



Exploring the Way Culture Shapes the Enactment of TPACK in Indonesian EFL Classrooms

Nurfisi Arriyani¹, Rudi Hartono^{2*}, Sri Wuli Fitriati³, Hendi Pratama⁴

¹⁻⁴Doctoral Program of Language Education, Universitas Negeri Semarang, Indonesia

*Correspondence to: rudi.hartono@mail.unnes.ac.id

Abstract: In the rapidly evolving landscape of digital education, understanding how cultural values influence technology integration is essential. This study investigates how Indonesian EFL lecturers make pedagogical decisions and enact the Technological Pedagogical Content Knowledge (TPACK) framework in culturally grounded ways. Drawing on both quantitative and qualitative data, the research involved a questionnaire distributed to 59 lecturers and in-depth interviews with 13 participants from various regions and institutions in Indonesia. The findings reveal that lecturers' selection of digital tools and instructional strategies are mediated by beliefs about teacher authority, student respect, classroom order, and cultural appropriateness. While some lecturers, particularly older ones, favored structured, teacher-led digital practices, younger lecturers were more open to integrating interactive tools, though still within cultural boundaries. Rather than adopting global pedagogical models wholesale, participants actively adapted them to fit local expectations. The study concludes that TPACK is not a culturally neutral framework but is redefined by educators in context. This research contributes to the growing body of knowledge on culturally responsive digital pedagogy and highlights the importance of integrating sociocultural awareness into teacher-training and technology-adoption frameworks.

Keywords: cultural mediation; digital pedagogy; EFL teacher education; Indonesian higher education; TPACK

Recommended citation: Arriyani, N., Hartono, R., Fitriati, S. W., & Pratama, H. (2026). Exploring the Way Culture Shapes the Enactment of TPACK in Indonesian EFL Classrooms. *Journal of Innovation in Educational and Cultural Research*, 7(2), 295-305.

INTRODUCTION

In recent years, the integration of digital technologies into teaching and learning processes has become an essential part of higher education worldwide (Arvanitis & Krystalli, 2021; Dewi et al., 2022; Díaz et al., 2024; Raju et al., 2021; Zhang, 2023). For English as a Foreign Language (EFL) lecturers, particularly in contexts such as Indonesia, this integration has been accelerated by both global educational shifts and national directives promoting the digitalization of higher education (Dewi et al., 2025; Maulida et al., 2022; Ningsih, 2023). The urgency brought on by the COVID-19 pandemic forced many lecturers to adopt online and blended teaching approaches rapidly, often without adequate preparation or support (Badriah & Permana, 2023; Mahdi & Dewi, 2025; Panigrahi et al., 2021). However, the successful implementation of technology in the classroom is not only about access to digital tools but also about how teachers integrate these tools with pedagogical and content knowledge in meaningful ways (Boonmoh et al., 2021; Santos & Castro, 2021). The concept of Technological Pedagogical Content Knowledge (TPACK), introduced by Mishra and Koehler (Mishra et al., 2023; Spector et al., 2014; Wang et al., 2018), offers a useful framework for understanding how teachers combine their technological, pedagogical, and content expertise to make informed instructional decisions in digital environments. Over the past decade, TPACK research has undergone notable expansion, reflecting a growing effort to unpack the complex interplay between technology, pedagogy, and content knowledge in teaching (Fathi & Yousefifard, 2019; Hava & Babayiğit, 2024; Rafiq et al., 2022; Said et al., 2023; Shi & Jiang, 2022; Su, 2023; Valtonen et al., 2019). Kadioğlu-Akbulut et al. (2023) argue that simply possessing high technological knowledge does not translate into strong TPACK; rather, a transformative understanding of technology use, in which ICT tools are cognitively integrated into instructional design, is more predictive of effective TPACK development. This idea is echoed in Fabian et al. (2024), who critically reviewed a broad range of TPACK-based interventions and found that, while Technological Knowledge (TK) is frequently targeted, many interventions neglect the integrated TPCK component, raising concerns about their true effectiveness. In contrast, Mishra et al. (2023) and Ning et al. (2024) push the boundaries of traditional TPACK by incorporating emerging technologies like Generative AI, advocating for a broader, more adaptive conceptualization of contextual and technological knowledge. Ning et al.'s AI-TPACK framework, in particular, offers a sophisticated model that dissects the mediation effects among core and composite knowledge elements, revealing that while technological dimensions have dominant explanatory power, their effectiveness is deeply shaped by pedagogical and content integration. Hava and Babayiğit (2024) further reinforce this direction by empirically linking digital proficiency with AI-TPACK competencies, emphasizing the need to develop targeted strategies that bridge technological skills with pedagogical application.

However, in countries such as Indonesia, cultural values, including respect for teacher authority, collectivism, and communication norms, deeply influence pedagogical decisions (Claramita et al., 2022; Setyaningrum et al., 2022). These cultural dimensions may significantly influence how lecturers decide on technology use (Huang et al., 2019; Nistor et al., 2013). National surveys and case studies have shown that many Indonesian lecturers hesitate to use tools that require open student interaction or public speaking, such as live video discussions, due to norms of modesty, indirectness, and a hierarchical classroom role (Hafifah, 2024; Musliadi et al., 2024). For instance, teachers may avoid using tools that require students to turn on their cameras due to privacy and modesty concerns rooted in local norms. Others may hesitate to use collaborative apps that position students as autonomous learners if they feel it challenges traditional teacher-centered dynamics. These decisions are not merely technical or pedagogical; they are also shaped by deeper cultural reasoning and ethical considerations. As highlighted by Ifinedo and Kankaanranta (2021) and Van Den Beemt and Diepstraten (2016), teacher technology integration should be viewed through an ecological lens, in which personal, professional, institutional, and sociocultural factors interact to shape choices.

Unfortunately, few studies have explored how these cultural values intersect with digital teaching knowledge in meaningful ways. In the Indonesian EFL context, most research tends to center on technological challenges, digital literacy levels, or the effectiveness of particular platforms (Dewi et al., 2021; Dewi et al., 2024; Suharyat et al., 2022; Suprpto et al., 2021). While these are undoubtedly important, they often overlook the underlying thought processes, beliefs, and cultural reasoning that guide lecturers in their daily pedagogical choices. Moreover, much of the TPACK literature is based on Western settings and assumptions, with limited attention to how the model operates in collectivist, high-context cultures like Indonesia, where decisions are rarely made in isolation from broader social expectations and community norms. This creates a gap in the literature not only regarding the cultural embeddedness of TPACK but also the practical implications of culturally informed tool selection in digitally mediated language classrooms. Understanding how culture shapes TPACK is critical for two main reasons. First, it allows researchers and policymakers to move beyond a one-size-fits-all model of digital integration (Villa, 2017). While global frameworks like TPACK provide a valuable foundation, their application must be adapted to local realities (Urban et al., 2018). By recognizing the cultural lenses through which lecturers make digital pedagogical decisions, institutions can design more responsive training programs, support systems, and evaluation frameworks. Second, this understanding can improve student learning experiences. When lecturers choose tools that align not only with pedagogical goals but also with students' cultural expectations, comfort levels, and communication preferences, they are more likely to foster engagement, reduce resistance, and support equitable learning outcomes.

This research is therefore grounded in the assumption that lecturers' professional reasoning about digital tool use is inseparable from their cultural context. Their TPK is not developed or enacted in a vacuum, but it is filtered through their experiences as educators, their institutional histories, and the values that shape their understanding of good teaching. This includes considerations of appropriateness, teacher authority, student-teacher relationships, and community values that can influence both the tools they choose and how those tools are used. Moreover, in the Indonesian EFL context, where English is not only a foreign language but also a subject loaded with cultural meanings and social status implications, the intersection of culture and pedagogy becomes even more pronounced (Hasnah et al., 2024; Munandar, 2023; Munandar & Newton, 2021). Lecturers were navigating multiple tensions between innovation and tradition, authority and collaboration, or global trends and local expectations (Asmayawati et al., 2024; Zahrudin et al., 2024). By examining how lecturers navigate these tensions through their TPK-informed decisions, this study aims to contribute both theoretically and practically to the growing conversation around culturally responsive digital pedagogy in language education.

To date, there remains a lack of qualitative, teacher-centered research that foregrounds how Indonesian EFL lecturers' cultural values influence their TPK and, consequently, their choices and uses of digital tools. Addressing this gap is particularly timely as institutions worldwide shift from emergency online teaching to more sustainable, culturally informed models of digital learning. Addressing this gap is particularly timely as institutions worldwide shift from emergency online teaching to more sustainable, culturally informed models of digital learning. The novelty of this study lies in its focus on the cultural mediation of TPK enactment—an aspect largely underexplored in existing TPACK literature, which tends to assume a culturally neutral application of digital pedagogy. By foregrounding the sociocultural reasoning that underlies teachers' digital instructional decisions, this study provides an original contribution to the field of language teacher education and educational technology. Exploring lecturers' lived experiences, reasoning, and reflections can help build a more grounded and inclusive understanding of how technology and pedagogy interact within specific cultural contexts. The purpose of this study is to explore how Indonesian EFL lecturers' Technological Pedagogical Knowledge (TPK) is shaped by their cultural values and how these values influence their reasoning and decision-making in selecting and using digital tools for language teaching. The study also aims to identify specific cultural considerations that contribute to or constrain their use of digital technologies, providing insight into how culturally situated knowledge can inform more effective, ethical, and context-sensitive digital pedagogy in EFL higher education.

METHODS

This study employed a mixed-method design, combining a closed-ended questionnaire and semi-structured interviews to explore how cultural values shape Indonesian EFL lecturers' Technological Pedagogical Knowledge (TPK), and how these values influence their reasoning in selecting and using digital tools for language instruction (Creswell, 2015). The two-phase approach enabled the researcher to first identify general patterns in self-reported TPK and digital tool use, and then to explore participants' pedagogical reasoning and cultural considerations in depth through interviews.

Participants were recruited using purposive sampling, with the inclusion criteria being: (1) they must be currently teaching English at the university level, and (2) they must have at least one year of experience teaching in online or blended learning formats. A total of 59 lecturers completed the questionnaire. At the end of the form, participants were asked if they were willing to participate in a follow-up interview. In the second phase, semi-structured interviews were conducted with 13 lecturers who had completed the questionnaire and agreed to be interviewed. Participants were selected using maximum variation sampling to ensure diversity in gender, institutional type (public and private), regional representation, and digital teaching experience. The demographic information of the interview participants is displayed in Table 1.

Table 1. Demographic Information of the Participants

Gender	Male	2	15.38 %
	Female	11	84.62 %
Age	<30	2	15.38 %
	30-40	6	46.15 %
	40-50	4	30.77 %
	>50	1	7.69 %
Institution	Private university	7	53.85 %
	Public university	3	23.08 %
	Private vocational	1	7.69 %
	Public vocational	2	15.38 %
Region	Java	6	46.15 %
	Sumatra	4	30.77 %
	Kalimantan	1	7.69 %
	Papua	2	15.38 %

This study used two research instruments: a closed-ended questionnaire and a semi-structured interview guide. The questionnaire was designed to assess lecturers' Technological Pedagogical Knowledge (TPK), the frequency and purpose of their use of digital tools, and their consideration of cultural values in digital teaching. The questionnaire consisted of 15 items divided into three sections: 1) self-perceived TPK competence; 2) digital tool use in relation to language skills; and 3) the influence of cultural considerations on their use of digital platforms. Items were developed using a five-point Likert scale. Several items were adapted from previously validated instruments based on the TPACK framework (Spector et al., 2014), while the researcher developed others to reflect the cultural context of Indonesian higher education (Alyeksyeyeva et al., 2022). The questionnaire was reviewed by two experts in language teacher education and educational technology to ensure content validity and cultural appropriateness. The questionnaire was previously tested for validity and reliability with 26 respondents outside the main sample, and the results showed that all items had acceptable item-total correlation coefficients ($r = 0.412-0.791$, Sig. < 0.05), indicating good construct validity. Reliability analysis using Cronbach's alpha produced a value of 0.873, suggesting high internal consistency across the instrument.

The second instrument was a semi-structured interview guide designed to elicit in-depth responses regarding lecturers' pedagogical reasoning in relation to their TPK, their decisions regarding digital tool use, and the influence of cultural norms and beliefs on those decisions. The interview guide included open-ended questions such as, "Can you describe how you choose a digital tool for teaching a particular topic?" and "Are there any cultural or social values you consider when integrating technology into your lessons?" Additional probing questions were used when necessary to encourage elaboration. The interview guide was developed in English and translated into Bahasa Indonesia for actual use.

Data analysis was conducted in two stages corresponding to the two data sources. Quantitative data from the questionnaire were analyzed descriptively using Microsoft Excel and SPSS. Frequency distributions, means, and standard deviations were calculated to summarize participants' self-reported TPK levels, the frequency of digital tool use, and the degree to which cultural considerations influenced their technology integration practices. The descriptive results provided a broad overview of trends, which were then used to inform the interview phase. Qualitative data from the interviews were analyzed thematically using Braun and Clarke's (2006) six-step approach: familiarization with the data, generation of initial codes, searching for themes,

reviewing themes, defining and naming themes, and producing the final report. A hybrid approach combining deductive and inductive coding was used. Deductive codes were drawn from the TPACK framework, particularly the TPK dimension, including "tool selection," "instructional purpose," and "pedagogical adaptation." Inductive codes were generated from the data itself, capturing cultural themes such as "hierarchical roles," "student comfort," and "community norms." NVivo 12 software was used to assist with data organization and coding.

RESULT AND DISCUSSION

The analysis revealed several culturally grounded themes influencing lecturers' digital pedagogical decisions. These include the preservation of teacher authority, sensitivity to student privacy and modesty, and culturally framed understandings of classroom engagement. Quantitative results from the questionnaire provided a general view of these tendencies, while the interview data offered deeper insights into lecturers' reasoning and experiences. The results revealed that many Indonesian EFL lecturers prioritize maintaining teacher-centered classroom dynamics when integrating digital tools. This theme was strongly supported by two questionnaire items, as presented in Table 2.

Table 2. Questionnaire items supporting Theme Preserving Teacher Authority

Item	Statement	Mean	SD
Item 4	I hesitate to use digital tools that shift authority from the teacher to the student (e.g., open-forum debates, peer grading) because they may conflict with my role as a respected figure in the classroom.	4.26	0.52
Item 12	I prefer tools that allow me to maintain teacher control (e.g., structured quizzes, limited discussion tools) rather than fully student-driven platforms.	3.79	0.62

These high mean scores indicate a strong tendency among lecturers to favor tools and teaching strategies that maintain a clear hierarchical boundary between teacher and students. This reflects broader cultural values in Indonesian education, where the teacher is traditionally viewed as an authoritative knowledge provider, and student behavior is expected to be respectful, restrained, and compliant. Interview data provided further insight into the reasoning behind this preference. For instance, Respondent R2 stated: *"In our teaching tradition, students still expect the teacher to lead. If I use tools where students dominate the discussion, it feels like I am not doing my job."* This response highlights that digital tools are not merely neutral platforms but pedagogical choices that can challenge or affirm deeply held norms about the teacher's role. The concern about losing classroom control or perceived authority is a significant factor influencing technology use.

Similarly, Respondent R5 emphasized discomfort with tools that promote peer-to-peer evaluation: *"I avoid peer feedback tools. Students are not comfortable evaluating each other; they often feel offended, which could cause tension."* This reflects the cultural expectation that assessment and correction should come from the teacher, not peers, which may be interpreted as undermining classroom harmony or violating social boundaries. Therefore, even when lecturers have access to tools that encourage collaboration or independent learning, they often choose not to use them or adapt them to preserve social and pedagogical norms.

Further evidence came from Respondent R9, who described how they moderate student use of open platforms: *"Even when using Padlet or forums, I always moderate first. Letting students post freely is risky in terms of discipline and classroom tone."* This demonstrates how lecturers actively manage and limit student autonomy within digital spaces to uphold the teacher's role as gatekeeper. Even when adopting student-centered tools, they implement them in ways that conform to traditional power structures. In summary, Theme 1 shows that cultural values significantly influence lecturers' digital teaching decisions, particularly regarding control and authority. While TPACK promotes the integration of technology, pedagogy, and content, these findings suggest that cultural alignment plays a crucial mediating role in the selection of tools and the design of pedagogical strategies. The second finding from both questionnaire responses and interview data was lecturers' concern about students' negotiation of respect and presence, especially regarding visual and verbal participation on online platforms. Many lecturers demonstrated cultural sensitivity by adjusting their teaching methods to ensure students met the cultural expectation of being respectful and responsible. Table 3 presents two key questionnaire items that support this theme.

Table 3. Questionnaire items supporting Theme Negotiating Respect and Student Presence

Item	Statement	Mean	SD
Item 2	I avoid using digital tools that require students to appear on camera due to privacy or religious/modesty concerns.	2.89	0.66
Item 3	I adjust my use of online discussion tools (e.g., Padlet, Zoom chat) based on whether students feel comfortable sharing opinions publicly.	2.69	0.68

While these scores suggest moderate agreement, the interview data reveal tensions and contradictions behind them. Some lecturers interpret a refusal to turn on cameras or to participate as disrespectful, especially when students are perceived as disengaged or passive. Respondent R6 remarked: *"I turn on the feature in Zoom to turn on all respondents' cameras. When students turn off their cameras and stay silent, I feel like they are not even in class. In our culture, being present means being seen. It shows that you value the class and respect the teacher."* This contrasts with assumptions that camera-off behavior is entirely accepted in Indonesian classrooms. In many institutional settings, being visibly attentive is interpreted as a social obligation, rooted in norms of friendliness and hierarchy.

However, the expectation of respectful presence is also limited. Teachers expect students to be communicative, but not excessively so, especially not in ways that challenge authority or disrupt classroom order. As Respondent R4 explained: *"I want them to speak, but not to dominate. If a student talks too much or interrupts, it can feel impolite, as if they are trying to challenge the teacher. That is why I muted all speakers in Zoom unless it is their turn to speak."* This illustrates the fine balance students must strike: they are expected to speak and appear friendly, but not at the expense of classroom harmony or the teacher's authority.

Even lecturers who showed flexibility about tool use acknowledged discomfort when students remained invisible. Respondent R12 shared: *"I try to understand if students are shy, but if they never speak and always hide, it becomes hard for me to teach. It feels like they do not appreciate the class."* These findings suggest that cultural expectations in Indonesian classrooms are not monolithic. They involve a set of subtle, sometimes conflicting demands. Students must be present, respectful, responsive, and modest, but not invisible or overly casual. Likewise, lecturers use digital tools to enforce visibility and respectful engagement, often interpreting silence or camera-off behavior through a cultural lens of disengagement or rudeness.

In contrast to Western interpretations of student autonomy or personal space, Indonesian lecturers view visible, respectful participation as a form of alignment with classroom norms, both moral and academic. Therefore, digital tool choices such as requiring camera use, moderating chat tools, or limiting turn-taking are not simply pedagogical decisions but cultural performances of status, face, and respect. In summary, Theme 2 reveals that Indonesian lecturers use digital tools not just to facilitate learning but to reinforce cultural expectations of presence, hierarchy, and deference. Their enactment of TPACK is guided by the need to maintain not only instructional structure but also social and moral classroom order, where visibility and moderation signal both authority and respect.

The third theme was related to cultural beliefs about how a "proper" classroom should function, and continues to shape EFL lecturers' digital pedagogical practices in Indonesia. However, the data revealed two distinct perspectives based on age and professional background: many older lecturers tend to preserve traditional expectations of a calm, orderly, teacher-led environment, while some younger lecturers are more accepting of interactive, student-driven digital practices, even if these are noisy or less formal. This theme is supported by the following questionnaire items present in Table 4.

Table 4. Questionnaire items supporting Theme: Aligning Digital Teaching with Classroom Expectations

Item	Statement	Mean	SD
Item 7	I sometimes adapt my technology use to align with traditional teaching expectations (e.g., classes being calm, structured, and teacher-led rather than noisy or overly interactive).	3.07	0.51
Item 14	I consider cultural expectations (e.g., quiet classrooms, the teacher being the main speaker) when deciding how much technology to use.	4.05	0.60

These high mean scores indicate that most lecturers are aware of traditional norms and consciously consider them when implementing digital tools. However, how they interpret and respond to those norms varies. Older respondents (aged 40+) frequently expressed a preference for structured, quiet, and teacher-directed classrooms. They adapted or limited their use of digital tools that encouraged freeform student interaction, real-time collaboration, or gamified learning. Respondent R1 reflected: *"I do not feel comfortable using tools like Kahoot too often. It gets noisy, students laugh and shout, it feels like I have lost control of the class."* Respondent R7 echoed this concern: *"For me, a good class is when students are paying attention, not when they are playing games or talking too much. I use technology, yes...but in a way that keeps things organized."* These responses reflect the influence of deeply rooted educational values that associate order, quietness, and attentiveness with academic seriousness and respect. For many of these lecturers, tools that introduce too much "play" are viewed skeptically, even when pedagogically sound.

In contrast, younger lecturers (under 40) demonstrated a more flexible and exploratory stance. They tended to view digital noise or interaction not as disruption, but as evidence of active learning. Respondent R10 explained: *"When I use games or open discussions, it becomes loud, but I think it is a good sign. It means they are participating, especially the shy students."* Respondent R13 added: *"I still set rules, but I allow more room for students to speak and laugh, even joke, during online sessions. That is how they learn better."* These

perspectives suggest that a cultural shift may be emerging among younger lecturers, who are more open to blended norms of engagement to balance respect with interaction, structure with creativity. Despite the contrasting views, both groups of lecturers are engaging in culturally reflective teaching. They are not mindlessly following digital trends but making careful decisions based on how they interpret local expectations of academic seriousness, teacher authority, and appropriate student behavior. This theme highlights that digital pedagogy in Indonesia is not monolithic. Instead, it operates within a continuum of cultural negotiation, where lecturers position themselves differently along the traditional–progressive spectrum depending on age, institutional culture, and student background.

In relation to TPACK, these findings show that the “pedagogical knowledge” domain is deeply entangled with cultural identity and generational beliefs. Whether conservative or innovative, lecturers are not rejecting TPACK, but they are customizing it to fit what they perceive as acceptable and effective teaching in their context. This theme reveals a nuanced dynamic in the implementation of digital pedagogy: while traditional classroom expectations continue to shape how many Indonesian EFL lecturers use technology, a growing number of lecturers, particularly younger lecturers, are beginning to challenge and reshape those norms. The result is a culturally grounded yet evolving interpretation of TPACK in practice, where tool use and classroom behavior reflect both continuity and change.

The fourth theme was culturally shaped views of “good teaching” and their influence on TPACK development. One of the clearest ways culture influenced lecturers’ development of TPACK was through their deeply held beliefs about what constitutes “good teaching,” often rooted in their own educational experiences and social expectations. These beliefs shaped how lecturers viewed the use of digital tools and how they integrated technology into their pedagogy. For many, TPACK was not applied as a universal model but was instead reinterpreted through local teaching traditions and cultural norms. This theme is supported by the following questionnaire item, as displayed in Table 5.

Table 5. Questionnaire item supporting Theme Cultural Views of Good Teaching and TPACK

Item	Statement	Mean	SD
Item 8	My understanding of “good teaching” is influenced by cultural values I learned as a student (e.g., being authoritative, respectful, and maintaining order in class).	4.21	0.56

The high mean score suggests that most lecturers consciously recognize that past models of teacher-centered instruction shape their teaching style. These cultural norms directly influence how they interpret their pedagogical and technological roles in the TPACK framework. In interviews, lecturers frequently described how their teaching philosophy, centered on clarity, structure, and discipline, shaped the tools they adopted. Respondent R1, a senior lecturer, stated: *“When I was a student, the teacher stood in front and spoke, and we listened. Now, even with Zoom or Google Meet, I try to keep that atmosphere. I use PowerPoint and screen sharing because I am the one delivering the content.”* This shows how a traditional classroom model is recreated within a digital space. Tools like Zoom, Google Meet, and PowerPoint are used not for collaborative learning but to maintain lecture-style delivery, reinforcing the teacher’s authoritative role. Similarly, Respondent R6 explained: *“Even when I use Google Classroom, I structure everything. Students just submit assignments. I don’t really use the discussion board. It feels messy.”*

Here, TPACK is enacted through selective technology use. While the lecturer has the technological skills to use Google Classroom, the pedagogical enactment remains one-directional. This reflects a culturally driven emphasis on teacher control and order. Other lecturers mentioned adapting even interactive tools to fit more traditional models. For example, Respondent R10 noted: *“I use Mentimeter, but only for quick quizzes, not for open responses. Too many opinions can create chaos, especially if they are not respectful.”* This shows that even within the TPK (Technological Pedagogical Knowledge) domain, tool selection and feature use are filtered through cultural expectations about what kinds of student expression are appropriate in public learning environments.

In contrast, some younger lecturers described a more flexible view of “good teaching,” shaped by both their digital fluency and evolving cultural interpretations. Respondent R12, who teaches in a private university, shared: *“I use Canva and Jamboard for group tasks. It is creative and fun. However, I still guide the activity step by step, so it stays focused.”* This illustrates a culturally nuanced form of TPACK enactment: innovation within structure. Even when lecturers use creative tools, they manage them in ways that preserve the authority and order expected in Indonesian classrooms. These findings support the argument that TPACK must be understood not only as the intersection of technology, pedagogy, and content, but also as a culturally constructed practice. The cultural belief that “good teaching” requires authority, clarity, and harmony mediates how technology is integrated, which features are used, and which tools are avoided or adapted.

In summary, the development and enactment of TPACK among Indonesian EFL lecturers is deeply influenced by cultural understandings of teacher identity and instructional propriety. Rather than adopting

technology for its own sake, lecturers shape their digital practices to align with culturally rooted conceptions of what teaching should look like. It often emphasizes order, control, and respectful engagement. As a result, tools like Zoom, Google Meet, Google Classroom, Mentimeter, Jamboard, and Canva are used strategically, not just based on their technical affordances, but based on how they align with cultural definitions of effective and appropriate teaching. The last theme in this study is that Indonesian EFL lecturers do not uncritically apply global models such as TPACK or student-centered learning. Instead, they actively adapt these frameworks to fit their institutional contexts and cultural expectations, especially regarding authority, autonomy, and participation. TPACK is not rejected but domesticated, reshaped to align with what is culturally acceptable and pedagogically effective in local classrooms. This theme is supported by the following questionnaire items, as shown in Table 6.

Table 6. Questionnaire items supporting Theme Adapting Global Models to Local Norms

Item	Statement	Mean	SD
Item 10	I believe TPACK should be interpreted differently across teaching cultures (e.g., different views of autonomy, collaboration, or student talk time).	4.12	0.52
Item 15	I have adjusted global teaching models (e.g., student-centered learning) to align with cultural expectations (e.g., emphasizing guidance rather than full independence).	3.94	0.61

These high means indicate that most lecturers recognize that culturally appropriate teaching involves more than adopting a method; it requires adapting it to local norms, particularly regarding how students are expected to behave and how learning should be managed. For instance, Respondent R3 described modifying the use of Google Docs for group collaboration: *"I let students work in groups using Google Docs, but I assign the leader and monitor the comments. If not, it becomes too informal. They need structure."* Although Google Docs supports real-time collaboration, the lecturer chose to tightly manage it, reflecting the cultural emphasis on teacher leadership and classroom discipline. This reflects an adapted form of TPACK: the lecturer knows the technology and its pedagogical use, but implements it through a culturally guided classroom dynamic. Similarly, Respondent R7 explained: *"I teach with a flipped model using YouTube videos, but I always follow it up with a quiz and structured discussion. If I leave it open, students are lost; they need clear direction."* Here, the lecturer employs innovative digital pedagogy while anchoring it in a clear, teacher-guided structure. This is consistent with the belief that student independence must be scaffolded within a respectful, teacher-led format.

Other lecturers adapted even more student-centered tools like Padlet, Quizizz, and Edmodo, but did so in ways that softened their open, participatory nature. Respondent R11 shared: *"I like Padlet, but I restrict it to one or two posts per student, and I guide the topic. Too much freedom leads to chaos or students joking too much."* These examples reveal that TPACK in this context is always filtered through cultural pedagogy. Lecturers select tools not only for their technical and instructional features but also for how well those features align with classroom harmony, formality, and respect.

Even more progressive teachers described a negotiation process. Respondent R13 stated: *"I try to be more interactive, using games like Wordwall or Bamboozle. However, I still clearly explain the rules to students. Fun is good, but too much fun can make them forget that it is still a class."* This highlights how innovation is embraced but culturally bounded. Teachers blend global tools with local sensibilities, maintaining the appearance and rhythm of a formal classroom even as they experiment with more participatory methods. This theme demonstrates that Indonesian EFL lecturers are not passive adopters of digital pedagogy—they are active cultural interpreters of global models like TPACK. While they recognize the value of student-centered learning and digital tools that promote collaboration and autonomy, they selectively adopt these practices to align with cultural values such as order, hierarchy, respect, and academic seriousness. The result is a uniquely localized enactment of TPACK that blends digital competence with deep contextual awareness.

This study set out to explore how cultural values shape Indonesian EFL lecturers' digital teaching practices, particularly how local beliefs about authority, interaction, and appropriateness influence their pedagogical decisions and enactment of TPACK. The findings confirm that TPACK is not a culturally neutral framework. Instead, lecturers apply and adjust their technological-pedagogical knowledge through the lens of local norms that balance global models with traditional expectations of what constitutes "good teaching" in the Indonesian context.

One of the most prominent findings is that lecturers strongly favor maintaining control in the digital classroom. This is evident in their preference for tools that reinforce teacher-centered practices (Zoom screen sharing, Google Meet lectures, structured Google Forms) and their hesitation to use tools that distribute power to students (e.g., open forums, peer grading, collaborative writing platforms). As Claramita et al. (2022) and Setyaningrum et al. (2022) suggest, Indonesian society tends to exhibit high power distance and collectivist values, which manifest in educational settings as respect for hierarchy and preference for directive teaching. This aligns with previous observations (Dewi et al., 2025; Ifinedo & Kankaanranta, 2021) that digital pedagogy in such contexts often reinforces rather than disrupts existing classroom hierarchies. Lecturers in this study

expressed concern that excessive student autonomy might lead to classroom disorder or a loss of respect, prompting them to limit tool features or moderate student activity, even when using globally popular platforms.

Interestingly, visibility and interaction were not automatically seen as intrusive or uncomfortable. Unlike assumptions in some Western research that camera use may conflict with student privacy, many lecturers in this study viewed visibility (e.g., turning on webcams, verbal participation) as a moral sign of respect and engagement (Claramita et al., 2022; Munandar & Newton, 2021). However, this expectation was often paired with the contradictory belief that too much informality, excessive speaking, or unmoderated participation could also be perceived as disrespectful. This tension reflects what Ifinedo and Kankaanranta (2021) describe as the interaction of sociocultural and institutional norms that guide pedagogical decision-making. In the Indonesian setting, students are expected to be simultaneously visible and respectful, friendly but not overly informal, and engaged without being disruptive. Lecturers' digital decisions, such as requiring cameras while avoiding open forums, are shaped by these complex cultural cues.

The study also found a generational contrast in how lecturers interpret digital engagement. Older lecturers tended to align more closely with traditional classroom behavior models, such as quiet, orderly, and teacher-directed. These preferences led them to avoid games, real-time chat tools, or noisy group activities. Younger lecturers, however, were more open to using gamified tools (e.g., Quizizz, Wordwall, Bamboozle), creative collaboration (e.g., Canva, Jamboard), and informal discussion spaces (e.g., WhatsApp groups), though often within structured boundaries. Rather than rejecting tradition, these younger lecturers represent a cultural evolution which Ning et al. (2024) and Mishra et al. (2023) describe as adaptive TPACK, where global pedagogies are modified and blended through contextual awareness. They respect cultural values but reinterpret them, redefining engagement to include both structure and interactivity.

While the TPACK model assumes a universal intersection of technology, pedagogy, and content knowledge, this study shows that the model is also culturally mediated (Fabian et al., 2024; Spector et al., 2014). Most lecturers agreed that TPACK needs to be interpreted differently across teaching cultures. Their enactment of TPACK reflects a deliberate balancing act: integrating technology not purely based on its pedagogical utility, but on how well it aligns with local classroom norms, institutional expectations, and teacher identity (Hava & Babayiğit, 2024; Ifinedo & Kankaanranta, 2021). Even tools designed to promote collaboration (e.g., Padlet, Google Docs) were used with constraints, such as limiting contributions, assigning leaders, or removing peer feedback options. This suggests that digital pedagogy, when filtered through cultural values, becomes adaptive and strategic. It is less about transformation, more about translation.

Finally, these findings emphasize the agency of local educators. Indonesian EFL lecturers are not passively adopting Western tools or resisting change. Rather, they are making thoughtful decisions that are either conservative or innovative based on their students' needs, institutional constraints, and their own beliefs about teaching. This reinforces recent calls (Asmayawati et al., 2024; Hasnah et al., 2024) to view teacher digital competence not simply in terms of tool mastery, but in terms of how educators navigate and respond to sociocultural complexities in their environments. This study contributes to the scientific understanding of digital pedagogy by demonstrating that TPACK enactment is not value-neutral but highly situated. It offers empirical insight into how teachers' sociocultural context shapes their interpretation and implementation of pedagogical strategies in digital settings. Taken together, the five themes of this study suggest that digital pedagogy in Indonesian higher education is shaped not only by what teachers know or can do, but by what they believe, value, and expect from their students. Rather than viewing TPACK as a universal model, this study advocates a culturally responsive interpretation that recognizes local beliefs about authority, appropriateness, and engagement as essential components of technological pedagogical reasoning. The impact of this research lies in advancing the theoretical framework of TPACK by integrating cultural considerations as core elements. It also provides practical implications for teacher education and professional development, especially in non-Western contexts where global models must be adapted to fit local realities.

CONCLUSION

This study has explored how Indonesian EFL lecturers' pedagogical decisions and enactment of TPACK are shaped by cultural values, revealing that digital teaching practices are deeply entangled with beliefs about authority, respect, student behavior, and classroom norms. The findings show that lecturers do not adopt technology in a culturally neutral manner; rather, they reinterpret and adapt global pedagogical frameworks, such as TPACK, to align with local expectations for appropriate teaching, engagement, and control. Their use of digital tools, whether to maintain visibility, structure participation, or balance student-centered learning with teacher authority, reflects a nuanced form of professional reasoning grounded in cultural awareness. These insights contribute to the broader field of teacher education and digital pedagogy by highlighting the need for culturally responsive interpretations of technology integration frameworks. This research adds to the scientific discourse by demonstrating that pedagogical knowledge in digital environments cannot be fully understood without considering cultural mediation, and it calls for future models of teacher competence that account for local values, classroom traditions, and the diverse realities of educators working in non-Western contexts. The

impact of applying these research findings is substantial: teacher training programs, particularly in Indonesia and similar cultural settings, can be enhanced by incorporating modules that address cultural considerations in digital pedagogy. Curriculum designers and policymakers can use these insights to avoid one-size-fits-all approaches and instead develop localized frameworks that support culturally sensitive technology integration. Ultimately, this research supports the development of more inclusive and effective digital education systems by promoting the recognition of culture as a central component of pedagogical decision-making.

REFERENCES

- Alyeksyeyeva, I., Chaiuku, T., Kovalchuk, I., & Galitska, E. (2022). Making Sense of Texts: EFL Students' Intercultural Competence and Interpretation Depth. *Arab World English Journal*, 13(1), 104–116.
- Arvanitis, P., & Krystalli, P. (2021). Mobile Assisted Language Learning (MALL): Trends from 2010 to 2020 Using Text Analysis Techniques. *European Journal of Education*, 4(1), 13–22.
- Asmayawati, A., Yufiarti, Y., & Yetti, E. (2024). Pedagogical Innovation and Curricular Adaptation in Enhancing Digital Literacy: A Local Wisdom Approach for Sustainable Development in Indonesia Context. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(1), 100233.
- Badriah, B., & Permana, I. (2023). Enhancing Competence in Writing Best Practices Through the Utilization of the STAR Technique. *JLER (Journal of Language Education Research)*, 6(3), 193–203.
- Boonmoh, A., Thidaporn, J., & Karpklon, S. (2021). Teachers' Perceptions and Experience in Using Technology for the Classroom Review of Literature. *Computer Assisted Language Learning Electric Journal*, 22(1), 1–24.
- Claramita, M., Findyartini, A., Samarasekera, D. D., & Nishigori, H. (2022). *Challenges and Opportunities in Health Professions Education*. Springer Singapore.
- Creswell, J. W. (2015). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Pearson.
- Dewi, D. S., Hartono, R., Saleh, M., & Wahyuni, S. (2022, September). Analisis Kemampuan Guru dalam Penggunaan Podcast pada Pembelajaran Bahasa Inggris. In *Prosiding Seminar Nasional Pascasarjana* (Vol. 5, No. 1, pp. 262-266).
- Dewi, D. S., Saptiany, S. G., & Ria, T. N. (2025). Examining the Impact of Digital Storytelling and Video-Assisted Instruction on Speaking Performance Across Self-Regulated Learning Levels in an ESP Context. *Journal on English as a Foreign Language*, 15(1), 110–134.
- Dewi, K. H. S., Sudiatmika, I. P. G. A., Rahardian, R. L., & Pradipta, I. M. (2024). Pengaruh Kompetensi Technological Pedagogical Content Knowledge (TPACK) Terhadap Keterampilan Guru SMK dalam Merancang Perangkat Pembelajaran Berbasis Digital. *Journal on Education*, 6(02), 13943-13953.
- Dewi, N. R., Rusilowati, A., Saptono, S., Haryani, S., Wiyanto, W., Ridlo, S., Listiaji, P., & Atunnisa, R. (2021). Technological, Pedagogical, Content Knowledge (TPACK) Research Trends: A Systematic Literature Review of Publications Between 2010 - 2020. *Journal of Turkish Science Education*, 18(4), 589–604.
- Díaz, B., Nussbaum, M., Greiff, S., & Santana, M. (2024). The Role of Technology in Reading Literacy: Is Sweden Going Back or Moving Forward by Returning to Paper-Based Reading? *Computers & Education*, 213, 105014.
- Fabian, A., Backfisch, I., Kirchner, K., & Lachner, A. (2024). A Systematic Review and Meta-Analysis on TPACK-Based Interventions From a Perspective of Knowledge Integration. *Computers and Education Open*, 7, 100200.
- Fathi, J., & Yousefifard, S. (2019). Assessing Language Teachers' Technological Pedagogical Content Knowledge (TPACK): EFL Students' Perspectives. *Research in English Language Pedagogy (RELP)*, 7(2).
- Hafifah, G. N. (2024). Online Interaction in Public Speaking Course: Implementation and Challenges of MOOC in Students Exchange Program. *Englisia: Journal of Language, Education, and Humanities*, 11(2), 29.
- Hasnah, Y., Ginting, P., Saragih, M., Kharisma, A. J., & Sari, P. L. P. (2024). A Probe Into Local Cultural Values in Locally Produced EFL Textbooks in Indonesia. *Humanities, Arts and Social Sciences Studies*, 24(3).
- Hava, K., & Babayiğit, Ö. (2024). Exploring the Relationship Between Teachers' Competencies in AI-TPACK and Digital Proficiency. *Education and Information Technologies*, 3491–3508.

- Huang, F., Teo, T., Sánchez-Prieto, J. C., García-Peñalvo, F. J., & Olmos-Migueláñez, S. (2019). Cultural Values and Technology Adoption: A Model Comparison with University Teachers From China and Spain. *Computers and Education*, 133, 69–81.
- Ifinedo, E., & Kankaanranta, M. (2021). Understanding the Influence of Context in Technology Integration From Teacher Educators' Perspective. *Technology, Pedagogy and Education*, 30(2), 201–215.
- Mahdi, M. A., & Dewi, D. S. (2025). Students' Experiences, Engagement, and Attitudes in the English Education Revolution: The Role of Interactive Technology. *International Journal of Educational Qualitative Quantitative Research*, 4(1), 1–14.
- Maulida, N. N., Sukadi, S., & Rahayu, S. (2022). Effectiveness of The Implementation Game-Based-Learning in Increasing Student Learning Outcomes. *Jurnal Penelitian Pendidikan*, 22(3), 252–265.
- Mishra, P., Warr, M., & Islam, R. (2023). TPACK in the Age of ChatGPT and Generative AI. *Journal of Digital Learning in Teacher Education*, 39(4), 235–251.
- Munandar, M. I. (2023). Interculturality, Native-Speakerism and Authenticity: Paradoxes in Indonesia's EFL Pedagogy. *Pedagogy, Culture and Society*, 1–21.
- Munandar, M. I., & Newton, J. (2021). Indonesian EFL Teachers' Pedagogic Beliefs and Classroom Practices Regarding Culture and Interculturality. *Language and Intercultural Communication*, 21(2), 158–173.
- Musliadi, M., Triyono, S., & Jamilah, J. (2024). Enhancing Speaking Agility: Unveiling Indonesian Lecturers' Hybrid Teaching Experiences in Oral Communication Skills. *Language Learning in Higher Education*, 14(2), 401–433.
- Ning, Y., Zhang, C., Xu, B., Zhou, Y., & Wijaya, T. T. (2024). Teachers' AI-TPACK: Exploring the Relationship Between Knowledge Elements. *Sustainability (Switzerland)*, 16(3).
- Ningsih, N. L. A. B. H. (2023). The Importance of Game-Based Learning in English Learning for Young Learners in the 21st Century. *The Art of Teaching English as a Foreign Language*, 4(1), 25–30.
- Nistor, N., Göğüş, A., & Lerche, T. (2013). Educational Technology Acceptance Across National and Professional Cultures: A European Study. *Educational Technology Research and Development*, 61(4), 733–749.
- Panigrahi, R., Srivastava, P. R., & Panigrahi, P. K. (2021). Effectiveness of E-Learning: The Mediating Role of Student Engagement on Perceived Learning Effectiveness. *Information Technology and People*, 34(7), 1840–1862.
- Rafiq, K. R. M., Yunus, M. M., & Susiati. (2022). Re-Envisioning Technological Pedagogical Content Knowledge and Online Teaching Readiness of English for Foreign Language Pre-Service Teachers in Language Teacher Education. *Frontiers in Psychology*, 13, 1–6.
- Raju, R., Bhat, S., Bhat, S., D'Souza, R., & Singh, A. B. (2021). Effective Usage of Gamification Techniques to Boost Student Engagement. *Journal of Engineering Education Transformations*, 34(Special Issue), 713–717.
- Said, Z., Mansour, N., & Abu-Tineh, A. (2023). Integrating Technology Pedagogy and Content Knowledge in Qatar's Preparatory and Secondary Schools: The Perceptions and Practices of STEM Teachers. *Eurasia Journal of Mathematics, Science and Technology Education*, 19(6).
- Santos, J. M., & Castro, R. D. R. (2021). Technological Pedagogical Content Knowledge (TPACK) in Action: Application of Learning in the Classroom by Pre-Service Teachers (PST). *Social Sciences and Humanities Open*, 3(1), 100110.
- Setyaningrum, R., Wijaya, A. R., & Subagyo, S. (2022). The Characteristics of Society in Indonesian Based on the Hofstede Cultural Dimensions: Measuring the Five Indonesian Island. *International Journal of Cultural and Art Studies*, 6(1), 60–74.
- Shi, L., & Jiang, L. (2022). How EFL Teachers Perceive and Self-Evaluate the Knowledge Components in Forming Technological Pedagogical Content Knowledge (TPACK). *English Language Teaching Educational Journal*, 5(1), 1–15.
- Spector, J. M., Merrill, M. D., Elen, J., & Bishop, M. J. (2014). *Handbook of Research on Educational Communications and Technology* (Edisi ke-4). Springer.
- Su, J. (2023). Preservice Teachers' Technological Pedagogical Content Knowledge Development: A Bibliometric Review. *Frontiers in Education*, 7, 1–11.

- Suharyat, Y., Ichsan, I., Santosa, T. A., Yulianti, S., & Amalia, K. N. (2022). Literature Review: TPACK-Based Science Learning in Supporting Teacher Quality in Indonesia. *International Journal of Education and Literature*, 1(2), 44-50.
- Suprpto, N., Sukarmin, S., Puspitawati, R. P., Erman, E., Savitri, D., Ku, C. H., & Mubarak, H. (2021). Research Trend on TPACK Through Bibliometric Analysis (2015-2019). *International Journal of Evaluation and Research in Education*, 10(4), 1375-1385.
- Urban, E. R., Navarro, M., & Borron, A. (2018). TPACK to GPACK? The Examination of the Technological Pedagogical Content Knowledge Framework as a Model for Global Integration Into College of Agriculture Classrooms. *Teaching and Teacher Education*, 73, 81-89.
- Valtonen, T., Sointu, E., Kukkonen, J., Mäkitalo, K., Hoang, N., Häkkinen, P., ... & Tondeur, J. (2019). Examining Pre-Service Teachers' Technological Pedagogical Content Knowledge as Evolving Knowledge Domains: A Longitudinal Approach. *Journal of Computer Assisted Learning*, 35(4), 491-502.
- Van den Beemt, A., & Diepstraten, I. (2016). Teacher Perspectives on ICT: A Learning Ecology Approach. *Computers & Education*, 92, 161-170.
- Villa, G. (2017). *E-Learning Culture: Operationalization of a Systemic Model to Support ICT-Integration in Pre-Service Teacher Trainers' Practice* [Disertasi Doktorat, Université de Montréal]. Papyrus.
- Wang, W., Schmidt-Crawford, D., & Jin, Y. (2018). Preservice Teachers' TPACK Development: A Review of Literature. *Journal of Digital Learning in Teacher Education*, 34(4), 234-258.
- Zahrudin, F., Purwanto, A., & Budi, S. (2024). Educational System Innovations for Shaping an Outstanding Indonesian Generation. *International Journal of Current Science Research and Review*, 07(12), 9433-9437.
- Zhang, J. (2023). EFL Teachers' Digital Literacy: The Role of Contextual Factors in Their Literacy Development. *Frontiers in Psychology*, 14, 1-11.