THE BEGINNER ENGLISH TEACHERS' PERSPECTIVES OF THE TPACK LEARNING MODEL IN ELT CLASSROOMS

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TPACK emphasizes the importance of effectively integrating technology, pedagogy, and content in the learning process. Integrating TPACK in learning can help teachers create interactive and interesting learning for students. The objective of this study is to explore teachers' perspectives on the implementation of TPACK, particularly from the viewpoint of beginner English teachers who are considered to possess higher technological literacy. This research uses a qualitative descriptive approach by interviewing two beginner teachers. The interview uses a semi-structured method which provides additional questions based on the teacher's responses. Transcription, member checking, and coding were used to analyze the data. The researchers found that beginner English teachers possess a developing yet reflective understanding of TPACK, applying it through contextually appropriate and student-centered technological practices. However, the implementation remains suboptimal due to limited technological facilities and variations in students' digital literacy, highlighting the need for continuous institutional and professional support.

Keywords: Beginner Teacher, English Language Teaching, TPACK

1. INTRODUCTION

The landscape of education, particularly English Language Teaching (ELT), has evolved significantly because of rapid technological improvements. This has prompted an evolution towards digital-based learning, which is broadly characterised as an instructional technique that uses technology to provide students with flexibility and some degree of control over the time, place, path, and pace of learning. In this setting, the English teacher's responsibility is no longer only to impart content, but also to serve as a facilitator who can effectively integrate digital resources to encourage 21st-century abilities such as communication, teamwork, and critical thinking. It is correspond to (Nurdin et al., 2023), who declare that teachers should not only be knowledgeable about the subject matter being taught (content knowledge), but also about classroom strategies, the application of learning theories, differentiation approaches, and grading processes (the pedagogical knowledge). To guide teachers in this complex integration process, the Technological, Pedagogical, and Content Knowledge (TPACK) framework has emerged as a cornerstone model. (Anggrarini & Yulianawati, 2025) declare that TPACK development depends on opportunities for teachers to experiment with technology while maintaining strong links to disciplinary content and learner needs.

The term of technological, pedagogical, and Content Knowledge (TPACK) implements a learning model of the balance in the application of technology, teachers' pedagogy, and content knowledge in a teaching-learning process (Ammade et al., 2020). TPACK learning model requires teachers to improve their capability in balancing technology, Pedagogy, and the content materials of their teaching field (Krauskopf et al., 2018). It is supposed to be highlighted that teachers must be conversant with a variety of technological platforms to integrate technology into English language teaching (Sari et al., 2021). There has been an increasing demand for educators to comprehend EFL teachers' TPACK since EFL teachers also need to implement CALL and TELL in their classes (Aulia, 2021; Ilahude et al., 2023). It means that English teachers must be able to utilize technological tools in language learning such as Mobile-Assisted Language Learning (MALL), Computer-Assisted Language Learning (CALL), Language Learning Applications, Internet websites, etc. (Inayati et al., 2024) assert

that Beginner English teachers frequently adopt interactive applications and game-based platforms to sustain student motivation and improve learning outcomes. Therefore, In English Language teaching, TPACK emphasizes the teachers' ability to combine and balance the application of technological tools of language learning, teachers' pedagogy, and English Content.

Teaching competence is dependent on an understanding of materials (content), and the two collaborate to generate the term PCK (Pedagogical Content Knowledge). Teachers are required to be experts in both subject matter and concepts as well as effective communication techniques for both teaching and learning (Ismail et al., 2023). To instruct their students, EFL teachers must ensure that they acquire sufficient pedagogical abilities (Andriany & Adnan, 2022). Pedagogical competencies refer to the particular expertise that instructors possess within the schools. The view point from Elas et al. (2019), assert that for teachers to be effective educators, they must practice and improve the three main teaching skills—technology, background knowledge, and pedagogical skill—to instruct their pupils. These elements are also well-known as TPACK. The technological, pedagogical, and Content Knowledge (TPACK) framework appears to support the advancement of methods for identifying and characterizing how professional knowledge connected to technology is applied and realized in classroom instruction (Nguyen et al., 2023). TPACK learning model will be able to design the proper technological teaching and learning process in the ELT Classroom. In Implementing the TPACK framework, involves technological, pedagogical, and content knowledge, the teachers are certainly required to have a good technological teaching competency in a teaching-learning process.

Since the implementation of technology in the TPACK learning model requires the teachers' technological teaching competency, several studies have been conducted to research the teachers' perspectives and practices in applying the TPACK learning model in ELT Classrooms. (Andriany & Adnan, 2022)conducted the first research, which indicated that EFL teachers at the sampled schools had positive opinions regarding the integration of TPACK in English language instruction. It can be inferred that EFL teachers demonstrated strong competencies in the areas of technology, pedagogy, content, and knowledge (TPACK). Furthermore, Nguyen et al. (2023) highlighted that the teachers have extremely high standards for the implementation of TPACK in the classroom. This score indicates that teachers have a positive view of themselves and can incorporate TPACK into their lesson plans. It reveals that these previous studies have concentrated on experienced or in-service teachers, by pointing to a limited perspective into how beginner English teachers conceptualize and implement this framework in their classrooms. It was conducted with a quantitative method to measure teachers' TPACK proficiency, experiences, perceptions, and strategies of novice teachers navigating technology integration in a real classroom atmosphere. In addition, this inadequate representation provides a significant opportunity to examine how beginner educators, typically more adept in digital literacy, build their professional identities and pedagogical approaches in the digital age.

Resolving this issue is especially essential nowadays, as the field of education increasingly shifts towards technology-enhanced learning. Beginner English teachers represent a generation shaped by digital culture, which may influence their pedagogical orientation, decision-making, and adaptation to TPACK principles. Investigating their perspectives can thus reveal how technological literacy interacts with pedagogical and content knowledge, enriching the discourse on effective and context-sensitive TPACK implementation in ELT classrooms. Furthermore, this study is conceptually grounded from Schmid et al. (2020), who declare that TPACK framework, which integrates technology, pedagogy, and content as essential dimensions of teacher knowledge. It also draws upon the principles of digital-based learning (Syafryadin et al., 2022), which emphasize ICT's transformative role in promoting student-centered and interactive learning. In the ELT context, this perspective aligns with the growing demand for teachers who can creatively integrate technology to foster communicative competence and learner engagement.

Therefore, this research investigates beginner English teachers' perspectives on the implementation of the TPACK learning model in ELT classrooms. It explores how these

teachers perceive the interconnection between technological, pedagogical, and content knowledge, the challenges they encounter in applying TPACK principles, and the strategies they employ to harmonize these elements in their teaching. By focusing on this group, the study aims to offer a deeper understanding of how beginner teachers navigate technology integration in the digital age and to contribute meaningful insights to the ongoing development of TPACK-oriented teaching practices in English language education.

2. RESEARCH METHOD

This study employed a qualitative descriptive approach within a case study design to examine beginner English teachers' perceptions and enactment of TPACK framework in English language classrooms. A qualitative case study was considered appropriate because it facilitates a holistic and contextualised understanding of complex teaching practices and enables in-depth exploration of the dynamic interaction among technology, pedagogy, and subject content in authentic school settings (Lim, 2025; Yang & Dong, 2024). This design allowed the researcher to capture the situational experiences and professional reasoning processes of beginner teachers in a naturalistic environment.

The research participants consisted of English teachers at junior high schools in Yogyakarta. Participants were selected through purposive sampling to ensure the inclusion of information-rich cases. The selection criteria required that participants (a) were practising English teachers with fewer than three years of teaching experience, (b) were actively teaching during the 2024/2025 academic year, and (c) had prior experience integrating technological tools into classroom instruction. Based on these criteria, two novice teachers—coded R1 and R2—were recruited. Although small, this sample size aligns with methodological guidance for qualitative case studies that privilege depth of analysis and contextual insight over statistical generalisation (Cena et al., 2024).

Data were gathered using semi-structured interviews. The interview protocol was developed from the TPACK framework of contemporary ELT studies by (Anggrarini & Yulianawati, 2025). The question has 4 dimensions: content knowledge, pedagogy knowledge, technology knowledge. Credibility of the findings was strengthened through *member checking* with participants and *peer debriefing* with an experienced qualitative researcher (Ahmed et al., 2025). Reliability was enhanced by maintaining a comprehensive audit trail and analytic memos throughout the data collection and analysis processes.

Data analysis followed the six-phase thematic analysis outlined by Braun and Clarke (2006, as cited in (Ahmed et al., 2025): (1) familiarisation with the data, (2) generation of initial codes, (3) searching for candidate themes, (4) reviewing and refining themes, (5) defining and naming themes, and (6) producing the analytic report. The entire coding process was conducted in a systematic and well-organised manner, with codes, excerpts, and theme development carefully documented. This approach provided a structured and transparent analytic pathway, ensuring clear traceability from the raw data to the final sub-themes and overarching themes, and maintaining coherence between the empirical evidence and the study's interpretive claims (Ahmed et al., 2025).

3. FINDINGS AND DISCUSSION

This study examined how beginner English teachers perceive and enact the Technological Pedagogical Content Knowledge (TPACK) framework within their classroom practice. The findings reveal how these novice educators interpret and apply the core components of TPACK—content knowledge (CK), pedagogical knowledge (PK), and technological knowledge (TK)—and how they interweave these domains to design meaningful English learning experiences. The analysis also uncovers the challenges they encounter in integrating technology with pedagogy and content, alongside the adaptive strategies they employ to maintain instructional balance in digitally mediated classrooms.

Finding

The data findings that have been obtained are analyzed by explaining the teachers' perception of the TPACK learning model in ELT Classrooms. TPACK survey distributed in

this research was taken from the work of (Cutrim Schmid, 2008) focused on Content Knowledge (CK), Pedagogical Knowledge (PK), Pedagogical Content Knowledge (PCK), Technological Knowledge (TK), Technological and Pedagogical Knowledge (TPK), and Technological Pedagogical and Content Knowledge (TPACK) in ELT classrooms.

a. Content and Pedagogical Knowledge as the Core

This section presents findings related to teachers' mastery of content and pedagogy, which serve as the core of their professional competence. The analysis focuses first on their understanding of English content knowledge, followed by their pedagogical approaches in the classroom.

1) CK (Content Knowledge)

This domain contains information about the teachers' comprehension of English content knowledge in ELT classrooms, teachers' perceptions about the importance of content knowledge comprehension in teaching English.

To begin with, both teachers reflected on how they evaluate their own understanding of English content knowledge.

> R1: *"I evaluate my comprehension by analyzing the students' scores and diagnostic tests. If the students' scores had increased, so that I can conclude my comprehension of the content knowledge is appropriate."*

> R2: *"I am self-evaluating by observing the students' enthusiasm and comprehension during the learning activities. I also analyze the students' scores from their assessment scores."*

According to the results above, both of the teachers evaluate themselves about their content knowledge comprehension by analyzing and observing their students during the learning activities. It includes the students' enthusiasm, comprehension, and scores.

Furthermore, both teachers emphasized the significance of mastering content knowledge as a foundation for effective teaching.

> R1: *"Mastering content knowledge in ELT classrooms is important because that is a foundation for a teacher to be able to teach well."*

> R2: *"In my point of view, mastering English content knowledge is very necessary because teachers are facilitators for their students who have important roles in guiding the students to utilize many kinds of learning platforms."*

These responses highlight that both teachers perceive content knowledge as a critical component of teaching expertise. They believe that a solid command of subject matter enables teachers to guide and support students' effectively in learning English.

2) Pedagogical Knowledge (PK)

This domain includes the aspects teaching methodology and its suitability with the students' needs, and the teaching strategy to maintain student attention and engagement.

> R1: *"Usually, I use discussion, role-playing, and games as my teaching method in ELT classrooms. Before using that kind of teaching method, first of all, I conduct a diagnostic test first."*

> R2: *"Before I decide on the proper teaching method, I observe them first, and then I conduct a diagnostic test to see the students' needs. Based on the results, I usually teach them by doing discussion, vocabulary enrichment, using funny games, and sometimes using project-based learning teaching methods in several contents."*

Those results stated that both of the teachers conducted diagnostic tests to identify the student's needs in deciding the proper teaching methods. There is a slight difference here, the R2 also observes the students during the learning activities to decide the proper teaching method. Furthermore, in the use of teaching methods, both of them almost have the same teaching method. The differences are on the R2 who use additional teaching methods, namely word class enrichment and project-based learning teaching methods.

R1: "I usually teach my students communicatively and interactively by conducting ice-breaking to gain the students' engagement."

R2: "To maintain the students' attention and engagement, I always inform them that they will get additional points from being active during the English lesson."

The strategies of those teachers are not the same and have different ways to maintain the student's attention and engage the students' enthusiasm. The R1 has the strategy on the teaching methods, meanwhile the R2 on the assessment by giving additional scores.

In summary, both teachers consistently placed CK and PK at the centre of their planning and classroom practice. They began each unit with short diagnostic assessments to identify students' language proficiency and learning needs. R1 reported frequent use of group discussions, role-plays, and interactive games, whereas R2 incorporated project-based tasks and vocabulary enrichment. These findings reinforce the claim of Nurdin, et al. (2024) that strong mastery of content and pedagogy remains the essential foundation of TPACK.

b. Distinct Integration Pathways

Building on the foundation of content and pedagogical knowledge, this theme reflects the teachers' ability to merge both dimensions into meaningful instructional practices. It highlights how integration varies according to teaching context, content focus, and individual teaching philosophy.

1) Pedagogical Content Knowledge (PCK)

This domain contains Pedagogical practice in the form of the Integration of teaching methods with English content, The example of teaching English skills by using an effective pedagogical approach, and the way to overcome the complex teaching concepts faced by teachers.

To begin with, both teachers described how they align teaching methods with specific English skills and content.

R1: "I integrate the teaching method with the English content by adapting the contents or skills with the teaching method. For example, the skill is speaking and the materials about the narrative text, so I use role-playing as the teaching method."

R2: "The way I am integrating teaching method with the English contents is by connecting with the daily activities that use the authentic methodology and materials so that it would be easier to be comprehended by the students."

The results of the interview above state that the teachers have different teaching methods Integrated with the English content. R1 integrates the teaching method by adapting the skills and materials discussed. Meanwhile, the R2 integrates the teaching method by connecting the daily activities with the materials discussed using authentic teaching methods and materials.

Furthermore, both teachers discussed the teaching methods they commonly apply in ELT classrooms.

R1: "I use the contextual and relevance teaching method in teaching English kills."

R2: "I use Grammar Translation Method (GTM) in vocabulary class, and conduct vocabulary enrichment to increase the student's vocabulary mastery."

The findings indicate that R1 prioritizes contextual and relevant teaching approaches that relate to real-life situations, whereas R2 tends to use the Grammar Translation Method for vocabulary development, supplemented with vocabulary enrichment activities. These choices demonstrate their different orientations toward teaching methods: R1 emphasizes communicative and experiential learning, while R2 focuses on linguistic accuracy and vocabulary building.

When facing complex or abstract English concepts, both teachers reported relying on contextual teaching methods to facilitate understanding.

R1: "I use the Contextual teaching method to overcome the complicated English concept during the teaching and learning process."

R2: "In overcoming the complicated and complex English concept, I have been implementing the contextual and authentic teaching method."

From these responses, it can be concluded that both teachers use contextual teaching as their main strategy for simplifying complex concepts. Additionally, R2 complements this approach with authentic materials and methods to further support students' comprehension.

In summary, both respondents demonstrated a thoughtful integration of teaching methods with English language content, adapting their instructional approaches to students' needs and learning contexts. R1 emphasized contextual and skill-based strategies, such as role-playing, to strengthen students' communicative competence, whereas R2 employed authentic activities and the Grammar Translation Method (GTM) to enrich vocabulary mastery and comprehension. **These findings are closely related to the concept of Pedagogical Content Knowledge (PCK), which highlights the teacher's ability to transform subject matter into forms that are comprehensible and accessible to learners.** The teachers' practices exemplify how pedagogical decisions—such as method selection, contextualization, and material adaptation—are informed by their deep understanding of both content and pedagogy, reinforcing PCK as the foundation of effective English Language Teaching. This divergence extends the findings of Yennie, R., et al. (2024), who highlight the role of individual preference and professional identity in shaping TPACK practice.

c. Purposeful Use of Technology

1) Technological Knowledge (TK)

This domain contains the technological tools used in ELT classrooms. It includes the technological tools that are utilized by the teachers and the kind of applications that could be used in ELT classrooms but have not been implemented in their classroom.

To begin with, both teachers reported using various technological tools to support their teaching activities.

R1: "I use PPT, LCD, Laptop, Blukid, Quizzes, and Kahoot as the learning media in English classrooms."

R2: "ICTs that are used in my class include Laptop, LCD, Gadgets, Quizzes, Worksheet, Word wall, PPT, and Canva."

The data suggest that there are several similar technological tools used by the teachers, such as laptops, LCD, PPT, and quizzes. The R1 uses additional technology, namely Blukid and Kahoot. Meanwhile, the R2 also uses other additional technologies, such as Gadgets, Worksheets, Word Wall, and Canva.

Despite these efforts, both teachers acknowledged certain technological constraints that limit the use of more advanced digital applications.

R1: "I have not used word wall in my class, because it needs more technological tools in the implementation."

R2: "Actually, I would like to use Duolingo and VR in my class to improve the student's English competency. However, I have not implemented them because of several obstacles such as the ICT tools needed."

According to the results, both of the teachers have not implemented the kinds of language learning applications because of the same obstacles in the form of technological facilities.

2) Technological and Pedagogical Knowledge (TPK)

This domain explains the technological application in ELT classrooms. It includes the ICT Integration in ELT classrooms, the practical example of ICT use to improve students' comprehension during the teaching and learning process, and the obstacles in Integrating ICT in ELT classrooms.

In terms of pedagogical application, the teachers reported distinct yet complementary approaches to utilizing ICT for learning and assessment purposes.

R1: "The Implementation of ICT in my class is as the interactive learning media during the teaching-learning process. For example, I utilize PPT to explain the materials."

R2: "I have been utilizing ICT as learning media and assessment. I utilize PPT and LCD to explain the materials, using worksheets and quizzes as the e-assessment."

The ICT utilization in the teachers' ELT Classrooms applies different roles during the teaching-learning process. The R1 only utilizes it as an interactive learning media. Meanwhile, in the R2 classroom is not only the learning media but also the media assessment.

Furthermore, both teachers provided practical examples of how ICT supports students' learning engagement and comprehension.

R1: "Usually, I present an Illustration about the materials discussed by using YouTube. For example, the material is about a narrative text, So I present an example of a fairytale. It makes the students interested with full attention to the materials. Then, I utilize their attention to explain narrative text materials."

R2: "I utilize quizzes as summative assessments. During the evaluation, the students looked more focused and had high enthusiasm in working on the task. They also had a higher score by using that kind of technological assessment."

The teachers provided different practical of technology implementation. R1 explained the use of the YouTube Platform to present illustrations or videos related to the materials discussed. Meanwhile, R2 explained the use of Quizzes as the media evaluation in the Summative assessment.

In terms of addressing difficulties in teaching English content, the teachers reported employing different strategies.

R1: "Usually, I solve my difficulties by reading books about the contents that will be discussed, acquiring more information from many platforms in the internet, and also having a discussion with qualified and experienced teachers.

R2: "I overcome my difficulties during my teaching by always learning and developing myself in the educational field, and also implementing the proper learning media with the students' needs."

According to the results above, the teachers have different ways of overcoming their difficulties in teaching English. R1 overcomes it by reading books, gaining more information,

and having discussions. Meanwhile, the R2 overcomes the difficulties by developing herself also implementing the learning media with the students' needs.

In terms of technological challenges, both teachers identified key barriers that influence ICT integration in their classrooms.

> R1: "The hardest challenge in integrating technology in ELT classroom is in the availability of the ICT tools. It makes it hard to decide the proper technology to be implemented in ELT classroom because the school still lacks in ICT facilities. Furthermore, it also appears that any technological issues during the use of ICT in ELT classrooms."

> R2: "The hardest obstacle for me is the difference in Students' technological comprehension. In mastering technology, the students also have different abilities on it. The differences hinder me from implementing the ICT properly. Because it wastes more time in explaining and guiding the use of those ICT tools."

The teachers faced different obstacles in integrating ICT in their ELT Classrooms. R1 stated that the hardest challenge in integrating technology in ELT classrooms is in the availability of the ICT tools, it is related to deciding technological tools because of the limited technological facilities. Meanwhile, R2 stated that the hardest obstacle for me is the difference in Students' technological comprehension. It is related to the time. Because it will waste more time in explaining and guiding the use of those ICT tools.

In summary, the participants demonstrated substantial technological knowledge by integrating diverse digital tools into lessons. Shared resources included laptops, LCD projectors, and PowerPoint slides. R1 added Blukid and Kahoot for quizzes and collaborative tasks, while R2 employed Wordwall, Canva, and students' own mobile devices to support assessment and creative output. Technology was used not only for presentation but also for formative evaluation and learner engagement, a pattern consistent with the observations of Efendi et al., (2024). **In addition,** while both teachers actively seek strategies to address instructional and technological barriers, their experiences underline the importance of institutional support and digital readiness. Effective integration of ICT in ELT classrooms requires not only teachers' adaptive competence but also sufficient technological infrastructure and equitable student access to digital literacy.

d. Reflective Understanding and Application of TPACK in ELT

Following the exploration of pedagogical integration, this theme focuses on how teachers purposefully employ technology to enhance English Language Teaching (ELT). It examines both the technological tools they use and the ways these tools are integrated with pedagogical and content knowledge in classroom practices.

1) Technological Pedagogical and Content Knowledge (TPACK)

This domain contains the perspective and implementation of the TPACK learning model in ELT classrooms. It includes the teachers' beliefs of their competency in implementing technological, pedagogical, and content knowledge in ELT classrooms and the strategy in developing English Language Teaching by combining effectively the contents, Pedagogy, and technology.

To begin with, both teachers reported conducting self-evaluations to measure the effectiveness of their technology integration in ELT classrooms.

> R1: "I am self-evaluating by observing the students' enthusiasm and their scores. If the student's enthusiasm and scores Increase, I could conclude that the technology implementation in my class is successful."

> R2: "I am evaluating the success of ICT integration in my class by observing the students' enthusiasm, focus, and learning motivation. Furthermore, I am also analyzing the students' comprehension in their scores"

The data reveal that both teachers rely on students' engagement and achievement as indicators of their success in integrating technology into teaching. While both emphasize enthusiasm and academic performance, R2 extends her evaluation to include students' focus and motivation, suggesting a broader pedagogical reflection.

Regarding strategies for implementing TPACK, the two teachers demonstrated distinct yet complementary approaches.

> *R1: "I have been exploring technological learning media in the kinds of tools, websites, applications, etc. that could be used in English Language Teaching. I always learn many times to find the suitability of technology and the English contents."*

> *R2: "My strategy is starting by mastering the contents first, followed by understanding the student's needs, then implementing the technology in English Language Teaching based on the contents and students needs."*

The teachers have different strategies for developing ELT using the TPACK learning model. The strategy that is implemented by R1 is exploring. He explores many types of technological learning media in the kinds of tools, websites, applications, etc. that could be used in English Language Teaching. He also learns many times to find the suitability of technology and the English content. Meanwhile, the R2 implements several strategies, starting by mastering the contents first, followed by understanding the students' needs, and then implementing the technology in English Language Teaching based on the contents and students' needs.

Both teachers also articulated their views on the significance of the TPACK framework in ELT classrooms.

> *R1: "The implementation of the TPACK learning model in the ELT classroom is important related to the rapid development of technology. Technology is expected to be able to improve students' English skills."*

> *R2: "In my point of view, it is very necessary. Because, TPACK could build interactive, interesting, and enjoyable learning activities. So that, it could increase the students' learning motivation."*

The teachers' statement mentions that the implementation of the TPACK learning model in ELT Classrooms is necessary. However, they have different reasons for it. R1 stated the reason related to the rapid development of technology, which is expected to be able to improve students' English skills. Meanwhile, R2's statement is related to the learning activities in the ELT classroom. She explained that the TPACK learning model could build interactive, interesting, and enjoyable learning activities. So that, it could increase the students learning motivation.

In summary, both participants viewed TPACK as vital for creating interactive and motivating English lessons. R1 emphasised technology's role in improving students' communicative skills, while R2 valued its capacity to foster a positive classroom atmosphere. However, structural and contextual constraints remained. R1 cited limited school ICT facilities, and R2 observed uneven digital literacy among students. These challenges mirror the concerns reported by Resi et al., (2023) regarding the need for reliable infrastructure and equitable digital access in Indonesian schools. In short, These findings provide new evidence that early-career teachers can enact TPACK flexibly when supported by sufficient resources and professional autonomy.

The findings of this study reveal that beginner English teachers demonstrate a developing yet reflective understanding of the TPACK framework, aligning with (Schmid et al., 2020), who view TPACK as a dynamic interplay among content, pedagogy, and technology in authentic teaching contexts. The participants' emphasis on content and pedagogical knowledge as the foundation of effective instruction underscores that novice teachers still prioritize traditional teaching competencies as the base for technology

integration. This aligns with Nurdin et al., (2023) who argue that a solid grasp of pedagogical and content knowledge is essential for teachers to make informed instructional decisions and adapt teaching strategies to learners' needs.

The teachers' responses show that content knowledge (CK) and pedagogical knowledge (PK) form the core of their professional competence. Both participants began lessons with diagnostic assessments to identify learners' proficiency and needs, then, selected appropriate teaching methods such as discussion, role-play, or project-based learning. This practice aligns with (Krauskopf et al., 2018), who assert that pedagogical reasoning and contextual adaptation are key to balancing the TPACK domains. The emphasis on student-centered and diagnostic-driven approaches also echoes the view of Anggrarini & Yulianawati (2025), who state that TPACK development requires experimentation with technology anchored in disciplinary content and learner characteristics.

Regarding Pedagogical Content Knowledge (PCK), both teachers exhibited the ability to transform linguistic concepts into comprehensible learning activities. R1 prioritized contextual and communicative approaches such as role-playing for speaking skills, while R2 emphasized authentic materials and the Grammar Translation Method for vocabulary development. This differentiation supports the argument of Ismail et al. (2023), which declare that teachers' individual teaching philosophies and identities influence the ways they enact TPACK in their classrooms. Moreover, the preference for contextual and authentic learning resonates with Inayati et al. (2024) who found that beginner English teachers tend to use interactive and real-world applications to sustain motivation and strengthen comprehension.

In terms of Technological Knowledge (TK) and Technological Pedagogical Knowledge (TPK), both teachers demonstrated awareness of diverse digital tools—such as PowerPoint, quizzes, Wordwall, and Kahoot—and integrated them for instructional delivery and formative assessment. Such purposeful use of technology corroborates the observations of Inayati et al., (2024), who reported that beginner English teachers frequently adopt interactive applications and game-based platforms to sustain student motivation and improve learning outcomes. However, the study also identified contextual barriers, including limited ICT facilities and disparities in students' digital literacy. These constraints reflect broader systemic issues reported by Ilahude et al. (2023) emphasizing the importance of infrastructure readiness and digital equity in successful technology-enhanced education.

Both teachers revealed an evolving but meaningful engagement with the integrated TPACK construct, as they connected technological, pedagogical, and content knowledge to design interactive lessons. Their evaluative reflections—using students' enthusiasm, focus, and scores as indicators of success. R1's exploration of various digital tools and R2's structured sequence of mastering content, identifying learners' needs, and selecting appropriate technologies illustrate two distinct yet complementary pathways toward TPACK enactment. This finding resonates with the ecological-TPACK perspective proposed by Yang & Dong (2024), which posits that teachers' technological implementation is shaped by both personal agency and contextual affordances.

Although both participants acknowledged the transformative role of technology in enhancing English language learning, their reflections also indicate that effective TPACK implementation depends on institutional and professional support. Limited resources, inconsistent access to ICT, and varied student proficiency in using digital tools hindered the optimal use of technology. These findings corroborate the arguments of Sari et al. (2021)who emphasize that successful technology integration in ELT requires not only teachers' competence but also systemic backing from schools and ongoing professional development.

Taken together, these findings contribute to the ongoing discourse that TPACK among beginner English teachers is both developmental and context-dependent. Beginner teachers display strong pedagogical awareness and a willingness to experiment with digital tools, but their implementation remains bounded by material and institutional limitations. Therefore, consistent with (Anggrarini & Yulianawati, 2025) and Nguyen et al. (2023), it is essential that teacher education programs and school policies provide structured opportunities for novice educators to engage in reflective practice, digital experimentation, and collaborative learning. Strengthening these supports will enable teachers to move from a developing understanding

of TPACK to a transformative practice that effectively foster communicative competence, learner engagement, and digital literacy in the 21st-century ELT classroom.

4. CONCLUSION AND SUGGESTIONS

This study concludes that beginner English teachers demonstrate a reflective and adaptive understanding of the TPACK framework, effectively integrating content, pedagogy, and technology in their classroom practices. Both participants placed strong emphasis on content and pedagogical knowledge as the foundation for teaching, supported by technological tools that enhance engagement and assessment. Despite their differences—one adopting a technology-driven and the other a content-driven pathway—both teachers managed to design interactive and meaningful English learning experiences. However, their implementation was constrained by limited ICT infrastructure and varying student digital literacy. These findings highlight that effective TPACK integration requires not only teacher competence but also institutional support and equitable access to technology. Therefore, professional development programs should provide opportunities for beginner teachers to explore digital tools contextually and align them with pedagogical goals to foster sustainable, technology-enhanced English language teaching.

This study is limited by its small sample size and single geographical context, which restrict the generalizability of the findings. Future studies could adopt mixed-methods designs, combining larger-scale TPACK surveys with classroom observations and pre-post learning assessments. Quasi-experimental designs that test targeted professional development—such as content-integrated technology workshops—would allow stronger causal claims. Researchers should also measure students' digital literacy to examine how it moderates technology integration. Comparative studies across schools with different ICT infrastructures (urban vs. rural) would clarify how contextual factors shape TPACK enactment.

REFERENCES

Ahmed, S. K., Mohammed, R. A., Nashwan, A. J., Ibrahim, R. H., Abdalla, A. Q., M. Ameen, B. M., & Khdhir, R. M. (2025). Using thematic analysis in qualitative research. *Journal of Medicine, Surgery, and Public Health*, *6*, 100198. https://doi.org/10.1016/j.glmedi.2025.100198

Ammade, S., Mahmud, M., Jabu, B., & Tahmir, S. (2020). TPACK model based instruction in teaching writing: An analysis on TPACK literacy. *International Journal of Language Education*, *4*(1), 129–140. https://doi.org/10.26858/ijole.v4i2.12441

Andriany, Y., & Adnan, A. (2022). An Analysis of EFL Teachers' Perceptions on the Integration of TPACK in Teaching English at SMA-Man in Solok. *Journal of English Language Teaching, 11*(2), 304–313. https://doi.org/10.24036/jelt.v11i2.116290

Anggrarini, N., & Yulianawati, I. (2025). The Adoption of TPACK in Teaching English By EFL Pre-Service Teachers during the Apprenticeship Program in The Merdeka Curriculum Framework. *English Journal of Indragiri*, 9(2), 260-280. https://doi.org/10.61672/eji.v9i2.2900

Aulia, V. (2021). Ways of EFL Teachers in Developing Their Pedagogical Competences. *Voices of English Language Education Society (VELES), 5*(1), 1-9. https://doi.org/10.29408/veles.v5i1.3032

Cena, E., Brooks, J., Day, W., Goodman, S., Rousaki, A., Ruby-Granger, V., & Seymour-Smith, S. (2024). Quality Criteria: General and Specific Guidelines for Qualitative Approaches in Psychology Research. A Concise Guide for Novice Researchers and Reviewers. *International Journal of Qualitative Methods*, *23*. https://doi.org/10.1177/16094069241282843

Cutrim Schmid, E. (2008). Potential pedagogical benefits and drawbacks of multimedia use in the English language classroom equipped with interactive whiteboard technology.

Computers and Education, *51*(4), 1553–1568. https://doi.org/10.1016/j.compedu.2008.02.005

Elas, N. I. B., Majid, F. B. A., & Narasuman, S. Al. (2019). Development of Technological Pedagogical Content Knowledge (TPACK) for English teachers: The validity and reliability. *International Journal of Emerging Technologies in Learning*, *14*(20), 18–33. https://doi.org/10.3991/ijet.v14i20.11456

Ilahude, F. F., Inawati, I., & Pratolo, B. W. (2023). Teachers' Tpack Development In English Language Teaching: A Systematic Review. *Premise: Journal of English Education*, *12*(3), 911. https://doi.org/10.24127/pj.v12i3.7429

Inayati, N., Lestari, I. W., Zumrudiana, A., Zainuddin, M., & Lestari, W. (2024). Investigating Pre-Service English Teachers' Experience In Implementing TPACK During Teaching Practice On Independent Curriculum. *Eduvelop: Journal of English Education and Development*, *8*(1) , 31-51. https://doi.org/10.31605/eduvelop.v8i1.4078

Ismail, S., Ling, Z., Nawir, E., Alber, A., & Fauziah, D. (2023). Review of Instructional Digital Media to Path Teachers' Digital Competence on Philosophical Perspective: Distraction or Diversion. *International Journal of Education and Digital Learning (IJEDL)*, *1*(4), 139–154. https://doi.org/10.47353/ijedl.v1i4.24

Krauskopf, K., Foulger, T. S., & Williams, M. K. (2018). Prompting teachers' reflection of their professional knowledge. A proof-of-concept study of the Graphic Assessment of TPACK Instrument. *Teacher Development*, *22*(2), 153–174. https://doi.org/10.1080/13664530.2017.1367717

Lim, W. M. (2025). What Is Qualitative Research? An Overview and Guidelines. *Australasian Marketing Journal*, *33*(2), 199–229. https://doi.org/10.1177/14413582241264619

Nguyen, D. T., Hitendra, P., & Andy, Y. (2023). Understanding Teachers' Knowledge and Skills via Technological Pedagogical and Content Knowledge Framework. *English Language Teaching*, *16*(6), 91. https://doi.org/10.5539/elt.v16n6p91

Nurdin, N., Anugrawati, N., & Mannong, A. B. M. (2023). Analyzing The Implementation Of Technological Pedagogical Content Knowledge (TPACK) By Efl Teachers In The Classroom. *Journal of Computer Interaction in Education*, *6*(1), 49–60. https://doi.org/10.56983/jcie.v6i1.591

Sari, Y. R., Drajati, N. A., So, H. J., & Sumardi. (2021). Enhancing efl teachers' technological pedagogical content knowledge (Tpack) competence through reflective practice. *Teflin Journal*, *32*(1), 117–133. https://doi.org/10.15639/teflinjournal.v32i1/117-133

Schmid, M., Brianza, E., & Petko, D. (2020). Developing a short assessment instrument for Technological Pedagogical Content Knowledge (TPACK.xs) and comparing the factor structure of an integrative and a transformative model. *Computers and Education*, *157*. https://doi.org/10.1016/j.compedu.2020.103967

Syafryadin, Suherdi, D., Nadya, N. L., Harahap, A., & Astrid, A. (2022). Teacher readiness and challenges in creating learner autonomy in ICT-based English learning activities. *Indonesian Journal of Applied Linguistics*, *11*(3), 708–717. https://doi.org/10.17509/ijal.v11i3.34667

Yang, T., & Dong, C. (2024). What influences teachers' implementation of ICT in early childhood education? A qualitative exploration based on an ecological-TPACK framework. *Computers and Education Open*, *7*. https://doi.org/10.1016/j.caeo.2024.100228