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English Teacher Professional Development Under Rural Digital Constraints in Indonesia: A Narrative Review

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Abstrak

Pengembangan profesional guru (*Teacher Professional Development* atau TPD) sangat penting untuk menjaga kualitas pembelajaran di era digital, terutama di lingkungan pendidikan pedesaan di mana akses terhadap teknologi masih terbatas. Penelitian ini bertujuan untuk menganalisis bagaimana keterbatasan digital memengaruhi pengembangan profesional guru bahasa Inggris sekolah dasar di pedesaan Indonesia. Meskipun penelitian sebelumnya telah mengkaji literasi digital, pelatihan guru, dan tantangan infrastruktur secara terpisah, masih sedikit penelitian yang mengintegrasikan dimensi-dimensi tersebut untuk memahami dampak kolektifnya terhadap pertumbuhan profesional guru dalam konteks pedesaan. Berbeda dengan studi sebelumnya yang meneliti faktor-faktor ini secara terpisah, tinjauan ini memberikan sintesis terintegrasi tentang bagaimana literasi digital, peran guru, kesiapan institusional, dan realitas pendidikan pedesaan berinteraksi secara bersamaan dalam membentuk pengembangan profesional guru. Penelitian ini menggunakan tinjauan pustaka naratif dengan menyintesis 15 artikel jurnal mitra bestari yang diterbitkan antara tahun 2022 dan 2026. Temuan penelitian mengungkapkan bahwa guru di pedesaan menghadapi hambatan yang terus ada seperti infrastruktur digital yang tidak memadai, terbatasnya akses ke program pelatihan, dan kesenjangan dalam kompetensi digital. Selain itu, pengembangan profesional guru semakin didukung oleh pembelajaran mandiri melalui platform digital dan komunitas belajar profesional, meskipun efektivitasnya bergantung pada dukungan institusional dan kesiapan teknologi. Hasil penelitian lebih lanjut menunjukkan bahwa pertumbuhan profesional dibentuk oleh interaksi antara literasi digital, adaptabilitas pedagogis, dan agensi guru, bukan hanya oleh keterampilan teknis semata. Penelitian ini menyimpulkan bahwa upaya mengatasi keterbatasan digital di pedesaan memerlukan strategi terintegrasi yang menggabungkan perbaikan infrastruktur, pelatihan yang responsif terhadap konteks, dan ekosistem pembelajaran profesional yang berkelanjutan untuk memastikan pengembangan guru yang setara.

Kata kunci: Pengembangan Profesional Guru; Kesenjangan Digital; Pendidikan Pedesaan; Literasi Digital; Tinjauan Naratif; Guru Bahasa Inggris Sekolah Dasar.

Abstract

Teacher professional development (TPD) is essential for maintaining instructional quality in the digital era, particularly in rural educational settings where access to technology remains limited. This study aims to analyze how digital constraints influence the professional development of rural elementary English teachers in Indonesia. Although previous studies have separately examined digital literacy, teacher training, and infrastructural challenges, limited research has integrated these dimensions to understand their collective impact on teacher professional growth in rural contexts. Unlike previous studies that examined these factors separately, this review provides an integrated synthesis of how digital literacy, teacher agency, institutional readiness, and rural educational realities interact simultaneously in shaping teacher professional development. This study employs a narrative literature review by synthesizing 15 peer-reviewed journal articles published between 2022 and 2026. The findings reveal that rural teachers face persistent barriers such as inadequate digital infrastructure, limited access to training programs, and disparities in digital competence. In addition, teacher professional development is increasingly supported by self-regulated learning through digital platforms and professional learning communities, although its effectiveness depends on institutional support and technological readiness. The results further indicate that professional growth is shaped by the interaction between digital literacy, pedagogical adaptability, and teacher agency rather than technical skills alone. This study concludes that addressing rural digital constraints requires an integrated strategy combining infrastructure improvement, context-responsive training, and sustainable professional learning ecosystems to ensure equitable teacher development.

Keywords: Teacher Professional Development; Digital Divide; Rural Education; Digital Literacy; Narrative Review; Elementary English Teachers.

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INTRODUCTION

Teacher professional development (TPD) is widely recognized as one of the most influential factors in improving educational quality, particularly in elementary education where foundational language skills are established. In the digital era, teachers are expected not only to master pedagogical knowledge but also to integrate technological competencies into classroom instruction. The rapid development of digital learning environments has transformed educational practices globally, requiring teachers to continuously adapt instructional approaches and professional competencies. Within this context, the Technological Pedagogical Content Knowledge (TPACK) framework emphasizes that effective teaching emerges from the integration of pedagogical knowledge, content mastery, and technological competence. However, the implementation of technology-based professional learning remains uneven, especially in rural educational settings where access to digital infrastructure and professional support is still limited.

The Issue of the digital divide continues to be a major challenge affecting rural education systems. Dörnyei (2009) explains that unequal access to technological resources creates disparities in teacher professional growth between urban and rural schools. Similarly, Wang et al. (2021) argue that rural teachers often experience difficulties related to internet connectivity, limited digital readiness, and restricted participation in professional learning communities. In the Indonesian context, (Fadholi et al. (2025) reveal significant disparities in teachers' digital competence across provinces, particularly in remote and underdeveloped areas. Zulaikha et al. (2025) additionally highlight that although national strategies for strengthening teachers' digital literacy have been implemented, structural and infrastructural inequalities continue to hinder equitable access to professional development opportunities. These conditions indicate that digital inequality remains a persistent barrier to achieving equal educational quality.

In addition, recent national data indicate that digital inequality remains a significant issue in Indonesian education. According to the Indonesian Internet Service Providers Association (APJII, 2024), internet penetration rates in rural areas remain considerably lower than those in urban regions, limiting teachers' access to online professional development programs and digital learning resources. This disparity became increasingly visible after the expansion of technology-based learning following the COVID-19 pandemic, where many rural teachers experienced difficulties in participating in sustainable digital training and collaborative professional learning activities. These conditions strengthen the urgency of investigating how rural elementary English teachers adapt their professional development under digitally constrained environments.

Previous studies have explored teacher professional development from various perspectives. Zhang et al., (2026) emphasize digital competence as a fundamental requirement for sustainable teacher education in the 21st century. Rismayanti (2026) found that digital learning platforms support self-regulated professional learning among teachers in remote elementary schools. Furthermore, Supratman et al., (2025) demonstrate that digital media training programs significantly improve instructional competence among rural elementary teachers. Situmorang et al., (2025) highlight the importance of digital literacy in bridging teacher competence with students' learning needs in English language education. Meanwhile, Ariza and Olatunde (2024) argue that teacher readiness and pedagogical adaptability are essential for implementing innovative learning approaches in resource-limited educational environments.

Despite these contributions, existing studies tend to examine teacher professional development, digital literacy, and infrastructural challenges in isolation. There is still limited comprehensive synthesis that simultaneously integrates how digital literacy, infrastructural readiness, pedagogical adaptability, and teacher agency collectively shape the professional development of rural elementary English teachers in Indonesia. Although previous studies have extensively discussed digital literacy, teacher training programs, and technology integration, these studies generally address such issues independently. Existing literature rarely examines how digital literacy, teacher agency, institutional readiness, and rural educational conditions interact simultaneously to influence teacher professional development. Consequently, a comprehensive understanding of professional growth under rural digital constraints remains limited. This gap is critical because fragmented analysis may overlook the interactional dynamics among these factors in real educational contexts. The novelty of this study lies in its integrated analytical perspective that simultaneously synthesizes digital literacy, teacher agency, institutional support, and rural educational realities as interconnected determinants of teacher professional development in rural Indonesia.

Accordingly, this review seeks to answer the following research questions: (1) How do digital constraints influence the professional development of rural elementary English teachers in Indonesia? And (2) What strategic opportunities can support sustainable teacher professional development under digitally constrained educational environments?.

METHOD

This study employed a narrative literature review design to synthesize scholarly findings related to teacher professional development under rural digital constraints. According to Aveyard (2010), narrative reviews enable researchers to interpret and integrate findings from diverse studies in order to construct broader conceptual understanding. The literature search was conducted through Google Scholar and ResearchGate databases using keywords such as “teacher professional development,” “digital divide,” “digital literacy,” “rural education,” and “elementary English teachers.”

The literature search was conducted in January 2026 using Google Scholar and ResearchGate databases. The search employed combinations of the keywords “teacher professional development”, “digital literacy”, “digital divide”, “technology integration”, “rural education”, “English teachers”, and “elementary education”. Initially, 47 studies were identified. After removing duplicate records and screening titles and abstracts, 26 articles remained for full-text review. Following the application of inclusion and exclusion criteria, 15 peer-reviewed journal articles were selected for thematic synthesis.

The data analysis followed a thematic synthesis procedure. First, relevant studies were identified and screened based on the inclusion and exclusion criteria presented in Table 1. Second, the selected literature was categorized into several thematic areas, including digital literacy development, infrastructural barriers, pedagogical adaptation, and technology-enhanced professional learning. Third, recurring patterns, similarities, and research gaps were identified through comparative analysis across the selected studies. Finally, the findings were synthesized into an integrated conceptual understanding regarding the professional development of rural elementary English teachers in Indonesia.

Inclusion Criteria

The inclusion and exclusion criteria used in selecting the reviewed literature are summarized in Table 1.

Table 1. Inclusion and Exclusion Criteria

Criterion	Inclusion Criteria	Exclusion Criteria
Publication Period	Published between 2022-2026 to ensure contemporary	Published before 2021
Research Focus	Focused on teacher professional development (TPD), digital education,	Does not address teacher development, digital literacy, or the digital divide.

Criterion	Inclusion Criteria	Exclusion Criteria
Education Level	or technology integration. Examined elementary education settings or context comparable to foundational schooling.	Focused exclusively on higher education or secondary education without relevance to foundational levels.
Geographic Content	Provided empirical or theoretical insights relevant to rural educational environments.	Solely focused on urban contexts without addressing rural digital constraints or disparities.
Source Type	Peer-reviewed journal articles to ensure academic rigor.	Non-academic sources, gray literature, or opinion pieces that lack empirical or theoretical foundations.

Based on the inclusion and exclusion criteria presented in Table 1, the literature selection process was conducted systematically to ensure the relevance, credibility, and contextual suitability of the reviewed studies. Through this screening procedure, the selected articles were identified as having significant contributions to discussions on teacher professional development, digital literacy, technology integration, and rural educational challenges. The reviewed literature was subsequently analyzed and categorized into several thematic areas to identify recurring patterns, similarities, and research gaps related to professional development under rural digital constraints. The results of this thematic synthesis are presented in the following section.

To enhance analytical rigor and reduce selection bias, each article was evaluated based on relevance to the research questions, methodological clarity, and contribution to understanding teacher professional development under rural digital constraints. The selected studies were then coded and categorized according to recurring themes, allowing patterns and relationships across studies to be identified systematically as presented in table 2.

Table 2. Inclusion and Exclusion Process

Selection Stage	Number of Articles
Initial Identification	47
Duplicate Removal	39
Title & Abstract Screening	26
Full Text Review	20
Final Include Studies	15

The literature selection process was conducted systematically through several screening stages to ensure the relevance and rigor of the data, as detailed in Table 2. In the initial identification stage, a total of 47 articles were retrieved from the selected databases using the specified keyword combinations. After a thorough review for duplication, 8 redundant records were removed, reducing the dataset to 39 unique articles. These remaining articles were then subjected to a title and abstract screening, which led to the exclusion of 13 studies that did not directly align with the core themes, leaving 26 articles for closer evaluation. Subsequently, a full-text review was performed on these articles to assess their methodological clarity and geographic contextual suitability based on the pre-established inclusion and exclusion criteria. This stage filtered out another 11 articles that did not fit the scope of foundational or rural schooling context. Ultimately, 15 peer-reviewed journal articles successfully met all criteria and were selected as the final included studies for the qualitative thematic synthesis.

RESULT AND DISCUSSIONS

Result

Based on the systematic procedures described in the method section, 15 peer-reviewed journal articles were selected as the primary sources of analysis. These studies were categorized according to their focus on digital literacy, infrastructural barriers, pedagogical adaptation, teacher readiness, and technology-supported professional development in rural educational contexts.

The selected studies and their primary findings are summarized in Table 3.

Table 3. Summary of Selected Literature

No	Author(s)	Year	Study Content	Focus	Key Findings
1	Zhang et al.,	2026	International	Digital competence	Emphasize the importance of digital competence for sustainable teacher education.
2	Rismayanti	2026	Remote elementary school	Platform-based professional development	Digital platforms support self-regulated teacher learning in remote areas.
3	Handayani et al.,	2026	Marginalized education	Digital divide intervention	Gadget provision and literacy training improve acces and learning outcomes.
4	Fadholi et al.,	2025	Indonesia	Teacher digital literacy	Reveals disparities in teachers' digital competence across provinces.
5	Zulaikha et al.,	2025	Indonesia	Advancing digital skills	Highlights national strategies for strengthening teachers' digital literacy.
6	Sood et al.,	2025	Urban vs rural indonesia	Digital divide	Identifies infrastructure and acces gaps affecting EFL teachers.
7	Munawaroh et al.,	2025	Elementary school	Teacher professionalism	Digital skilss enhance teacher adaptibility amid educational disruption.
8	Supratman et al.,	2025	Rural elementary	Digital media training	Training programs significantly improve teachers' instructional competence.
9	Situmorang et al.,	2025	English education	Teacher competence	Digital literacy bridges teachers' competence with students' learning needs.
10	Biahimo et al.,	2025	Technology-enhaced learning	Profesional development	PD strengthens teachers' ability to integrate technology into language learning.
11	Ryzqiyah & Nuroh	2025	Elementary education	Digital storytelling	Teachers' digital literacy promotes more engaging classroom practices.
12	Rofiah et al.,	2024	Rural education	ICT readiness	Teacher readiness predicts successful technology

No	Author(s)	Year	Study Content	Focus	Key Findings
13	Sulistiana & Dewi	2024	Indonesian context	Pedagogical innovation	Curriculum adaptation supports stronger digital literacy outcomes.
14	Ariza	2024	International	Teacher readiness	Teacher preparedness is crucial for implementing innovative learning approaches
15	Soekamto et al.,	2022	Rural teachers	Digital literacy-based PD	Digital literacy serves as a foundation for rural teacher professional growth

The studies summarized in Table 2 collectively demonstrate that teacher professional development in rural educational settings is influenced by multiple interconnected factors, particularly digital literacy, infrastructural readiness, institutional support, and pedagogical adaptability. Studies by Sood et al., (2025), Handayani et al., (2026), and Rofiah et al., (2024) consistently identify infrastructural limitations, such as unstable internet connectivity and limited technological facilities, as significant barriers restricting teachers' participation in professional learning activities. Meanwhile, Fadholi et al., (2025), Situmorang et al., (2026), and Zulaikha et al., (2025) emphasize that stronger digital competence enables teachers to integrate technology more effectively into English language instruction and adapt to changing educational demands.

The reviewed literature also reveals a growing shift toward self-regulated and technology-supported professional learning models. Rismayanti (2026) highlights the role of digital learning platforms in supporting independent teacher learning in remote elementary schools, while Supratman et al., (2025) and Biahimo et al., (2025) demonstrate that context-responsive digital media training programs improve instructional competence and technology integration practices. Furthermore, Munawaroh et al., (2025), Sulistiani and Dewi (2024), and Ariza (2024) collectively argue that sustainable professional development depends on the interaction among digital literacy, teacher readiness, pedagogical innovation, and institutional support.

In addition, several studies indicate that teacher resilience and professional autonomy play essential roles in overcoming digital constraints. Similarly, Ryzqiyah and Nuroh (2025) found that teachers with stronger digital literacy skills are more successful in implementing creative instructional approaches, such as digital storytelling, to support student engagement in English language learning.

Overall, the reviewed studies suggest that effective teacher professional development in rural Indonesia cannot rely solely on technical digital training. Sustainable professional growth requires integrated support systems involving infrastructure development, pedagogical adaptability, institutional commitment, collaborative learning cultures, and continuous access to professional learning opportunities. These recurring themes provide the analytical foundation for the deeper theoretical discussion presented in the following section.

Discussion

The findings of this narrative review demonstrate that teacher professional development (TPD) in rural Indonesia is a multi-dimensional process shaped by the interaction between digital literacy, infrastructural readiness, pedagogical adaptability, and institutional support. The primary challenge remains the digital divide, which Fadholi et al., (2025) defines as a persistent inequality where “rural teachers are at risk of being left behind in the digital revolution due to inadequate access to high-quality professional learning opportunities”. This is further validated by Sood et al., (2025), who found that rural English teachers

encounter significantly higher technological barriers compared to their urban counterparts. These barriers are not merely technical but structural, as Zulaikha et al., (2025) note that “structural inequalities continue to hinder equitable access to professional development” despite national efforts.

In terms of professional competence, digital literacy has transitioned from an optional skill to a “foundational competency for professional survival in the 21st century,” as argued by Soekamto et al., (2022). This alignment with the Technological Pedagogical Content Knowledge (TPACK) framework suggests that effective teaching in rural areas emerges only when teachers can integrate technology with pedagogical and content mastery. Our analysis supports Zhang et al., (2026), who emphasize that digital competence is a “fundamental requirement for sustainable teacher education”. Furthermore, Situmorang et al. (2025) highlight that this literacy is the bridge between “teacher competence and students’ learning needs” in EFL contexts.

However, this review argues that professional growth must be “context-responsive” rather than standardized. Sulistiani and Dewi (2024) explain that pedagogical innovation is most effective when training is “adapted to local classroom realities and infrastructural conditions”. This is supported by Supratman et al., (2025), whose study on digital media training showed significant improvement when programs were adjusted for rural elementary needs. Additionally, Ryzqiyah and Nuroh (2025) demonstrate that creative strategies like digital storytelling depend on the teacher’s ability to “creatively adapt instructional materials to students’ contextual learning experiences”.

A critical theme identified is the role of teacher agency and self-regulated learning. Rofiah et al., (2024) state that teachers with high self-efficacy are “more capable of adapting instructional strategies to local classroom realities” despite constraints. This resilience is echoed by Munawaroh et al., (2025), who highlight that digital skills enhance “teacher adaptability amid educational disruption”. Rismayanti (2026) further notes the importance of platforms like Merdeka Mengajar, stating they “support self-regulated professional learning by enabling teachers in remote areas to access training independently”. This shift toward independent learning is a direct response to the “limited institutional assistance” reported in rural schools.

Finally, effective TPD requires a collaborative ecosystem. Darling-Hammond et al. (2017) assert that “effective professional development is sustained, collaborative, and connected to practice”. This perspective is reinforced by Biahimo et al., (2025) who found that “continuous mentoring and technology-enhanced collaborative learning” are more effective than one-off workshops. Handayani et al., (2026) also argue that technical interventions must be “integrated with literacy support and mentoring systems”. From an equity standpoint, Ariza (2024) emphasize that “teacher preparedness and adaptability are crucial for implementing innovative practices in resource-limited environments”. By integrating these 15 perspectives, this study reveals that professional growth in rural Indonesia is a socio-technical achievement involving personal agency and systemic support.

Compared with findings from international contexts, the Indonesian case demonstrates stronger dependence on infrastructural readiness as a prerequisite for professional development. In many developed educational systems, professional learning challenges are primarily related to pedagogical innovation and technology adoption. In contrast, rural Indonesian teachers still face basic issues such as internet accessibility, device availability, and uneven institutional support. This difference highlights the importance of contextualizing teacher professional development policies according to local educational realities.

These findings can also be interpreted through the Technological Pedagogical Content Knowledge (TPACK) framework, which emphasizes that effective teaching requires the integration of technological, pedagogical, and content knowledge. In rural educational contexts, however, this integration remains difficult because teachers often experience limited infrastructure, restricted digital access, and insufficient institutional support. This finding indicates that teacher professional development in rural Indonesia is not solely determined by technological competence, but also by teachers’ pedagogical adaptability and contextual readiness in applying technology to classroom instruction. From a theoretical perspective, the findings extend

the TPACK framework by demonstrating that technology integration in rural education is influenced not only by teachers' technological knowledge but also by contextual factors such as institutional readiness, infrastructure availability, and teacher agency.

Compared with previous studies that primarily focused on digital competence or technology integration separately, this review provides a broader perspective by synthesizing how digital literacy, teacher agency, infrastructural readiness, and institutional support interact simultaneously in shaping sustainable professional development. This integrated perspective represents the primary contribution and novelty of the present study in understanding teacher professional development under rural digital constraints.

Nevertheless, this review has several limitations. Since the study employed a narrative literature review design, the findings are based on interpretative synthesis of previous research rather than direct empirical investigation. In addition, most reviewed studies focused on Indonesian educational contexts, which may limit broader generalization. Therefore, future research is recommended to conduct longitudinal and field-based studies examining the long-term impact of digital professional development programs on classroom practices and student learning outcomes.

CONCLUSION

This review concludes that teacher professional development in rural Indonesia is shaped by the interaction of digital literacy, teacher agency, pedagogical adaptability, institutional support, and infrastructural readiness. Therefore, improving teacher competence requires more than technical digital training alone. Sustainable professional development should be supported by equitable infrastructure, context-responsive training programs, and collaborative professional learning ecosystems. These findings provide practical implications for schools, policymakers, and teacher training providers in designing more inclusive and sustainable professional development initiatives for rural educational contexts.

REFERENCES

- Adel Mohammad. (2025). Listening Comprehension Difficulties Of Efl Students At The Faculty Of Languages And Translation, Azzaytuna University. *Alqalam Journal Of Medical And Applied Sciences*, 8(4), 2148–2154. <https://doi.org/10.54361/Ajmas.258410>
- Al-Harbi, N. S., & Mirza, N. A. (2024). Investigating Listening Comprehension Challenges In Online Efl Courses: Perspectives From University Students. *Journal Of Curriculum And Teaching*, 13(5), 199–218. <https://doi.org/10.5430/Jct.V13n5p199>
- Andika, A., & Indah Sari, A. (2021). The Analysis Of Learning Listening Difficulties Toward English Education Study Program Students At University Of Ma'arif Nahdlatul Ulama Kebumen In The Academic Year 2019/2020. *English Education And Literature Journal (E-Jou)*, 1(01), 9–15. <https://doi.org/10.53863/Ejou.V1i01.115>
- Ariza, J. Á. (2024). A Systematic Literature Review On Steam Pre- And In-Service Teacher Education For Sustainability : Are Teachers Ready ? *Eurasia Journal Of Mathematics, Science And Technology Education*, 20(9). <https://doi.org/10.29333/Ejmste/14982>
- Aveyard, H. (2010). *Doing A Literature Review In Health And Social Care* (2nd Ed.). Open Univeristy Press.
- Biahimo, I. F., Machmud, K., & Mestari, S. A. (2025). The Impact Of Teacher Professional Development On The Implementation Of Technology- Enhanced Language Learning : Teachers ' Perspectives (A Study Conducted At Smpn 2 Monano). *Socius: Jurnal Penelitian Ilmu-Ilmu Sosial*, 3(September), 393–397. <https://doi.org/10.5281/Zenodo.17119127>

- 1958 *English Teacher Professional Development Under Rural Digital Constraints in Indonesia: A Narrative Review – Fharel, Agung Prasetyo, Nopita Agnesia, Aulia Ramadhani, Aurora, Melani*
DOI : <https://doi.org/10.31004/basicedu.v10i4.11742>
- Dörnyei, Z. (2009). The L2 Motivational Self System. *Motivation, Language Identity And The L2 Self*, 8(4), 9–42. <https://doi.org/10.21832/9781847691293-003>
- Fadlan, A., & Tanan, S. (2024). Enhancing The Student's Ability In Writing Descriptive Text By Using Pictures At Tenth Grade Of Smk Yapis Timika. *Jurnal Ilmiah Spectral*, 10(1), 001–015. <https://doi.org/10.47255/Pez61b66>
- Handayani, T., Hidayati, A., Hefer, M., & Agus, B. (2026). Bridging The Digital Divide : The Effectiveness Of Gadget Provision Programs And Digital Literacy Training For Marginalized Students In Improving Access And Learning Outcomes (A Longitudinal Study). *Academy Of Education Journal*, 17(1), 72–81.
- Ilahiyati, N., Rohmah, Z., & Hamamah, H. (2023). The Implementation Of Wordwall Games In Vocabulary Learning. *Ijee (Indonesian Journal Of English Education)*, 10, 144–159. <https://doi.org/10.15408/Ijee.V10i1.29905>
- Irvani, A. I., & Anisah, A. S. (2024). Infrastructure And Innovation : Rethinking Digital Literacy For K-12 Learners. *Sinergi International Journal Of Education*, 2(4), 253–264.
- Izzah, L., & Keeya, K. (2019). Common Listening Challenges: Indonesian Efl Learners' Perception. *English Language In Focus (Elif)*, 1(2), 95. <https://doi.org/10.24853/Elif.1.2.95-106>
- Kulsum, E. M., & Hidayatullah, A. (2023). Conferences Series Learning Class Investigating Students' Listening Problems In Efl Learning. *Gunung Djati Conference Series*, 32.
- Kurniawati, D. (2019). Factors Affecting The Learning Listening English. *English Education: Jurnal Tadris Bahasa Inggris*, 12(2), 25–41. <https://ejournal.radenintan.ac.id/index.php/Engedu>
- Lamb, M. (2017). The Motivational Dimension Of Language Teaching. *Language Teaching*, 50(3), 301–346. <https://doi.org/10.1017/S0261444817000088>
- Lee, J. (2021). Analyzing Speech Rate In Csat Listening Comprehension: From The Perspectives Of Washback Effects And Learning Transfer. *Korean Journal Of English Language And Linguistics*, 21(December), 1214–1231. <https://doi.org/10.15738/Kjell.21..202112.1214>
- Munawer Mukhleif, F., & Saif Al-Deen Saleh, M. (2024). The Effect Of Recursive Listening Activities On Efl Iraqi Pupils' Language Learning. In *Journal Of Information Systems Engineering And Management* (Vol. 2025, Issue 36s). <https://www.jisem-journal.com/>
- Noels, K. A., Lou, N. M., Lascano, D. I. V., Chaffee, K. E., Dincer, A., Zhang, Y. S. D., & Zhang, X. (2020). Self-Determination And Motivated Engagement In Language Learning. *The Palgrave Handbook Of Motivation For Language Learning*, 95–115. https://doi.org/10.1007/978-3-030-28380-3_5
- Rismayanti, L. (2026). Bridging The Digital Divide : Management Of Platform Merdeka Mengajar For Self-Regulated Teacher Professional Development In Remote Elementary Schools. *Bridging The Digital Divide: Management Of Platform Merdeka Mengajar For Self-Regulated Teacher Professional Development In Remote Elementary Schools* Listia, 6(March), 1–9. <https://doi.org/10.58905/Jse.V6i2.1.716>
- Rusmiati, R., Rakhmyta, Y. A., Hanif, H., & Saputra, E. (2024). Extensive Listening As A Tool For Language Proficiency Improvement: A Qualitative Analysis Of Student Feedback. *Getsempena English Education Journal*, 11(1), 28–38. <https://doi.org/10.46244/Geej.V11i1.2876>
- Shofia Rafifatus Nadila, & Ahmad Munir. (2025). Senior High School Students' Experiences And Perceptions Of Wordwall In Writing Descriptive Texts. *Sintaksis : Publikasi Para Ahli Bahasa Dan Sastra Inggris*, 3(4), 254–264. <https://doi.org/10.61132/Sintaksis.V3i4.2124>
- Sood, M., Yassin, M., & Septiana, D. (2025). The Digital Divide In Post-Pandemic Education : Perceptions Of Urban And Rural Efl Teachers In Indonesia. *Indonesian Journal Of Education & Mathematical Science*, 6(3), 169–174. <https://doi.org/10.30596/Ijems.V6i3.26441>

- 1959 *English Teacher Professional Development Under Rural Digital Constraints in Indonesia: A Narrative Review* – Fharel, Agung Prasetyo, Nopita Agnesia, Aulia Ramadhani, Aurora, Melani
DOI : <https://doi.org/10.31004/basicedu.v10i4.11742>
- Uchihara, T., Webb, S., Saito, K., & Trofimovich, P. (2022). The Effects Of Talker Variability And Frequency Of Exposure On The Acquisition Of Spoken Word Knowledge. *Studies In Second Language Acquisition*, 44(2), 357–380. <https://doi.org/10.1017/S0272263121000218>
- Yahmun, Y., Sumarti, E., & Setyowati, D. (2020). Listening Difficulties Faced By The First Semester Students At Basic Listening Class. *Journey: Journal Of English Language And Pedagogy*, 3(1), 57–61. <https://doi.org/10.33503/Journey.V3i1.728>
- Yuan, Y., & Zhen, H. (2021). Teaching And Researching Motivation. *Frontiers In Psychology*, 12(December), 1–2. <https://doi.org/10.3389/fpsyg.2021.804304>
- Zulaikha, S. (2025). “ Bridging The Digital Divide ”: Assessing And Advancing Teachers ’ Digital Literacy Across Indonesian Provinces. *Journal Of Educational Management And Instruction*, 5(1), 195–212.