



# From Challenges to Innovations: Investigating Teacher Agency in Technologically Mediated ELT in Rural School Contexts

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**Abstract.** This study examines rural and urban school environments to investigate how Indonesian EFL instructors exercise agency in integrating digital resources to mitigate ongoing classroom challenges. This qualitative multiple case study, informed by the Ecological Model of Teacher Agency and the TPACK framework, engaged twelve English teachers through online semi-structured interviews, online classroom observations, and reflective journaling, encompassing six junior and senior rural and urban schools across diverse geographic locations. Data triangulation, member verification, expert debriefing, and reflexivity were employed to assure the validity and reliability of the instruments and data analysis. The thematic analysis indicates that EFL teachers in both rural and urban settings encountered analogous challenges, including mixed-ability pupils and poor student enthusiasm and engagement; however, their experiences differed based on contextual factors. Urban EFL teachers required more advanced infrastructure, institutional ICT support, and a broader array of digital tools through organised platforms like Google Classroom and online video assignments. In contrast, rural educators demonstrated significant adaptive agency by utilising readily available resources such as offline media and WhatsApp, fostering participation through innovations that are culturally and locally relevant. Educators in all scenarios are likely to exert agency through strategic objectives for improving digital instruction, pragmatic responses to contextual factors, and reflective evaluations of prior experiences. The study offers valuable insights for policy and professional development tailored to local digital environments in EFL teaching and enhances theoretical comprehension by illustrating the varied practices of agency across different contexts.

**Keywords:** Challenges; Teacher Agency; Technology Mediated ELT; Rural Schools.

## 1 Introduction

The incorporation of digital technologies into English as a Foreign Language (EFL) instruction has become a prominent educational trend in the 21st century, with the potential to revolutionise language acquisition and pedagogy. Indonesia, a swiftly advancing nation marked by remarkable geographical and socio-economic variety, has experienced both inspirational and challenging transformations. Despite the growing emphasis on digital literacy and technology-enhanced instruction in national and regional plans [1], schools across various geographies still face disparities in access to resources, infrastructure, and professional development opportunities. Urban schools typically enjoy superior connectivity, more organised institutional support, and a broader array of digital resources, while rural schools frequently face unreliable internet, inadequate technological infrastructure, and insufficient training customised to their requirements [2].

Notwithstanding these contrasts, several EFL educators in both urban and rural institutions encounter analogous pedagogical challenges: heterogeneous classes, diminished student motivation, and the pressing necessity to render learning more pertinent and engaging in a digital age. In this context, the notion of teacher agency has emerged as a pivotal element affecting how educators manoeuvre and react to intricate teaching circumstances [3], [4], [5]. The concept of agency, defined as teachers' ability to make deliberate and contextually aware judgements, has gained prominence in environments where technology presents both novel opportunities and new limitations. Despite the increasing scholarly focus on teacher agency, empirical evidence regarding how EFL instructors in Indonesia exercise agency in relation to technology integration remains scarce, particularly in terms of the divergent processes in urban and rural contexts. Comparative research in this domain is limited, despite demands for more localised and nuanced narratives that recognise teachers' objectives, resources, and limitations [6]. This study seeks to elucidate how Indonesian EFL teachers in varied contexts navigate their professional identities and devise new solutions to ongoing difficulties using digital platforms. This study utilises two complementing viewpoints to elucidate how educators in varied Indonesian schools interact with technology in their EFL classrooms: the Ecological Model of Teacher Agency and the TPACK framework. Each provides a framework for comprehending the various dimensions of educators' experiences, convictions, goals, professional expertise, and the contextual factors that influence potential outcomes.

The ecological model of teacher agency, proposed by Biesta, et al., posits that agency is not an inherent characteristic that teachers either have or do not have [3]. It is a phenomenon that develops gradually, shaped by the interaction of past experiences, current demands and resources, and future aspirations. This concept delineates three dimensions of agency. The iterational dimension pertains to the influence of teachers' personal histories, professional identities, and collected experiences on their perceptions of their work and their valuation of its significance [7]. A teacher who has gained confidence from years of experimenting with blended learning may be more willing to use new digital technologies, especially in resource-constrained environments. The practical-

evaluative dimension encompasses how educators assess what is feasible and suitable within their own setting, considering institutional expectations, available technology, student requirements, and their own competencies [8]. The projective dimension encompasses the objectives and ambitions that educators possess, including visions of enhanced learning, increased student engagement, and more equal classrooms, which inform their decisions and inspire continuous innovation despite challenges. This approach elucidates how educators in urban and rural schools see and address the issues of technology integration by considering all three dimensions.

In addition to this ecological perspective, the study employs the Technological Pedagogical Content Knowledge (TPACK) paradigm established by Mishra and Koehler [9]. TPACK begins with the notion that instructing with technology transcends merely acquiring proficiency in operating devices or software. It necessitates that educators integrate three forms of knowledge in a deliberate and dynamic manner. Content Knowledge encompasses a profound understanding of English language structures, competencies, and cultural settings. Pedagogical Knowledge pertains to educators' comprehension of language acquisition processes and the formulation of lessons that captivate and assist learners. Technological Knowledge includes proficiency with digital tools and platforms, ranging from messaging applications to online evaluation systems. TPACK is particularly valuable due to its focus on the intersections between teachers' knowledge of language instruction and technology, enabling the creation of coherent, purposeful learning experiences tailored to students' realities [10]. This study examines not only the actions of teachers in adopting or adapting technology but also the underlying motivations, influenced by their personal histories, professional expertise, and the specific affordances and constraints of their contexts. This dual perspective provides a deeper comprehension of the functioning of teacher agency in daily classroom practice and its potential to foster creativity despite ongoing challenges.

This research aims to enhance academic comprehension and inform policy discussions by integrating the Ecological Model of Teacher Agency [3] with the Technological Pedagogical Content Knowledge (TPACK) framework [9]. Collectively, these perspectives provide a perspective on teacher agency as a dynamic, contextual practice influenced by knowledge, environment, and purpose rather than as an abstract capability. This research aims to capture teachers' perspectives and behaviours in various school settings to produce practical insights that promote fair and contextually relevant professional development for EFL educators. This study addresses the following research questions (RQ):

RQ1: How do Indonesian EFL teachers in rural and urban school contexts exercise agency in integrating digital tools to address classroom challenges?

RQ2: In what ways do contextual conditions such as infrastructure, institutional support, and local resources shape the forms of teacher agency demonstrated in rural and urban schools?

RQ3: How do projective, practical-evaluative, and iterative dimensions of teacher agency manifest in the use of digital tools across different school environments?

## 2 Literature Review

Over the past decade, teacher agency has garnered significant acknowledgement as a crucial factor in influencing classroom dynamics, particularly in environments where educators must continually navigate between policy directives and local circumstances. In EFL teaching, agency enables teachers to transcend predetermined curricula and tailor lectures to resonate meaningfully with their students. Tao and Gao emphasised that when educators own a sense of ownership regarding their profession, they are more inclined to explore innovative methodologies and endure challenges [11]. Nguyen and Ngo emphasised that teacher agency is crucial for converting policies into practices that effectively address learners' needs [12]. These studies emphasise that agency is not an abstract concept; it is experienced daily through decisions about resources, assignments, and interactions with students [4].

The potential of technology in language education has become nearly unquestionable. Digital tools enhance the interactivity, authenticity, and accessibility of English language instruction. Gonzalez-Vidal and Moore (2024) noted that multimedia materials and online collaboration platforms can enhance engagement and facilitate language practice in contexts pertinent to students' lives. However, this potential is frequently reduced by ongoing obstacles. Howlett and Naqvi & Zehra observed that numerous educators are either apprehensive or inundated by technology, attributable to insufficient training, constrained time, or the rapid pace of digital transformation [13], [14]. In Indonesia, this contradiction is particularly evident: while certain urban schools have adopted learning management systems and online examinations, numerous educators in underprivileged regions continue to depend on rudimentary means such as WhatsApp or pre-loaded offline resources [15]. The disparity between urban and rural schools has emerged as a persistent focus in research on digital education. Infrastructure, including reliable internet, operational gadgets, and stable electricity, is unevenly distributed [16], frequently compelling rural educators to adapt using available resources [17]. Notwithstanding these constraints, several rural EFL educators exhibit exceptional ingenuity, crafting contextually pertinent materials and repurposing commonplace instruments to facilitate learning (Liao et al., 2024). This ability to adapt and innovate highlights that, although infrastructure is significant, it does not entirely dictate instructors' capabilities.

Facilitating teachers' integration of technology necessitates consideration of their professional knowledge and convictions. The Technological Pedagogical Content Knowledge (TPACK) framework is a prevalent model for comprehending how educators integrate their knowledge of language, pedagogy, and technology. The development of TPACK is a progressive process reliant on chances for experimentation and reflection, necessitating contextualised professional development. Teachers are most advantageous when training acknowledges their established practices and allows them the freedom to experiment with concepts in their own classrooms [10].

A burgeoning corpus of scholarship examines the intersection of teacher agency and innovation in the context of restrictions faced by educators. Ruan noted that educators frequently utilise their projective agency and goals for potential learning outcomes to foster testing with new tools, despite insufficient support [18]. This aligns with results

from Southeast Asia, where educators consistently navigate the tension between modernisation expectations and local classroom reality [11]. However, comparative studies that systematically investigate how these processes manifest across various contexts are still uncommon. The literature indicates that although technology presents significant prospects for EFL learning, its integration is contingent upon teachers' feeling of agency, their professional expertise, and the resources accessible within their specific school contexts. This study seeks to further the understanding of how digital innovation manifests in practice by analysing the ways Indonesian EFL teachers in urban and rural schools manage these tensions.

### **3 Method**

This research employed a qualitative multiple case study design to explore how Indonesian EFL teachers exercise agency in integrating technology into their courses. A multiple case approach was selected to facilitate a comprehensive examination of similarities and variations across various situations, particularly in rural schools [19]. Instead of aiming for statistical generalisation, the study aimed to produce in-depth, contextual insights into how instructors manoeuvre through the opportunities and limitations that influence their daily work.

#### **3.1 Research Sites and Participants**

The study was conducted in six urban and six rural schools throughout Indonesia, totalling twelve schools. The sample encompassed teachers from both junior high schools (grades 7–9) and senior high schools (grades 10–12) to obtain diverse opinions. Schools were intentionally chosen to represent various geographic regions, infrastructural conditions, and institutional cultures. The participants possessed a minimum of three years of teaching experience and were actively employing various digital tools in their lesson, ranging from basic mobile applications to more sophisticated online platforms. This criterion ensured that participants could articulate their experiences rather than merely their objectives or intentions. Before data collection, all participants were apprised of the study's goal and their rights as voluntary contributors. They granted signed informed consent, encompassing authorisation to record interviews and observations.

#### **3.2 Data Collection Methods**

The study integrated semi-structured interviews and reflective journals to develop a comprehensive picture of instructors' practices and attitudes. Each educator participated in online interviews conducted using Zoom or WhatsApp video conversations, contingent upon their connectivity, to examine their teaching history, technological experiences, and perspectives of problems and potential. Additionally, the interview concentrated on reflections regarding particular practices and the rationale for their selections. Subsequent to the interview, educators were requested to compose brief written reflections (about one page) detailing their experiences using digital technologies. Prompts

prompted individuals to document effective elements, perceived challenges, and potential modifications they were contemplating. This amalgamation of methodologies yielded both instantaneous assessments of practice and prolonged contemplations, presenting a multifaceted perspective of agency as it developed over time.

### 3.3 Data Analysis

The data analysis employed a thematic methodology based on the framework established by Braun and Clarke [20]. Initially, all interview transcripts, observational notes, and journal entries were meticulously reviewed to gain familiarity with the subject. Preliminary codes were developed inductively, emphasising reoccurring themes associated with teacher decision-making, limitations, ambitions, and modifications. The codes were further categorised into overarching themes corresponding to the Ecological Model of Teacher Agency (iterational, practical-evaluative, projective) and TPACK domains. Member checking was performed to ensure that interpretations were anchored in participants' perspectives. Preliminary findings were summarised and disseminated to teachers, who were invited to validate or elucidate the interpretations. Their feedback facilitated the refinement of several themes and ensured that the analysis accurately reflected their experiences.

### 3.4 Trustworthiness and Ethical Considerations

A variety of tactics were employed to augment the credibility and trustworthiness of the study. Data triangulation was achieved by gathering information via interviews, observations, and journals to facilitate cross-validation of results. Expert debriefing with colleagues knowledgeable in technology integration and teacher agency offered further essential insights on the coding and topic development. During the procedure, the researchers practiced reflexivity by maintaining memos to contemplate their own preconceptions and the potential influence on their interpretations (Bergin, 2024). Ethical approval was secured from the research and community service board of the affiliated university. All data were anonymised, and pseudonyms were employed in all reporting to safeguard participants' identity.

## 4 Findings and Discussions

Data indicate that teacher agency in technology integration is evident in both rural and urban schools, albeit manifested differently based on resources and situations. Educators exhibit resolve, ingenuity, and flexibility in transforming their classrooms with available resources, consistently balancing limitations with ambitions for their students' futures. The results are organised according to the study questions outlined below.

*RQ1: How do Indonesian EFL teachers in rural and urban school contexts exercise agency in integrating digital tools to address classroom challenges?*

The research indicates that educators in both rural and urban schools were not mere recipients of digital policy, but rather proactive participants in influencing their classroom methodologies. A multitude of urban educators utilised tools such as Google Classroom, Canva, Zoom, and online quizzes to administer their lessons, especially in extensive classes where organization was paramount. Their utilisation of technology was frequently bolstered by institutional direction and instruction. In contrast, rural educators utilised simpler and more accessible tools innovatively. WhatsApp groups, pre-downloaded films, and offline slides were important in their engagement with students. Teachers, irrespective of context, discovered methods to tailor technology to their specific circumstances. They employed professional judgement, evaluating what was feasible and significant, so redefining their roles as problem-solvers in the digital classroom.

The instructors' reflective journals indicate that the integration of technology involves more than mere tool application; it requires deliberate decision-making in response to particular classroom dynamics. In urban schools, numerous educators reported utilising Google Translate, computer laboratories, PowerPoint presentations featuring movies, and interactive platforms like Kahoot or Blooket. These decisions were frequently implemented to address vocabulary deficiencies and to render reading materials less daunting for students. Educators perceived technology as a means to render studying more engaging and enjoyable, while concurrently assisting pupils in formulating ways for addressing challenging materials.

**Table 1.** Forms of agency and technology used in urban and rural schools

	Forms of agency	Forms of Technology
Urban EFL teachers	Selecting, adapting and improvising digital resources	Google Translate Computer Labs Power point with images and videos Gamified platforms: Kahoot and Blooket
Rural EFL teachers	Using audio visual media (where possible)	Power point Video Clips Songs WhatsApp messages

In rural and remote schools, the utilisation of technology was more limited, although equally impactful. Some educators continued to utilise audio-visual aids, such as basic PowerPoint presentations, musical selections, or brief video segments when feasible. Others depended on low-tech adaptations, such as utilising images or locally sourced materials, when internet or energy was inconsistent. A teacher located near the Papua New Guinea border, for instance, motivated students to perceive English as a practical tool for authentic connection with adjacent people. These stories indicate that instructors' agency was less dependent on access to advanced tools and more on their innovative repurposing of available resources to maintain student engagement. Table 1 below illustrates how urban and rural EFL instructors exercise agency in classrooms, indicating that teachers' agency manifests not only through technological adoption but also

through context-sensitive mediation. EFL educators did not merely implement digital tools; they repurposed them to enhance student motivation, address understanding deficiencies, and render English more significant.

Rural and urban educators frequently encounter analogous concerns, including pupils with varying levels of aptitude, disengaged learners, and obstacles in maintaining consistent engagement. Nonetheless, the answers they devised mirrored their divergent environments. Educators at metropolitan institutions typically employed more systematic and sophisticated digital platforms. Students were requested to finalise video-based projects or engage in group discussions using online learning platforms. In rural schools, educators frequently contended with inconsistent internet access and inadequate infrastructure. Numerous individuals utilised WhatsApp voice notes or offline assignments, occasionally integrating native motifs to enhance task engagement. The disparity underscores a significant observation: although the issues were generally same, the solutions employed by teachers were largely contingent upon their particular settings and the resources at their disposal.

Comparing rural and urban stories indicated some common issues, including low student motivation, inadequate vocabulary acquisition, and a reluctance to communicate in English. Educators in both settings frequently utilised graphics, movies, and games to stimulate engagement. The fundamental issues they encountered were quite analogous, however their responses varied according to their educational environment. Rural educators consistently highlighted challenges beyond the classroom: extensive commutes to school, inconsistent attendance, and little family involvement. Despite their desire to utilise digital tools, infrastructural obstacles hindered their endeavour. Their tactics predominantly emphasised persistence and improvisation, promoting memorisation, peer support, and contextual learning that resonated with students' daily experiences. In contrast, urban educators benefited from more dependable infrastructure and institutional ICT assistance. They successfully experimented with a broader array of online apps and maintained the utilisation of digital platforms more methodically. This enabled them to diversify educational responsibilities and incorporate technology into lesson planning more consistently. In summary, although both groups faced analogous pedagogical challenges, the extent of their digital innovation was influenced by their respective contexts: rural educators relied on resilience and adaptability, whereas urban educators integrated technology more thoroughly into daily classroom practices.

*RQ2: In what ways do contextual conditions such as infrastructure, institutional support, and local resources shape the forms of teacher agency demonstrated in rural and urban schools?*

The context in which educators operated significantly impacted the extent of agency they could exert (Cahyono et al., 2023). In urban schools, enhanced infrastructure and institutional support facilitated the exploration of more ambitious programs. Educators frequently have access to training sessions, digital resources, and IT personnel capable of resolving issues. This assistance motivated them to explore other platforms and create interactive online lessons. Conversely, rural educators often functioned without

these resources, necessitating a greater dependence on their inventiveness and ingenuity. In certain instances, they integrated local culture with digital instruction—such as requiring students to record brief storytelling exercises on their phones and share them with classmates. The absence of formal support did not constrain their agency but compelled them to cultivate unique approaches grounded in their communities.

The teachers' reflective notebooks distinctly demonstrate that instructors' agency is contextually grounded. Infrastructure, institutional support, and local resources either expanded or restricted the scope for agency. In remote regions, educators reported unreliable electricity, inadequate facilities, and deficient literacy foundations among students. These circumstances compelled them to adapt, utilising offline films, locally produced images, or communal traditions. Their agency was manifested in the resolve to maintain the significance of learning despite systemic impediments. Enhanced infrastructure in urban schools facilitated instructors' use of laboratories, online dictionaries, and applications. Institutional support was also significant. Certain educators described how their administrators facilitated the acquisition of resources, including multilingual dictionaries and allocated computer lab time. These sorts of support bolstered teachers' confidence to engage in digital learning experimentation. Local resources also influenced the nature of agency. Educators in tourism regions, for example, connected English instruction to the practical requirements of the hospitality industry, whilst instructors near international borders utilised the presence of foreign tourists as legitimate motivations for learning English.

*RQ3: How do projective, practical-evaluative, and iterative dimensions of teacher agency manifest in digital tool use?*

The three elements of teacher agency are vividly evident when examining the data using Priestley et al.'s ecological model. Agency in all three dimensions was dynamic and negotiated rather than static. Educators utilised their experiences, addressed the current dynamics of their classes, and envisioned the potential outcomes of English education. Digital technologies were not objectives in isolation, but components of a broader endeavour by educators to foster significant learning under diverse conditions. Table 2 below illustrates the expression of agency through the utilisation of digital instruments.

**Table 2.** Manifestations of the trial dimensions of agency in digital tool for EFL

Teacher agency dimensions	Manifestation in the use of digital tool in EFL classes
Iterative	Past experiences strongly shaped present practices. Several teachers reflected that older, teacher-centered methods had not worked, which pushed them to try videos, games, or collaborative projects. This dimension of agency shows how reflection on previous struggles guided teachers toward more innovative approaches.
Practical-Evaluative	Teachers constantly weighed what was possible in their setting. Urban teachers drew from a wider digital toolkit, while rural teachers often fell back on low-tech adaptations, but both made deliberate judgments about what would work best for their students. Some

Teacher agency dimensions	Manifestation in the use of digital tool in EFL classes
Projective	<p data-bbox="412 218 1070 271">even negotiated with school leaders to secure extra tools or resources, showing how agency is relational as well as individual.</p> <p data-bbox="412 276 1070 409">Teachers held strong hopes that students would become more confident, motivated, and future-ready. Rural teachers often emphasized English as a way to broaden life chances, while urban teachers highlighted digital literacy as an essential part of modern learning.</p>

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The results indicate that teachers' agency manifested in their forward-looking perspectives, responses to current circumstances, and reflections on past experiences [18]. In the context of projective dimension, educators from both urban and rural settings articulated their aspirations for the long-term integration of technology. Urban educators frequently articulated intentions to adopt blended learning models, whereas rural educators envisioned integrating English instruction with local traditions through culturally pertinent digital methodologies. In the practical-evaluative dimension, educators consistently assessed their alternatives. Urban educators contemplated their pupils' capacity to manage intricate online assignments, whereas rural educators assessed the feasibility of activities given their constrained resources. The iterative aspect was clearly manifested in educators' views on their teaching experiences. A multitude of individuals derived insights from the epidemic, employing those lessons to enhance contemporary digital activities. In both rural and urban settings, educators' decisions were influenced by a combination of prior experiences, current circumstances, and future aspirations.

The results of this study indicate that Indonesian EFL teachers do not merely adhere to policy instructions regarding digital instruction. Rather, they are proactively influencing the integration of technology into their classrooms. Through the perspective of the Ecological Model of Teacher Agency [3], agency is depicted as fluid and context-dependent. Teachers' decisions were consistently shaped by their surrounding situations, prior experiences, and future objectives. For urban educators, institutional frame-

works such as enhanced internet access, formal platforms, and ICT support significantly influenced their decisions. Conversely, rural educators frequently operated with much limited resources, compelling them to be more innovative and to utilise methods that were straightforward, accessible, and often connected to the local community. This study has examined teachers' capacity to make significant decisions within the contexts they encountered.

These findings underscore the enduring significance of the TPACK framework [9]. Technology integration was not solely concerned with teachers' ability to manage the technical aspects of digital tools. It pertained to their integration of technological, pedagogical, and subject matter expertise to address the requirements of their pupils [13]. Urban educators predominantly utilised structured systems such as Google Classroom, but rural educators frequently developed classes with WhatsApp or offline resources. Both methodologies demonstrate that the utilisation of technology in education is intrinsically linked to professional discernment. The critical factor was not the tool's sophistication, but its effectiveness in facilitating learning within that specific classroom [19].

The research also highlights significant implications for professional development. Urban school educators' training must extend beyond technical skills to promote contemplation on the educational functions of digital platforms. Professional development for rural educators should enhance their existing methods, acknowledging the significance of their adaptation strategies and demonstrating how these might be fortified rather than supplanted. Professional development programs ought to cultivate reflective practices, prompting educators to connect insights gained from previous experiences with their current actions and future aspirations [21]. The research enhances theoretical insights into teacher agency by demonstrating the continuous interplay of its projective, practical, and iterative elements. Educators utilised recollections of the epidemic to inform present decisions, modified their methodologies to align with classroom realities, and articulated aspirations for future digital education. The interweaving of past, present, and future illustrates that agency is not a singular act but a continuous process [4]. Consequently, fostering teacher agency cannot be accomplished via a singular training or policy; it necessitates a sustained commitment to establishing an environment where educators can persistently reflect, adapt, and innovate.

## 5 Conclusion

This study aimed to investigate how Indonesian EFL teachers in rural and urban schools exercise agency in utilising digital resources. The data unequivocally demonstrate that teachers, irrespective of circumstance, are not mere passive recipients of technology. They actively influence the integration of digital tools in their classrooms, utilising their professional judgement, expertise, and available resources. Although rural and urban educators faced analogous issues, such as diverse student capacities, minimal involvement, and difficulties in maintaining participation, their approaches differed significantly. Urban educators, bolstered by enhanced infrastructure and institutional support, relied on more organised frameworks. Conversely, rural educators frequently utilised

ingenuity and indigenous knowledge, modifying basic instruments to produce significant learning experiences. This study, examined through the frameworks of the Ecological Model of Teacher Agency and TPACK, emphasises that agency is contingent upon context and influenced by the interaction of teachers' aspirations, their working conditions, and their reflections throughout time. It demonstrates that digital instruction transcends mere tool availability; it involves the integration of pedagogy, material, and technology to address students' needs.

The ramifications of these discoveries are substantial. Policy necessitates a departure from standardised methodologies in digital learning. Policies should acknowledge and bolster the varied digital ecosystems present in Indonesia. Professional development should not merely instruct instructors in the use of certain tools but should also promote reflective practice and enable educators to adapt technology in contextually relevant ways. In urban schools, this may involve assisting educators in critically assessing the utilisation of institutional platforms; in rural schools, it may entail recognising and enhancing effective adaptive practices that are already in place. This study enhances the comprehension of teacher agency in digital education. Agency encompasses not only immediate decisions within the classroom but also the manner in which educators integrate past experiences with present methodologies and future objectives. Policymakers and teacher educators must recognise that fostering teacher agency necessitates sustained investment, confidence in teachers' professional abilities, and a dedication to establishing environments that enable teachers to reflect, adapt, and innovate according to their specific contexts.

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