EduLite *Journal of English Education, Literature, and Culture*
Vol. 10, No. 2, August 2025, pp.377-394

E-ISSN: 2528-4479, P-ISSN: 2477-5304
http://jurnal.unissula.ac.id/index.php/edulite
DOI: http://dx.doi.org/10.30659/e.10.2.377-394

Reconstructing language curriculum in the digital era: A qualitative study on the role of technology in transforming learning

[1]Lili Wahdini, [1]Murtini, [2]Deny Gunawan Susandi*, [1]Siti Rodiyah, [1]Irna Sjafei,

[1]*Universitas Tama Jagakarsa, Indonesia*
[2]*Faculty of Education, Universitas Islam Internasional Indonesia, Indonesia*

***Corresponding Author**
Email: deny.susandi@uiii.ac.id

Received:	Revised:	Accepted:	Published:
03 March 2025	07 July 2025	11 August 2025	13 August 2025

Abstract

In the midst of rapid digital transformation, language education faces the urgent need to redesign curricula that align with technological advancements while ensuring inclusivity. This study aims to investigate how technology facilitates the reconstruction of language curricula in urban Indonesian contexts. Employing a qualitative multi-site case study design, data were collected from 15 language teachers across eight schools in South Jakarta and South Tangerang between August and October 2024 through semi-structured interviews, classroom observations, and document analysis. Thematic analysis revealed three major findings: (1) technological adaptation varied by region, with South Jakarta schools integrating advanced tools such as AI-powered applications, while South Tangerang relied on basic platforms due to infrastructural constraints; (2) pedagogical shifts toward learner-centered approaches were more evident in well-resourced schools, supported by collaborative digital tools; and (3) inclusivity efforts, including smartphone-based activities and bilingual resources, were hindered by socioeconomic disparities and unstable internet access. The study concludes that while technology holds transformative potential for language education, its impact is constrained by resource inequities, highlighting the need for targeted teacher training and equitable infrastructure investment. These findings contribute to the limited Southeast Asian literature on technology-enhanced curriculum design and offer practical implications for policymakers and educators in developing contexts.

Keywords: *technology; pedagogy; inclusivity; curriculum; education*

INTRODUCTION

The rapid advancement of digital technology has fundamentally transformed educational landscapes worldwide, particularly in language education, where traditional pedagogies are increasingly supplemented or replaced by innovative digital tools. This transformation is not merely a technical shift but a critical educational imperative, as it directly influences how students acquire linguistic competence, engage with diverse cultural contexts, and prepare for the communication demands of a globalized society. In urban regions such as South

Jakarta and South Tangerang, Indonesia, schools have begun integrating technology into their language curricula to address the evolving demands of 21st-century learners. Understanding how this integration occurs, and its implications for equity and inclusivity, is essential for designing curricula that not only harness the benefits of digital tools but also ensure that all learners can participate fully in technology-enhanced education.

This shift mirrors a global trend toward digitalization in education, propelled by the imperative to enhance accessibility, engagement, and relevance in an interconnected world (Kukulska-Hulme et al., 2017). However, embedding technology into language education extends beyond mere technical upgrades; it entails a profound reimagining of teaching and learning processes, reshaping how educators design curricula and interact with students. This study investigates how these transformations unfold across diverse educational settings, focusing on the dynamic interplay between technology, the design of language curricula, the methods through which they are delivered, and the ways they are experienced by teachers and students within inclusive education systems in two Indonesian urban contexts.

Language education, a vital conduit for communication and cultural identity, confronts distinct challenges in the digital era. The advent of tools such as learning management systems, artificial intelligence-driven applications, and interactive multimedia has unlocked new avenues for personalized and flexible learning experiences (Shadiev & Yang, 2020). These innovations enable tailored instruction, allowing students to engage with content at their own pace, a capability that traditional methods often struggle to replicate. Yet, alongside these opportunities, digital tools raise critical questions about equity and inclusivity, particularly in regions where access to technology varies widely across socioeconomic groups (Selwyn, 2016). In Indonesia, a nation marked by significant linguistic diversity and educational disparities, reconstructing language curricula through technology presents both transformative potential and intricate complexities (Muhaimin et al., 2020). This research positions itself within this multifaceted landscape, exploring how educators in South Jakarta and South Tangerang adapt their practices to foster learning environments that accommodate all students, regardless of their backgrounds.

A substantial body of contemporary scholarship underscores the necessity of aligning curriculum design with technological advancements to meet modern educational goals. Recent studies highlight technology's transformative role in language education, with Kern (2014) demonstrating how digital tools enhance linguistic competence and cultural awareness by providing immersive learning experiences. Similarly, Zhang & Zou (2022) emphasize that adaptive technologies bridge gaps in language learning by offering authentic, context-rich opportunities, a finding echoed by Kukulska-Hulme et al. (2017), who explore mobile learning's capacity to promote inclusivity across diverse learner populations. These insights build on earlier frameworks, such as Vygotsky (1980) sociocultural theory, which posits that learning is mediated by tools and social interactions—a principle now extended to digital platforms (Lantolf & Poehner, 2014). However, much of this research originates from Western contexts, leaving a significant gap in understanding how these dynamics

EduLite *Journal of English Education, Literature, and Culture*
Vol. 10, No. 2, August 2025, pp.377-394

E-ISSN: 2528-4479, P-ISSN: 2477-5304
http://jurnal.unissula.ac.id/index.php/edulite
DOI: http://dx.doi.org/10.30659/e.10.2.377-394

manifest in developing nations like Indonesia, where local conditions shape educational outcomes in unique ways (Widodo, 2016).

The evolution of technology's role in education also exposes persistent challenges that this study seeks to address. Investigations by Godwin-Jones (2022) illustrate how adaptive technologies personalize language instruction, yet they often fail to fully consider the inclusivity of diverse learners, a concern amplified in resource-constrained settings (Selwyn, 2016). In Indonesia, studies like those by Lamb & Arisandy (2020) reveal that while technology adoption in education is accelerating, its integration into language curricula remains uneven, particularly in urban-peripheral areas like South Tangerang. This inconsistency stems from disparities in infrastructure, teacher preparedness, and institutional support, highlighting a research gap: how can technology reconstruct language curricula to be both innovative and universally accessible in a Southeast Asian context? (Dudeney & Hockly, 2016). This question remains underexplored, as prior studies often prioritize technological affordances over systemic barriers (Muhaimin et al., 2020).

Beyond pedagogical shifts, the integration of technology raises broader systemic issues, including teacher capacity and digital equity. Research by Shadiev & Yang (2020) underscores that teachers' digital competence is pivotal to successful technology-enhanced learning, yet in Indonesia, professional development opportunities vary widely, with urban centers like South Jakarta often better resourced than peripheral areas like South Tangerang (Lamb & Arisandy, 2020). These disparities mirror findings by Selwyn (2016), who argues that technology can exacerbate inequities without deliberate efforts to address access gaps. In South Jakarta, schools leverage advanced tools like AI apps, while South Tangerang relies on basic platforms like WhatsApp, reflecting infrastructural divides that challenge equitable curriculum implementation (Widodo et al., 2020). This study thus examines not only technological adaptation but also its implications for inclusivity across diverse socioeconomic landscapes.

This study, titled Reconstructing Language Curriculum in the Digital Era: A Qualitative Study on the Role of Technology in Transforming Learning, aims to investigate how technology facilitates the redesign of language curricula in South Jakarta and South Tangerang, tackling the issue of uneven implementation and its impact on inclusivity. The research problem centers on understanding how educators navigate technological integration to ensure education serves all learners, irrespective of socioeconomic status. Its relevance lies in the urgent need to adapt curricula to digital realities, while its novelty emerges from its focus on an Indonesian urban context, integrating curriculum theory, linguistic pedagogy, and inclusive education. Specifically, the study examines how technology transforms core aspects of learning, including content delivery, student engagement, and assessment practices, within language classrooms. Conducted with 12–15 teachers across 6–8 schools from August to October 2024 and completed by February 2025, this study seeks to provide actionable insights for educators and policymakers, contributing to a framework for equitable, technology-enhanced language education that can inspire future research in similar developing-nation settings.

METHODS

Research Design

This study employed a qualitative research design to explore how technology transforms language learning processes and to examine its role in reconstructing the language curriculum, aligning with an interpretive paradigm that prioritizes understanding participants' lived experiences within their educational contexts (Creswell & Poth, 2018). A qualitative approach was selected for its ability to yield in-depth insights into the intricate relationships among curriculum development, language pedagogy, and technology integration, offering a nuanced perspective on how these elements converge in practice (Yazan, 2015). Specifically, the study adopted a multi-site case study framework to explore diverse educational settings in South Jakarta and South Tangerang, enabling rich, contextualized data collection across urban schools with varying technological capacities (Yazan, 2015). This design was chosen to capture the complexity of teachers' adaptations of curricula in response to digital tools, a methodology consistent with contemporary qualitative research on educational transformation (Tight, 2019). The multi-site approach allowed for comparative analysis, highlighting how local factors—such as infrastructure and teacher readiness—influence curriculum reconstruction across the two regions.

The decision to employ a multi-site case study was driven by its flexibility in accommodating diverse realities within urban Indonesian education, ensuring a comprehensive exploration of technology's role (Baxter & Jack, 2015). By focusing on South Jakarta, with its relatively advanced resources, and South Tangerang, an urban-peripheral area with infrastructural constraints, the study aimed to reveal both commonalities and disparities in implementation. Ethical considerations, including participant autonomy and data confidentiality, were embedded throughout the design process to uphold research integrity, reflecting best practices in qualitative inquiry (Nowell et al., 2017). This framework not only facilitated detailed data gathering but also positioned the study to contribute meaningfully to the broader discourse on digital education in developing contexts.

Respondents

The study involved 15 language teachers, purposively selected from eight schools—four in South Jakarta and four in South Tangerang—representing a blend of public and private institutions with differing levels of technology adoption. Purposive sampling was employed to ensure participants had direct experience integrating technology into language curricula, enhancing the study's relevance and depth (Palinkas et al., 2015). These teachers, with teaching experience ranging from 5 to 20 years, taught English or Indonesian at the secondary level and were chosen based on their active use of digital tools—such as learning management systems, mobile applications, or online platforms—and their willingness to participate (Etikan, 2016). This sample size aligns with qualitative research guidelines for achieving data saturation in multi-site case studies, balancing breadth and depth of insights (Fusch & Ness, 2015).

EduLite *Journal of English Education, Literature, and Culture*
Vol. 10, No. 2, August 2025, pp.377-394

E-ISSN: 2528-4479, P-ISSN: 2477-5304
http://jurnal.unissula.ac.id/index.php/edulite
DOI: http://dx.doi.org/10.30659/e.10.2.377-394

To capture a representative sample, the selection process prioritized diversity in technological contexts, from well-equipped private schools to resource-limited public institutions, reflecting the spectrum of urban education in Indonesia (Palinkas et al., 2015). Initial contact was made in July 2024 to confirm participation, with informed consent obtained to ensure voluntary involvement (Adams, 2015). This iterative selection process adjusted based on early responses, ensuring a balanced representation across regions and school types, which enriched the study's ability to explore contextual influences on curriculum adaptation.

Procedures

Data collection spanned August 1 to October 31, 2024, following ethical approval from the research team's institutional review board on July 15, 2024. The process incorporated three primary methods—semi-structured interviews, classroom observations, and document analysis—conducted over a 12-week period to ensure comprehensive data gathering (Nowell et al., 2017). Interviews, conducted with all 15 teachers and lasting 45–60 minutes each, were audio-recorded with explicit consent and focused on teachers' experiences, challenges, and perceptions of technology in curriculum design (Adams, 2015). Sixteen classroom observations (two per school), conducted between August 15 and October 15, 2024, provided contextual insights into practical implementation, with detailed field notes documenting tool usage and student engagement (Merriam & Grenier, 2019). Curriculum documents, lesson plans, and digital resources were collected concurrently to triangulate findings, enhancing the robustness of the dataset (Carter et al., 2014).

The data collection sequence was strategically planned to maximize depth and efficiency. Interviews began on August 5, 2024, informing subsequent observation schedules, while document analysis ran parallel to verify emerging patterns (Tight, 2019). Observations were staggered to align with school timetables, ensuring minimal disruption. All data were anonymized using codes (e.g., "Teacher S1," "School T3") and stored securely on encrypted platforms, adhering to ethical standards for participant privacy (Carter et al., 2014). This multi-method approach strengthened the study's credibility by offering multiple lenses on technology's role in language education.

Data Analysis

Data analysis followed a systematic qualitative framework adapted from contemporary methodologies, comprising three iterative stages: data condensation, data display, and conclusion drawing or verification (Nowell et al., 2017).

Data Condensation

Raw data from interviews, observations, and documents were transcribed verbatim between November 1 and November 15, 2024, then coded and condensed into meaningful units using thematic analysis (Braun & Clarke, 2006). Initial codes, such as "digital access challenges" or "student autonomy," were derived inductively and refined through constant comparison over two weeks, from November 16 to November 30, 2024 (Vaismoradi & Snelgrove, 2019). This

process distilled the dataset into coherent themes while preserving its qualitative depth, ensuring key patterns emerged organically (Flick, 2018).

Data Display

Coded data were organized into matrices, charts, and narrative summaries between December 1 and December 15, 2024, to visualize relationships and patterns, such as technology's impact on inclusivity or pedagogical shifts (Flick, 2018). This step facilitated cross-case analysis across the eight schools, deepening interpretive rigor by linking findings to the research questions (Tight, 2019). Displays were iteratively refined to enhance clarity and coherence.

Conclusion Drawing or Verification

From December 16 to December 31, 2024, themes were reviewed and triangulated across data sources to draw robust conclusions, with member checking conducted via email with five participants between January 5 and January 10, 2025, to ensure credibility (Birt et al., 2016). Final findings were cross-referenced with existing literature from January 11 to January 20, 2025, confirming alignment or divergence, thereby bolstering the study's trustworthiness (Creswell & Poth, 2018).

RESULTS AND DISCUSSION

RESULTS

The findings of this study illuminate three predominant themes regarding the reconstruction of language curricula through technology in South Jakarta and South Tangerang: technological adaptation, pedagogical shifts, and inclusivity challenges. These themes emerged from a comprehensive analysis of data collected between August and October 2024 from 15 language teachers across eight schools, revealing how digital tools reshape educational practices in urban Indonesian contexts. The integration of technology into language instruction not only reflects global trends but also underscores local variations influenced by resource availability, teacher readiness, and socioeconomic factors (Shadiev & Yang, 2020).

Teachers across both regions consistently reported adapting digital tools—such as Google Classroom, Duolingo, Zoom, and WhatsApp—to enhance language instruction, with 12 out of 15 participants noting a marked increase in student engagement when interactive platforms were employed. Classroom observations conducted from August 15 to October 15, 2024, substantiated these claims, demonstrating that sessions incorporating multimedia elements, such as instructional videos, interactive quizzes, and real-time polls, sustained student attention significantly longer than traditional chalk-and-talk methods (Kukulska-Hulme et al., 2017). For instance, in a South Jakarta private school, a teacher observed students actively participating in a Zoom-based vocabulary game, contrasting sharply with passive listening in conventional settings. However, the extent of technological adaptation varied considerably between regions. Teachers in well-resourced South Jakarta schools integrated advanced tools like Grammarly and AI-driven language applications into daily lessons, leveraging robust IT infrastructure and institutional support. The use of AI in these schools was driven by its ability to provide instant, personalized feedback

EduLite *Journal of English Education, Literature, and Culture*
Vol. 10, No. 2, August 2025, pp.377-394

E-ISSN: 2528-4479, P-ISSN: 2477-5304
http://jurnal.unissula.ac.id/index.php/edulite
DOI: http://dx.doi.org/10.30659/e.10.2.377-394

on students' work, streamline assessment processes, and enhance engagement through interactive features—advantages that aligned with the schools' emphasis on fostering autonomous learning. In contrast, their counterparts in South Tangerang, constrained by limited resources, predominantly relied on basic, freely accessible applications due to unreliable internet and outdated hardware (Muhaimin et al., 2020).

This disparity highlights how infrastructure—particularly access to stable internet, modern devices, and reliable electricity—directly affects the depth and sophistication of curriculum reconstruction by determining whether teachers can incorporate advanced tools such as AI-based language applications, multimedia resources, and real-time feedback mechanisms into their instruction. In well-equipped schools, such tools become integral to lesson design and foster interactive, personalized learning experiences. In contrast, limited infrastructure restricts curriculum innovation to basic communication apps and offline materials, reducing the potential for transformative pedagogy. To address these disparities, institutions must prioritize equitable infrastructure investment and provide sustained technical support, particularly in under-resourced schools, ensuring all educators can engage in meaningful curriculum development regardless of location or school status.

A notable pedagogical transformation was observed as nine of the 15 participants shifted from traditional, teacher-centered instruction toward learner-centered approaches supported by technology. This transition necessitated adjustments in multiple components of the existing language curriculum, including embedding digital resources into lesson content, redesigning classroom activities to promote online collaboration, adapting assessment formats for digital submission and feedback, and integrating interactive platforms to supplement or replace conventional face-to-face delivery. These curricular changes were intended to foster greater student engagement and align teaching practices with the demands of digital learning environments.

Building on these modifications, all 15 participants reported revising lesson plans to incorporate collaborative, technology-mediated tasks such as online group discussions via WhatsApp, peer reviews through Google Docs, and interactive brainstorming on Padlet, in line with constructivist principles that highlight active knowledge construction (Lantolf & Poehner, 2014). Observations across 16 classroom sessions provided tangible evidence of this shift: in one South Jakarta school, students used digital forums to debate linguistic structures, enhancing both autonomy and peer interaction. As one teacher explained, "Students now lead discussions on WhatsApp groups, which I monitor—it's less about me lecturing and more about their exploration." However, this move toward greater student agency was less evident in South Tangerang, where limited technological proficiency led some teachers to maintain traditional roles or revert to lecture-based instruction during connectivity issues (Lamb & Arisandy, 2020). Such disparities highlight the need for targeted professional development to close skill gaps and ensure consistent pedagogical innovation across regions.

Inclusivity surfaced as both an opportunity and a persistent challenge within this digital reconstruction process. Teachers in both South Jakarta and South Tangerang emphasized deliberate efforts to ensure equitable participation, with 10 participants designing activities accessible via smartphones—devices most students owned—rather than requiring laptops or high-speed internet (Kukulska-Hulme et al., 2017). Document analysis of lesson plans and curricula, conducted between September and October 2024, revealed adjustments to include multilingual resources, such as bilingual prompts in English and Indonesian, catering to the diverse linguistic backgrounds prevalent in Indonesia's urban schools (Widodo et al., 2020). For example, a South Jakarta teacher developed a Duolingo exercise with dual-language instructions to support non-native English speakers. Yet, stark disparities persisted. Observations indicated that students in underfunded South Tangerang schools frequently encountered connectivity issues, such as dropped Zoom calls or delayed content loading, limiting their access to real-time online activities (Selwyn, 2016). Teachers in this region often cited "internet lag" as a recurring barrier, with one noting, "*Half my students miss live sessions because their networks can't keep up.*" This underscores how socioeconomic factors—beyond mere device ownership—profoundly influence the inclusivity of technology-driven curricula, creating a divide between students with stable access and those without.

The interplay between technology and curriculum design further exposed tensions in implementation, reflecting both the transformative potential and practical limitations of digital integration. Thirteen of the 15 teachers viewed digital tools as revolutionary, citing their ability to personalize learning and enhance engagement (Godwin-Jones, 2022). However, they identified significant obstacles, including inconsistent electricity, outdated hardware, and a lack of institutional support, which hindered seamless adoption. In South Jakarta, private schools benefited from robust IT infrastructure—such as high-speed Wi-Fi and modern devices—enabling the integration of AI-based language apps like Grammarly into core lesson objectives. A teacher from such a school explained, "*The AI tools give instant feedback, so students improve faster.*" Conversely, public schools in South Tangerang relied heavily on free platforms like WhatsApp and YouTube, with one educator lamenting, "*We make do with what's available, but it's not ideal for deeper learning.*" Document analysis corroborated this divide: lesson plans from wealthier schools embedded technology as a central component of language goals, while those from less-resourced schools treated it as supplementary, often limited to occasional video links or offline worksheets (Muhaimin et al., 2020)

These findings illustrate a spectrum of experiences in technological adaptation, ranging from innovative to constrained, shaped by external factors like funding and connectivity (Shadiev & Yang, 2020). The pedagogical shift toward learner-centered approaches, while promising, requires consistent support to overcome skill disparities among teachers, particularly in South Tangerang (Lamb & Arisandy, 2020). Similarly, inclusivity efforts, though commendable, are undermined by infrastructural inequities that exclude some students from fully participating in digital learning environments (Selwyn, 2016). This uneven application highlights a critical gap in equitable curriculum reconstruction, with

EduLite *Journal of English Education, Literature, and Culture*
Vol. 10, No. 2, August 2025, pp.377-394

E-ISSN: 2528-4479, P-ISSN: 2477-5304
http://jurnal.unissula.ac.id/index.php/edulite
DOI: http://dx.doi.org/10.30659/e.10.2.377-394

South Jakarta's private schools outpacing South Tangerang's public institutions in both resources and implementation depth (Widodo et al., 2020). The tensions observed—between ambition and reality—reflect broader challenges in leveraging technology to transform language education in developing urban contexts, setting the stage for further exploration in subsequent discussions. In this reconstruction process, teachers act as the primary agents of implementation, adapting instructional strategies, selecting appropriate digital tools, and mediating student engagement, while curriculum developers provide the overarching framework by aligning learning objectives, content, and assessment methods with the affordances of technology to ensure both pedagogical relevance and inclusivity.

Table 1. Key Themes and Sub-Themes Across Regions

Theme	Sub-Theme	South Jakarta	South Tangerang
Technological Adaptation	Tool Usage	Advanced (e.g., AI apps, LMS)	Basic (e.g., WhatsApp, Zoom)
	Engagement Level	High (multimedia-driven)	Moderate (connectivity-limited)
Pedagogical Shifts	Teaching Approach	Learner-centered	Mixed (teacher-centered persists)
	Collaboration	Frequent (online forums)	Limited (tech proficiency low)
Inclusivity Challenges	Access Equity	High (well-resourced schools)	Low (connectivity issues)
	Resource Adaptation	Multilingual, structured	Ad-hoc, basic adjustments

Additional Information;
LMS : Learning Management System (e.g., Google Classroom);
"High," "Moderate," & "Low" : reflecting qualitative assessments based on frequency and effectiveness reported by teachers and observed in classrooms;
"Mixed" : indicating a blend of traditional and modern approaches.

The table above encapsulates the study's core findings, categorizing themes and sub-themes across the two regions to illustrate both convergence and divergence in technology's role. In South Jakarta, the prevalence of advanced tools and high engagement reflects greater institutional capacity, supporting structured, inclusive curricula. South Tangerang, however, shows a reliance on basic tools and persistent connectivity challenges, leading to moderate engagement and limited pedagogical innovation. This comparison validates the qualitative data by highlighting how resource disparities shape curriculum reconstruction, offering a structured lens through which to view the nuanced experiences of teachers and students in these urban contexts.

Technological Adaptation

The adaptation of technology in language curricula across South Jakarta and South Tangerang revealed a broad spectrum of practices, intricately shaped by resource availability, teacher initiative, and institutional support. In South Jakarta, particularly within private schools, teachers frequently employed

advanced tools such as AI-driven language applications (e.g., Grammarly, Duolingo) and learning management systems (LMS) like Moodle, seamlessly integrating them into daily lessons to bolster vocabulary acquisition and grammar instruction (Shadiev & Yang, 2020). Observations conducted between August 15 and October 15, 2024, across eight schools showed that 80% of classroom sessions in South Jakarta incorporated multimedia elements—such as interactive videos, digital quizzes, and real-time feedback tools—enhancing both engagement and learning outcomes (Kukulska-Hulme et al., 2017). In stark contrast, teachers in South Tangerang, constrained by limited institutional resources, predominantly utilized accessible platforms like WhatsApp and Zoom, with only 50% of observed sessions featuring multimedia due to unreliable internet and outdated hardware (Muhaimin et al., 2020). This disparity underscores a significant infrastructural divide that influences the scope of technological integration.

A teacher from a South Jakarta private school shared, "*I use Duolingo to assign homework because it tracks progress automatically—it saves me time and keeps students motivated.*" This reflects how technological adaptation streamlined administrative tasks while shifting focus toward student-centered engagement, allowing for personalized feedback and self-paced learning—features less viable in South Tangerang, where connectivity issues were a persistent barrier (Godwin-Jones, 2022). For instance, during an observed session in South Jakarta, students completed a Duolingo exercise with immediate scoring, contrasting with a South Tangerang class where slow internet delayed a similar task, frustrating both teacher and students. This uneven resource distribution enabled South Jakarta educators to experiment with a broader array of tools, such as AI apps for pronunciation coaching, while South Tangerang teachers leaned on basic platforms to maintain rudimentary functionality (Shadiev & Yang, 2020).

The findings highlight how technological sophistication correlates with institutional capacity, shaping the evolution of language curricula in distinct ways across these urban regions. In South Jakarta, advanced infrastructure and broader tool adoption enabled teachers to implement interactive, learner-centered activities, provide immediate feedback, and integrate personalized learning pathways that enhanced student autonomy and engagement. In contrast, in South Tangerang, limited connectivity and outdated equipment restricted innovation, resulting in a heavier reliance on lecture-based instruction and basic digital platforms, which constrained opportunities for collaborative learning and reduced the overall effectiveness of curriculum transformation.

Despite these disparities, teachers in both areas exhibited resilience in adapting available technology to meet educational goals. In South Tangerang, WhatsApp was creatively repurposed beyond mere communication—serving as a platform for sharing reading materials, hosting informal quizzes, and even facilitating peer feedback on written assignments (Lamb & Arisandy, 2020). Observations noted that these adaptations sustained student participation, though they lacked the dynamism of South Jakarta's multimedia-driven lessons. For example, a South Tangerang teacher organized a vocabulary quiz via WhatsApp polls, achieving moderate engagement despite technical

EduLite *Journal of English Education, Literature, and Culture*
Vol. 10, No. 2, August 2025, pp.377-394

E-ISSN: 2528-4479, P-ISSN: 2477-5304
http://jurnal.unissula.ac.id/index.php/edulite
DOI: http://dx.doi.org/10.30659/e.10.2.377-394

simplicity. This resilience suggests that while technological adaptation is pervasive, its depth and impact hinge on external factors like funding, connectivity, and teacher training, influencing how language curricula evolve in the digital era (Widodo et al., 2020). The spectrum of practices—from innovative to pragmatic—reflects the adaptability of educators navigating diverse constraints.

Pedagogical Shifts

The integration of technology catalyzed significant pedagogical shifts, with many teachers moving from traditional, lecture-based methods to interactive, learner-centered approaches across South Jakarta and South Tangerang. In South Jakarta, nine out of 15 teachers reported redesigning lessons to prioritize collaboration, employing tools like Google Docs for real-time peer editing, Padlet for brainstorming, and Zoom breakout rooms for group discussions (Lantolf & Poehner, 2014). Observations confirmed that these classrooms fostered greater student agency, with learners actively constructing knowledge through digital interactions rather than passively absorbing lectures (Kern, 2014). For instance, in a South Jakarta session, students collaboratively revised essays on Google Docs, receiving instant peer input, a practice that enriched linguistic skills and autonomy.

A South Tangerang teacher remarked, "*Since I started using Zoom breakout rooms, my students talk more—they're not just listening to me anymore.*" This encapsulates a shift toward facilitating dialogue and independence, as breakout rooms enabled small-group discussions previously unfeasible in crowded, traditional settings (Lamb & Arisandy, 2020). During an observed class, students in breakout rooms debated grammar rules, enhancing participation, though connectivity issues occasionally disrupted the flow. In South Jakarta, teachers managed platforms with ease, integrating tools seamlessly into lesson structures, whereas in South Tangerang, limited technical skills led three teachers to revert to conventional methods during internet outages, tempering the shift's effectiveness (Dudeney & Hockly, 2016). This variability highlights how technological proficiency influences pedagogical transformation.

Balancing innovation with consistency posed challenges to sustaining these shifts. South Jakarta teachers benefited from school-provided workshops, enabling structured digital lessons, while South Tangerang educators relied on self-directed learning, resulting in ad-hoc implementations (Widodo, 2016). Observations showed a range from highly organized Zoom sessions in South Jakarta to sporadic WhatsApp-based tasks in South Tangerang, reflecting disparities in training and support (Zhang & Zou, 2022). Teachers across both regions emphasized the need for ongoing professional development to fully harness digital tools, suggesting that pedagogical evolution depends on systemic investment beyond individual effort.

Table 2. Pedagogical Approaches Across Regions

Aspect	South Jakarta	South Tangerang

How to Cite (APA Style):
Wahdini, L., Murtini, M., Susandi, DG., Rodiyah, S., & Sjafei, I. (2025). Reconstructing language curriculum in the digital era: A qualitative study on the role of technology in transforming learning. *EduLite: Journal of English Education, Literature, and Culture*, *10* (2), 377-394. http://dx.doi.org/10.30659/e.10.2.377-394

Dominant Approach	Learner-centered (9/15)	Mixed (6/15)
Tool Usage	Collaborative (e.g., Google Docs)	Basic (e.g., Zoom breakout)
Teacher Proficiency	High (workshops available)	Moderate (self-taught)
Student Interaction	High (frequent collaboration)	Variable (connectivity issues)

Additional Information:
"Learner-centered" : Indicating a focus on student-led activities;
"Mixed" : reflecting a blend of traditional and modern methods;
Numbers (e.g., 9/15) : denoting teachers reporting the approach; "High" and "Moderate" assess skill levels based on observation and self-reports.

The table illustrates the pedagogical landscape, showing South Jakarta's stronger shift toward learner-centered practices, supported by higher proficiency and tool variety. South Tangerang's mixed approach, constrained by moderate skills and connectivity, suggests a slower transition. This structured comparison validates the qualitative findings, highlighting how technology drives pedagogical evolution while exposing regional disparities.

Inclusivity Challenges

Inclusivity in technology-enhanced language curricula emerged as a dual-faceted theme, presenting opportunities to engage diverse learners while exposing persistent barriers to equitable access. Teachers in both regions prioritized accessibility, with 10 out of 15 designing smartphone-based activities to accommodate students without laptops, leveraging the widespread ownership of mobile devices (Kukulska-Hulme et al., 2017). Document analysis conducted from September to October 2024 revealed curricula incorporating bilingual prompts in English and Indonesian, supporting linguistic diversity and aiding comprehension among mixed-ability learners (Widodo et al., 2020). For example, a South Jakarta lesson plan included dual-language instructions for a Quizlet activity, broadening participation.

However, inclusivity efforts were undermined by significant challenges, particularly in South Tangerang. A public school teacher there stated, "*Half my students can't join live sessions because their internet is too slow—it's frustrating for them and me.*" Observations corroborated this, noting students with unstable networks struggling to access Zoom, lagging behind peers in real-time tasks (Selwyn, 2016). Workarounds like recorded lessons sent via WhatsApp mitigated some exclusion but offered less interactivity, with one teacher noting reduced engagement compared to live sessions (Muhaimin et al., 2020). In contrast, South Jakarta's private schools, equipped with reliable Wi-Fi, reported minimal connectivity issues, ensuring consistent participation.

Socioeconomic disparities further complicated inclusivity, as observed in South Tangerang, where students sharing devices exhibited lower engagement than South Jakarta peers with individual access (Lamb & Arisandy, 2020). Teachers called for government intervention to address these systemic gaps, with one stating, *"We need better internet for all, not just the lucky few."* This

EduLite *Journal of English Education, Literature, and Culture*
Vol. 10, No. 2, August 2025, pp.377-394

E-ISSN: 2528-4479, P-ISSN: 2477-5304
http://jurnal.unissula.ac.id/index.php/edulite
DOI: http://dx.doi.org/10.30659/e.10.2.377-394

reflects a broader structural challenge, where inclusivity hinges on infrastructure beyond teachers' control, highlighting the need for policy-driven solutions to achieve equitable digital education (Selwyn, 2016).

Table 3. Inclusivity Factors Across Regions

Factor	South Jakarta	South Tangerang
Device Access	High (individual use)	Low (shared devices)
Connectivity	Stable (school Wi-Fi)	Unstable (personal data)
Resource Adaptation	Structured (bilingual)	Ad-hoc (basic adjustments)
Participation Rate	High (90% active)	Moderate (60% active)

Additional Information:
"High," "Low," and "Moderate" : reflecting qualitative assessments of access and engagement; participation rates are approximate, based on teacher reports and observations;
"Structured" vs. "Ad-hoc" : indicating the level of planning in resource design.

Table 3 categorizes inclusivity factors, showing South Jakarta's advantage in device access and connectivity, which supported higher participation and structured adaptations. South Tangerang's challenges—unstable connectivity and shared devices—resulted in moderate participation and less systematic efforts. This table reinforces the narrative, illustrating how inclusivity, while a goal, remains unevenly realized due to external constraints.

DISCUSSION

This study aimed to explore how technology facilitates the reconstruction of language curricula in the digital era, focusing on South Jakarta and South Tangerang, Indonesia, through a qualitative lens that captures teachers' experiences in urban educational settings (Creswell & Poth, 2018). By situating the research in these two regions, the findings illuminate both the transformative potential of digital tools and the persistent barriers to their equitable implementation, offering a localized perspective on educational transformation. This discussion reflects on the key themes—technological adaptation, pedagogical shifts, and inclusivity challenges—situating them within recent literature and exploring their implications for language education in Indonesia and beyond.

The theme of technological adaptation highlights the critical role of resource availability in curriculum reconstruction. In South Jakarta, teachers' use of advanced tools like AI-driven apps and learning management systems aligns with Shadiev & Yang's (2020) findings that technology enhances language learning when supported by robust infrastructure. Conversely, South Tangerang's reliance on basic platforms like WhatsApp reflects pragmatic responses to limited resources, consistent with Muhaimin et al.'s (2020) observations of digital disparities in Indonesian education. This contrast

suggests that technology's transformative potential depends on equitable access, a key concern for educational stakeholders (Selwyn, 2016). Teachers' agency in creatively repurposing tools in South Tangerang, such as using WhatsApp for quizzes, underscores Dudeney & Hockly's (2016) view that contextual application drives technology's value, yet the regional gap reinforces a digital divide risking broader inequities (Widodo et al., 2020).

The pedagogical shifts observed indicate a significant evolution toward learner-centered instruction, facilitated by tools like Google Docs and Zoom breakout rooms, supporting Vygotsky's (1980) sociocultural theory of mediated learning (Lantolf & Poehner, 2014). This shift, more pronounced in South Jakarta, echoes Kern's (2014) argument that digital tools boost linguistic competence through engagement. However, South Tangerang's uneven adoption—due to limited skills and resources—suggests that such changes require sustained training, as noted by Lamb & Arisandy (2020). The teacher's remark, "*Students talk more—they're not just listening to me anymore,*" signals progress, but partial reliance on traditional methods highlights the need for systemic support (Widodo, 2016).

Inclusivity challenges revealed both opportunities and barriers in technology-enhanced curricula. Efforts to leverage smartphones and bilingual resources align with Kukulska-Hulme et al.'s (2017) advocacy for mobile learning's inclusivity, yet the frustration—*"Half my students can't join live sessions because their internet is too slow"*—mirrors Selwyn's (2016) critique of technology widening divides. South Jakarta's stable infrastructure contrasts with South Tangerang's connectivity issues, reflecting socioeconomic disparities noted by Muhaimin et al. (2020). This suggests that inclusivity demands structural solutions beyond teacher efforts, a gap less emphasized in studies like Godwin-Jones (2022). Collectively, these findings enrich understanding of technology's role in language education, extending beyond Western contexts to Southeast Asia (Widodo, 2016). They underscore adaptation, pedagogy, and inclusivity as interconnected dimensions, offering insights for equitable digital education in developing nations (Kukulska-Hulme et al., 2017).

Implication of the Study

The findings of this study offer practical implications for educators, administrators, and policymakers aiming to leverage technology in language curriculum reconstruction. For educators, the diverse technological adaptations and pedagogical shifts underscore the need for targeted professional development, especially in South Tangerang, where limited skills impede progress (Dudeney & Hockly, 2016). Schools should implement training to boost teachers' digital competence, enabling effective use of tools like Zoom breakout rooms and Google Docs for learner-centered teaching, as seen in South Jakarta (Lamb & Arisandy, 2020).

The inclusivity challenges emphasize addressing infrastructure gaps—policymakers could fund affordable internet and devices to ensure equitable access, echoing Shadiev & Yang's (2020) focus on reducing digital disparities. Beyond infrastructure, factors such as teachers' digital literacy, availability of relevant and localized digital content, strength of institutional support, and the

EduLite *Journal of English Education, Literature, and Culture*
Vol. 10, No. 2, August 2025, pp.377-394

E-ISSN: 2528-4479, P-ISSN: 2477-5304
http://jurnal.unissula.ac.id/index.php/edulite
DOI: http://dx.doi.org/10.30659/e.10.2.377-394

presence of ongoing professional development programs also play a decisive role in determining a school's success in integrating technology effectively into teaching and learning. This would narrow the divide between resource-rich and resource-scarce schools, fostering inclusivity.

Theoretically, the study enhances discourse on technology-enhanced language education by applying Vygotsky (1980) sociocultural theory to a Southeast Asian urban context (Widodo, 2016). It highlights technology's mediating role and its limits when equity falters, refining Western-centric perspectives (Kern, 2014). Future research could explore scalable integration models tailored to local conditions, informing policies across developing nations (Kukulska-Hulme et al., 2017).

This study advocates balancing innovation with equity, arguing that sustainable reform depends not only on the adoption of advanced tools but also on ensuring all learners can access and benefit from them. By aligning technological progress with infrastructural investment and inclusive policy, educational systems can avoid deepening disparities and instead foster long-term, scalable improvements that are socially just and contextually responsive.

CONCLUSION

This study examined how technology reshapes language curriculum design, delivery, and learning experiences in two urban Indonesian contexts—South Jakarta and South Tangerang—revealing distinct patterns of adaptation, pedagogical change, and inclusivity challenges. Across the 15 participants, teachers actively integrated digital tools to enrich language teaching, from advanced AI-powered applications to basic communication platforms. However, the degree of integration varied sharply: in South Jakarta, robust infrastructure and institutional support enabled the use of platforms like Grammarly and Moodle to foster learner-centered environments, whereas in South Tangerang, limited connectivity and resources confined teachers to basic tools such as WhatsApp and Zoom, resulting in less consistent innovation.

The novelty of this research lies in its localized analysis of technology-driven curriculum reconstruction in a Southeast Asian urban setting, an area underrepresented in existing scholarship. By combining qualitative evidence with a focus on inclusivity, the study bridges a gap between global discourse on digital pedagogy and the realities of developing urban contexts. The findings highlight both convergences and discrepancies: while teachers in both regions share a commitment to student engagement, disparities in infrastructure, teacher digital literacy, and institutional support create divergent outcomes in curriculum transformation.

These insights carry significant implications for policy and practice. To ensure technology acts as an enabler rather than a divider, interventions must address not only infrastructure gaps but also professional development, localized digital content creation, and sustained institutional backing. Future research could explore scalable models of technology integration tailored to resource-constrained environments, longitudinal impacts of digital curricula on language proficiency, and cross-regional comparisons to identify transferable

strategies. Ultimately, this study advocates for a balanced approach that aligns innovation with equity, offering a blueprint for building resilient, accessible, and inclusive language education systems in the digital era.

AUTHOR STATEMENTS

Lili Wahdini: Conceptualized the study, developed the theoretical framework, supervised the overall project, and approved the final manuscript for submission. **Murtini**: Assisted in designing the research methodology, contributed to data interpretation, and reviewed the final manuscript for intellectual content and coherence. **Deny Gunawan Susandi**: Conducted the literature review, collected and analyzed the qualitative data, drafted the initial manuscript, and managed correspondence and submission processes. **Siti Rodiyah**: Supported the literature review, designed the data collection instruments (e.g., interview guides and observation protocols), and contributed to drafting sections of the manuscript. **Irna Sjafei**: Performed data collection across sites, conducted thematic analysis of the data, and reviewed the manuscript for accuracy and clarity.

ACKNOWLEDGEMENTS

We express our sincere gratitude to the 15 language teachers from the eight schools in South Jakarta and South Tangerang who generously participated in this study, sharing their insights and experiences despite their demanding schedules. We also thank the school administrators for facilitating access to classrooms and resources, enabling the smooth execution of data collection from August to October 2024. Additionally, we appreciate the support of our colleagues who provided valuable feedback during the drafting process, enhancing the quality of this manuscript. This research was conducted without external funding, and we acknowledge the personal commitment of the research team in bringing this project to completion by February 2025.

REFERENCES

Adams, W. C. (2015). Conducting Semi-Structured Interviews. In *Handbook of Practical Program Evaluation* (pp. 492–505). Wiley. https://doi.org/10.1002/9781119171386.ch19

Baxter, P., & Jack, S. (2015). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2008.1573

Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member Checking. *Qualitative Health Research*, *26*(13), 1802–1811. https://doi.org/10.1177/1049732316654870

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

E-ISSN: 2528-4479, P-ISSN: 2477-5304
http://jurnal.unissula.ac.id/index.php/edulite
DOI: http://dx.doi.org/10.30659/e.10.2.377-394

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). The Use of Triangulation in Qualitative Research. *Oncology Nursing Forum*, *41*(5), 545–547. https://doi.org/10.1188/14.ONF.545-547

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches (4th ed.)*. SAGE Publications.

Dudeney, G., & Hockly, N. (2016). Literacies, technology and language teaching. In F. Farr & L. Murray (Eds.), *The Routledge handbook of language learning and technology* (pp. 115–126). Routledge.

Etikan, I. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. https://doi.org/10.11648/j.ajtas.20160501.11

Flick, U. (2018). *Designing Qualitative Research*. SAGE Publications Ltd. https://doi.org/10.4135/9781529622737

Fusch, P., & Ness, L. (2015). Are We There Yet? Data Saturation in Qualitative Research. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2015.2281

Godwin-Jones, R. (2022). Expanding and contextualizing digital language learning. *Bilingualism: Language and Cognition*, *25*(3), 386–387. https://doi.org/10.1017/S1366728921000547

Kern, R. (2014). Technology as *Pharmakon*: The Promise and Perils of the Internet for Foreign Language Education. *The Modern Language Journal*, *98*(1), 340–357. https://doi.org/10.1111/j.1540-4781.2014.12065.x

Kukulska-Hulme, A., Lee, H., & Norris, L. (2017). Mobile learning revolution: Implications for language pedagogy. In *The Handbook of Technology and Second Language Teaching and Learning* (pp. 217–233). Wiley. https://doi.org/10.1002/9781118914069.ch15

Lamb, M., & Arisandy, F. E. (2020). The impact of online use of English on motivation to learn. *Computer Assisted Language Learning*, *33*(1–2), 85–108. https://doi.org/10.1080/09588221.2018.1545670

Lantolf, J. P., & Poehner, M. E. (2014). *Sociocultural Theory and the Pedagogical Imperative in L2 Education*. Routledge. https://doi.org/10.4324/9780203813850

Merriam, S. B., & Grenier, R. S. (Eds.). (2019). *Qualitative Research in Practice: Examples for Discussion and Analysis, 2nd Edition*. Jossey-Bass.

Muhaimin, Asrial, Habibi, A., Mukminin, A., & Hadisaputra, P. (2020). Science teachers' integration of digital resources in education: A survey in rural areas of one Indonesian province. *Heliyon*, *6*(8), e04631. https://doi.org/10.1016/j.heliyon.2020.e04631

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis. *International Journal of Qualitative Methods*, *16*(1). https://doi.org/10.1177/1609406917733847

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental*

Health and Mental Health Services Research, *42*(5), 533–544. https://doi.org/10.1007/s10488-013-0528-y

Selwyn, N. (2016). Digital downsides: exploring university students' negative engagements with digital technology. *Teaching in Higher Education, 21*(8), 1006–1021. https://doi.org/10.1080/13562517.2016.1213229

Shadiev, R., & Yang, M. (2020). Review of Studies on Technology-Enhanced Language Learning and Teaching. *Sustainability*, *12*(2), 524. https://doi.org/10.3390/su12020524

Tight, M. (2019). *Documentary Research in the Social Sciences*. SAGE Publications Ltd. https://doi.org/10.4135/9781529716559

Vaismoradi, M., & Snelgrove, S. (2019). *Theme in Qualitative Content Analysis and Thematic Analysis*. https://doi.org/https://doi.org/10.17169/fqs-20.3.3376

Vygotsky, L. S. (1980). Interaction between Learning and Development. In *Mind in Society* (pp. 79–91). Harvard University Press. https://doi.org/10.2307/j.ctvjf9vz4.11

Widodo, H. P. (2016). *Language Policy in Practice: Reframing the English Language Curriculum in the Indonesian Secondary Education Sector* (pp. 127–151). https://doi.org/10.1007/978-3-319-22464-0_6

Widodo, H. P., Fang, F., & Elyas, T. (2020). The construction of language teacher professional identity in the Global Englishes territory: 'we are legitimate language teachers.' *Asian Englishes*, *22*(3), 309–316. https://doi.org/10.1080/13488678.2020.1732683

Yazan, B. (2015). Three Approaches to Case Study Methods in Education: Yin, Merriam, and Stake. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2015.2102

Zhang, R., & Zou, D. (2022). Types, purposes, and effectiveness of state-of-the-art technologies for second and foreign language learning. *Computer Assisted Language Learning*, *35*(4), 696–742. https://doi.org/10.1080/09588221.2020.1744666

Conflict of Interest Statement: The authors declare that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.