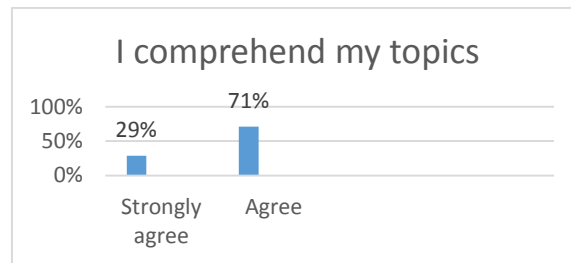


Chart 3. Content Knowledge Aspect

In essence, TPACK empowers teachers to engage, motivate, and empower their students by skilfully interweaving technological tools, pedagogical strategies, and subject-specific content, creating a dynamic and meaningful learning environment (Piña-Ramírez & López-Beltrán, 2021). This harmonious integration under the TPACK framework fosters effective teaching, as endorsed by teachers who possess a strong understanding of the subject matter they teach (71% agree, 29% strongly agree).

Technological Content Knowledge Aspect

Within the TPACK framework, Technological Content Knowledge (TCK) represents teachers' comprehensive understanding of effectively utilizing technology to convey and explain various subject matter (Koehler & Mishra, 2009). As teachers navigate the intricate interplay of technology, pedagogy, and content, they master the necessary models, technology, and pedagogy required for their teaching activities. A large number of teachers (81% agree, 19% strongly agree) proficiently integrate computer applications into their teaching, selecting technology that seamlessly aligns with their chosen teaching approaches, models, methods, and strategies.

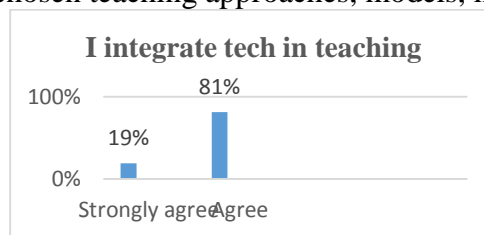


Chart 4. Technological Content Knowledge Aspect

Additionally, teachers leverage the capabilities of the Internet, social and other platforms for effective communication with students and collection of assignments. TCK empowers teachers

to not only convey subject-specific content but also to leverage technology as a dynamic tool that enhances their teaching practices and fosters meaningful connections with their students.

Technological Pedagogical Content Knowledge Aspect

TCK in TPACK framework means that teachers deeply use effective technology to transmit diverse. Of the 45 teachers who have been interviewed, most teachers already aware of the importance of using technology in class and even how to manage digital literacy for both teacher and students (81% agree, 11% strongly agree, neutral 8%). As teachers evolve in this dynamic interaction of technology, pedagogy, and content, they integrate their knowledge of technology, pedagogy and required content into their teaching activities.

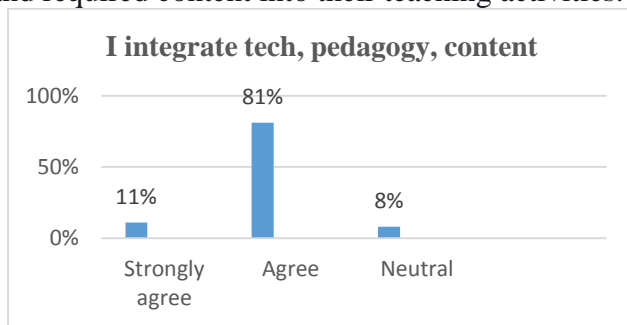


Chart 5. Technological Pedagogical Content Knowledge Aspect

Most teachers, based on the interview and analysis results, have the expertise to select appropriate templates and learning technologies. such as Google, Cava, Google Forms, Quizziz, Youtube, WhatsApp, Kahoot, Wordwall, Web, PowerPoint, electronic messaging, Padlet, LiveWorksheet, Instagram, Duolingo, and other platforms which perfectly match their educational objectives. They confidently apply and choose applications suitable for teaching, ensuring that technology improves education and promotes meaningful connections between teachers and students.

However, it is important to recognize that the implementation of TPACK has its share of challenges and will not always go smoothly due to many factors such as technological, internet, human error problems etc. Teachers and students face obstacles such as reliable internet connection may not be readily available, which hinders the seamless integration of technology into teaching and learning process. Other problems were students who may not be familiar with different applications and tools used in education, which can lead to a curve and potential difficulties, limited data quota, restricted policies, and the hesitation from the teacher to apply the technology in the classroom. By recognizing and addressing these challenges, it is to ensure the effective implementation of TPACK to create a conducive learning environment that maximizes the benefits of technology in education.

Discussion

The findings of this study shed light on the multifaceted landscape of integrating Technological Pedagogical Content Knowledge (TPACK) within the Independent Curriculum era, providing valuable insights into English teachers' perspectives, challenges, and competencies

(Kapici & Akcay, 2023). The discussion encompasses various aspects, including technological knowledge, pedagogical knowledge, content knowledge, and the overarching Technological Pedagogical Content Knowledge aspect.

The integration of technology into educational practices holds immense potential for enhancing teaching effectiveness and optimizing student learning outcomes. The study revealed a substantial proportion of teachers exhibiting proficiency in integrating technology into their pedagogical approaches and subject-specific content, affirming their confidence in utilizing diverse technological tools. However, challenges such as limited internet access and teachers' reluctance to adopt technology pose significant hurdles in realizing the full potential of technology integration (Williyan & Sirniawati, 2020). Addressing these obstacles necessitates concerted efforts towards enhancing digital infrastructure and providing comprehensive training and support to educators.

Pedagogical Content Knowledge (PCK) emerges as a pivotal component within the TPACK framework, enabling teachers to adeptly convey subject-specific content while catering to the diverse learning needs of students (Anderson & Kyzar, 2022). The findings underscored teachers' adeptness in employing effective teaching strategies to promote meaningful learning experiences. However, challenges related to aligning technology with educational objectives and accommodating diverse student levels warrant attention. Strengthening pedagogical competencies through ongoing professional development initiatives is imperative for overcoming these challenges and optimizing teaching effectiveness.

Teachers' deep understanding of subject matter plays a pivotal role in facilitating meaningful learning experiences and fostering student engagement. The study findings affirm the majority of teachers' proficiency in subject-specific content knowledge, highlighting their ability to integrate technology seamlessly into content delivery (Weidlich & Kalz, 2023). However, ongoing efforts are needed to ensure that teachers remain abreast of evolving educational trends and subject matter developments, thereby fostering instructional relevance and alignment with students' learning needs.

Technological Content Knowledge (TCK) encompasses teachers' adeptness in leveraging technology to convey subject-specific content effectively. The study revealed a significant proportion of teachers proficiently integrating technology into their teaching practices, selecting tools and platforms aligned with educational objectives (Santos & Castro, 2021). However, challenges such as unreliable internet connectivity and students' unfamiliarity with educational applications underscore the need for comprehensive support and training initiatives to maximize the benefits of technology integration.

The synthesis of technology, pedagogy, and content knowledge within the TPACK framework underscores its transformative potential in enhancing teaching effectiveness and fostering student learning outcomes. The study findings indicate a commendable level of awareness and competency among teachers in integrating TPACK into their instructional practices (Demeshkant et al., 2022). However, challenges such as technological constraints and hesitancy in adopting technology necessitate proactive measures to ensure effective implementation. Comprehensive professional development initiatives, coupled with robust support systems, are essential for empowering teachers to harness the full potential of TPACK and create conducive learning environments that promote student engagement and achievement.

This study offers valuable insights into English teachers' competencies and perspectives on integrating TPACK within the Independent Curriculum era. While the findings underscore teachers' proficiency in leveraging technology to enhance teaching effectiveness and promote

meaningful learning experiences, challenges such as technological constraints and pedagogical alignment warrant concerted efforts towards comprehensive professional development and support initiatives. By addressing these challenges and fostering a culture of continuous learning and innovation, educators can maximize the benefits of technology integration and cultivate dynamic learning environments conducive to 21st-century language proficiency and success.

CONCLUSION

In the digital era, teachers must excel at utilizing technology for effective instruction, and TPACK serves as the conduit to achieve this goal. The integration of technology, pedagogy, and content knowledge empowers teachers to craft meaningful, engaging, and personalized learning journeys for their students.

The analysis of the data reveals that a significant percentage of teachers demonstrate proficiency in integrating technology into their teaching methods and subject-specific content (53%). They express confidence in their ability to employ effective teaching strategies (82%) and possess a thorough understanding of the subject matter (71%). The majority of teachers exhibit the capability to integrate technology into the teaching-learning process (81%) and acknowledge their combined expertise in technology, pedagogy, and content (81%). However, challenges were encountered, including limited data quotas, restricted internet access, and some teachers' hesitancy to embrace technology. It is imperative for teachers to skillfully integrate technology, pedagogy, and content knowledge to cultivate 21st-century language proficiency in students.

For 21st century skills, teachers need to skillfully blend technology, pedagogy and content knowledge, teachers can transcend traditional teaching methods and foster innovative learning experiences. Teachers should eventually combine their pedagogy and content knowledge with the technology known as TPACK as a learning strategy highlighting specific technologies and applications to nurture digital literacy and digital understanding.

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