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Rural Area Students' Perception of ICT Integration in ELL Class: East Nusa Tenggara Context

Metria Dicky Putra*
English Department, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Modjo Kale Djami
English Department, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Alfi Hulwatun Nasichah
English Department, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Maria Marselina Goran
English Department, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Muhhamad Randy
English Department, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Kiki Patmala
English Department, Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

***Abstract*—This study aims to examine the perceptions of secondary students in rural areas in East Nusa Tenggara about integrating Information and Communication Technology (ICT) in English language learning (ELL). The research used a qualitative approach with open-ended questionnaires involving 38 participants and semi-structured interviews with 4 students. The results of the study show that the majority of students have a positive view towards ICT because it can improve reading, speaking, and material comprehension skills. The use of ICT was also considered to be able to increase students' motivation to learn. However, challenges such as limited internet access, quota constraints, and difficulties with English material comprehension were also identified. Students employed various strategies to overcome these obstacles, including self-study, assistive technology, and seeking social support. The study was summarized by providing instructional suggestions to enhance the integration of ICT, aiming to establish equitable and responsive learning environments that accommodate diverse needs of learners.**

***Index Terms*—students' perceptions, ICT, ELL class, rural area**

I. Introduction

Information and Communication Technology (ICT) has become crucial to effective learning in modern education (Madhavi et al., 2023; UNESCO, 2023). It has developed rapidly and affected how teachers deliver lessons and how students learn (Shahmir et al., 2011). This shift is not just a trend but a great transformation of the conventional pedagogical process (Kumar & Priyanka, 2024). It presents many entertaining methods and resources that make learning more interactive, enjoyable, and accessible. Such rapid advancements underscore the critical role of ICT in enhancing educational quality by providing diverse tools that cater to different learning styles and needs. This ongoing development stresses the necessity for educators and institutions to adapt continuously, ensuring that technology integration effectively supports students' engagement, motivation, and achievement across various contexts.

According to the UNDESA-GAID (2009; as cited in UNDP, 2010), ICT encompasses a wide range of electronic instruments and resources employed for communicating, processing, and sharing information and knowledge, while Valverde-Berrocoso et al. (2022) define it as a set of technologies that contain, store, and disseminate information. Hiradhar and Bhattacharya (2022), describe ICT as various technologies to access, collect, process, and share information, and functions as a tool and modifier to prepare, extend, redesign, and improve the students' learning experience. Based on the definitions, ICT can be meant as a technological foundation that supports the management of information and knowledge while enriching the educational process through innovation and interactivity.

After understanding the various definitions of ICT, it is important to become familiar with the different types of ICT that exist in education as learning tools. UNESCO (2023) categorizes the ICT into three basic elements: devices or

hardware, including desktop computers, laptops, tablets, and smartphones; software, like computer programs, applications, and websites; and internet connectivity. The integration of these resources into the learning process can help teachers design authentic learning within the classroom, provide support for complex tasks, and improve supportive feedback and students' engagement (Bransford et al., 2000).

Previous studies have demonstrated that using ICT in English language learning (ELL) is significant since it can improve the students' language skills through interactive methods. The use of learning applications and online platforms enables students to practice listening, speaking, reading, and writing in real-life contexts (Madhavi et al., 2023; Rajendran et al., 2016). Studies show that the use of multimedia such as video and audio can help students learn accurate pronunciation, which is crucial to improving communication skills in English (Xue & Zhao, 2024; Zunaidah & Asih, 2024). It can also improve their skills more quickly since it provides immediate feedback on vocabulary, grammar, and pronunciation (Kuhail et al., 2023; Lee et al., 2020). Additionally, ICT supports collaborative learning (Madhavi et al., 2023), in which students can work together on projects and tasks, so they can enhance their engagement and motivation in learning (Andres, 2022). This suggests that students' engagement with ICT depends on multiple factors beyond mere availability of technology.

While the benefits of ICT are well-documented from a technological perspective, understanding how students perceive these tools is equally important to expand or develop concepts (MacKinnon & Scarff-Seatter, 1997). Students' perceptions shape how they interact with technology and ultimately influence their motivation and effectiveness when using ICT for learning. Their use of specific tools is shaped primarily by prior experiences outside school with technology, alongside individual motivations, attitudes toward learning, and learning styles, which are substantially affected by gender and socio-cultural background (Dar & Jan, 2022; Volman et al., 2005). Furthermore, perceptions about using technology impact learners' motivations and participation during lessons. According to Merriam-Webster dictionary, perception refers to the process of attaining awareness of the elements of the environment through physical sensation interpreted based on experience (Lam et al., 2020). In this context, the perception of students contains their beliefs on how well technology helps them to learn and how their experiences are supported by technology. Research by Lee and Lee (2023) indicates that positive perception towards ICT is related to the improvement of motivation and learning achievement. Therefore, it is important for teachers to understand students' perceptions to determine the appropriate approaches that can encourage motivation and engagement in the learning process.

Despite its advantages, the practical implementation of ICT-based learning faces significant challenges in certain contexts. These challenges become especially apparent in rural areas where infrastructure limitations affect both access to technology and its effective use (Mhalana et al., 2022). In Indonesia, education in rural areas, such as East Nusa Tenggara, often encounters numerous obstacles related to limited access to technology (Kandau et al., 2024), such as internet access and digital tools. Such limitations become the main barriers for students and teachers to use the online learning platform (Prahmana et al., 2021). Besides that, the lack of teacher training concerning ICT worsens the digital gap, so they are unable to incorporate technology into their teaching-learning process effectively (Faiqoh et al., 2019). As a result, students attending rural schools often get left behind in the quality of knowledge and skills compared to those who study in urban schools (Kandau et al., 2024).

Considering the contextual challenges faced by rural education systems, it is important not only to resolve infrastructure problems but also to understand how students view and use ICT tools in their learning environments. Although previous research highlights the benefits of ICT broadly, students' perceptions in rural contexts are often overlooked. Most of the prior research was more focused on urban contexts without considering the unique factors that influence rural area students' contexts, such as inadequate infrastructure and limited access to the internet. Such a gap calls attention to the need for targeted research examining how students in rural areas engage with and perceive ICT within their educational environments.

This study aims to fill this gap by focusing on rural secondary school students' perception of the roles of ICT in ELL classes. Our main goals are to understand how the students perceive the functions of technology in their learning process and to identify the type of support they need to enhance their learning experience. As educational researchers focused on eliminating educational disparities, we strive to formulate practical recommendations based on the results of our findings. These insights can be used by educators and policymakers to provide support for rural students through the appropriate technology and teaching methods.

The research questions guiding this study are (1) How do rural students view the role of ICT in their ELL process? (2) What kind of support do students need to improve the quality of their ELL class?

By answering these questions, this study seeks deeper insights into the experience and challenges faced by rural areas in using ICT for English language learning. The findings are expected to enrich academic literature and offer practical recommendations for educators and stakeholders aiming at improving ICT integration within rural education settings.

II. Literature Review

A. ICT Integration in English Language Learning (ELL)

The integration of Information and Communication Technology (ICT) into English Language Learning (ELL) has transformed educational methodologies by fostering interactive and student-centered strategies. Information and Communication Technology (ICT) tools, including multimedia applications, online platforms, and mobile-assisted

language learning (MALL) resources, have augmented students' opportunities to practice English skills both within and beyond the classroom (Martinez et al., 2025). Research conducted by Alobaid (2021), indicates that multimedia-based learning enhances students' pronunciation, vocabulary development, and grammatical precision by providing exposure to authentic materials and immediate feedback. These features enhance the flexibility and personalization of learning, promoting self-directed education and motivation (Qianyi & Zhiqiang, 2024).

Information and Communication Technology (ICT) enhances collaborative and communicative learning, which are the basic principles of contemporary language teaching (Selfa-Sastre et al., 2022). Utilizing resources like as discussion forums, collaborative online projects, and gamified learning platforms, learners participate in interactive communication that reflects authentic English usage. Thus, ICT integration corresponds with constructivist learning theories, wherein students actively construct knowledge through engagement and reflection (Abedi, 2024). The efficacy of ICT-based ELL depends not only on technological availability but also on teachers' capacity to meaningfully incorporate it into instructional practices (Abraham et al., 2022).

B. Students' Perception of ICT in Learning

Students' perceptions are crucial for determining the efficacy of ICT in enhancing learning outcomes. Positive attitudes about ICT correlate with heightened involvement, intrinsic motivation, and enhanced academic performance (Calderón et al., 2020). Conversely, negative attitudes or diminished confidence in technology utilization may hinder participation and restrict learning opportunities. Dubois et al. (2021), assert that perception entails the interpretation of sensory events informed by prior knowledge and contextual factors. In educational contexts, students' perceptions of the utility and accessibility of technology affect their propensity to utilize it for learning (Sayaf et al., 2022).

Furthermore, views are influenced by various aspects like previous technological experience, gender, socio-economic status, and learning preferences (Gerlich, 2023). Research by Albakri and Wood-Harper (2025), highlights that students in technology-rich situations exhibit greater digital confidence and readiness than students in under-resourced settings. Consequently, comprehending students' perceptions is crucial for teachers to create inclusive learning strategies that cater to varied backgrounds and technological competencies.

III. Methodology

This research is qualitative research that is categorized as exploratory research because it aims to understand phenomena that have not been widely researched or to delve deeper into a complex topic (Swedberg, 2020). Exploratory design in qualitative research plays a crucial role when the subject under investigation remains unclear, such as how students interact with ICT in English language learning within rural settings (Safira et al., 2024). In this context, the researcher seeks to explore how students view and experience the use of ICT in English language learning, especially in rural schools in East Nusa Tenggara Province, which until now is still underrepresented in the literature.

Participants in this study were high school students from six schools in three districts in East Nusa Tenggara Province. The schools consisted of two junior high schools and four high schools, which were purposively chosen because they were known to have implemented the use of ICT in English language learning. The total number of participants was 38 students aged between 12 and 19 years, consisting of 24 female students (63.2%) and 14 male students (36.8%). Regarding the levels, the students originated from grades VII (5.3%), VIII (34.2%), IX (2.6%), X (18.4%), XI (13.2%), and XII (26.3%). Demographic characteristics, such as geographical location (Sarkar et al., 2023), educational level (Xiao & Sun, 2022), and socio-economic background (Lee & Rice, 2014) constitute a vital aspect in comprehending students' interaction with ICT. A thorough consideration of these variables allows researchers to contextualize findings more precisely and formulate pedagogical recommendations that are both equitable and responsive to diverse learner needs.

Data were gathered through an open questionnaire (Creswell & Creswell, 2023), and a semi-structured interview technique (Ugwu & Val, 2023). Open-ended questionnaires are used as preliminary data (secondary data) to provide an overview of students' perceptions and experiences of ICT use. The questionnaire instruments were created using Google Forms and distributed only after the researchers obtained official approval from English teachers in the six schools. All 38 students filled out this questionnaire. However, the main data in this study is sourced from in-depth interviews conducted with four students who were purposively selected based on their activity, level representation, and the content of the answers to the previous questionnaire.

Semi-structured interviews are chosen because they allow flexibility in exploring themes that arise during the interview process, as well as providing space for students to explain their experiences in depth (Ugwu & Val, 2023). This technique is considered effective in exploratory studies because it allows researchers to tailor follow-up questions based on participants' responses. Using an interview guide, interviews were organized based on students' availability and recorded in audio format, which has been proven effective in uncovering detailed learning experiences, particularly in the multifaceted use of educational technology.

Data from interviews were analyzed using thematic analysis to identify, analyze, and interpret patterns of meaning (themes) in qualitative data (Clarke & Braun, 2016). The thematic analysis procedure is carried out through six stages, namely: (1) familiarization of the data, (2) initial coding, (3) theme search, (4) theme review, (5) theme naming and definition, and (6) report preparation. This method is considered appropriate for comprehending the complex and varied experiences in rural education, where students have different levels of exposure to ICT.

IV. Result and Discussion

In this section, the results of data analysis related to the use of technology in the school environment and students' perception of the integration of technology in the English learning process will be presented. The presentation of these results will be associated with the latest literature and theory review to provide an in-depth understanding of the actual conditions and challenges faced in the implementation.

A. The Most Widely Available Technology in Schools

The results of the interviews show that technological devices such as laptops, computers, and projector are the most widely available in schools. S3 said, "Usually use a laptop, projector, and computers," while S1 states, "This is a laptop and projector. That's it." However, the use of these devices in English learning is still very limited. S2 says, "Laptops are never used for English," and S4 adds, "Computer labs are only used for computer or extracurricular lessons, not English." This statement indicates that although the device is physically available, its use is highly dependent on the teacher's initiative.

The findings of the questionnaire support the results of this interview. All respondents (n = 38) stated that their school had provided technology facilities for learning. Of all the types of technologies mentioned, there are three main technologies that appear most often in student responses. First, computers and projector are the most dominant types of technology, mentioned by almost all respondents (computers: 94.7%; projector: 81.6%). This device is widely used in delivering subject matter, both by teachers and by students, when making presentations. Second, internet access (86.8%), which is an important means that is also widely mentioned, indicating that the majority of schools have provided connectivity for online learning purposes. Third, presentation applications such as PowerPoint and Canva (68.4%) are also among the most commonly used technologies, supporting visual and creative delivery activities. These findings indicate that schools in rural areas already have adequate basic infrastructure to integrate technology into the English teaching and learning process.

These findings are in line with the key components of ICT according to UNESCO (2023), which include hardware, software, and internet connections. However, as stated by Kumar and Priyanka (2024), the existence of technology does not guarantee the effectiveness of its use in learning without being supported by relevant pedagogical practices and teachers' awareness to integrate technology.

B. Frequency of Technology Use

Furthermore, the interview data showed that although all students have access to technology devices such as computers, laptops, and projector in school, the level of their use in learning varies greatly and is still mostly limited. Of the four students interviewed, only one student (S3) reported regular use of technology in class, such as the use of Canva apps, PowerPoint, and Projector devices. Meanwhile, three other students stated that digital tools are not actively used in English learning and are only used at certain moments, such as during supervision or activities outside of class hours.

However, all students stated that they independently utilized technologies such as Google Translate, ChatGPT, and Duolingo to support their understanding of the material and complete English assignments outside of the classroom. This shows that although the frequency of formal use of technology in the classroom was still low, students demonstrated high learning initiative through the independent use of technology.

The above information is supplemented by quantitative data from the questionnaire, as shown in Table 1 below:

Table 1
Frequency of ICT Use by Students

Frequency of Use	Number of Students	Percentage (%)
Very often	4	10.5%
Often	12	31.6%
Sometimes	5	13.2%
Rarely	4	10.5%
Not detected (not answering specifically)	13	34.2%
Total	38	100%

The results of the questionnaire in the table show that 42.1% of students admitted to using technology with a frequency of "often" or "very often", while 23.7% stated "sometimes" or "rarely". This indicates a difference in perception between formal learning and independent learning. Therefore, although the frequency figures were quite high, the interview data confirmed that the formal use of technology in English classes was still limited. This strengthens the argument of Hiradhar and Bhattacharya (2022) that ICT also serves as an extension and support for learning outside the formal classroom, and supports the statement of Bransford et al. (2000) regarding the importance of engagement and access to authentic learning resources.

C. Students' Perception of the Benefits of ICT in English Language Learning

Students generally have positive perspectives on the benefits of technology in learning English. In interviews, students stated that it assists them in finding the meaning of words, practicing pronunciation, and supporting reading and writing skills. For example, S1 explained, "If we don't know a word, we can use Google Translate," while S2 added, "On Duolingo, you can learn new words and how to pronounce." Furthermore, S3 revealed that technology opens up broader learning opportunities by stating, "We can learn through various sources, not only from books." These indicate that technology serves as a valuable tool for language learners in multiple facets.

The findings from the questionnaire corroborate the results of the interview. Nearly half of the students stated that technology helps improve specific language skills, such as speaking, reading, writing, and listening. Table 2 below shows the details of student perceptions:

TABLE 2
STUDENTS' PERCEPTION OF THE BENEFITS OF USING ICT

Main sub-themes	Number of students	Percentage (%)	Sample answers
Improvement of specific language skills	18	47.4%	*"That is, reading and speaking." "Presentation"*
Facilitate the understanding and learning process	11	28.9%	*"It helps to be easy to understand."*
Access to new knowledge and increased motivation	5	13.2%	*"Learn English easily"*
General positive perception without details	4	10.5%	*"Very helpful", "Yes"*
Total	38	100%	

Thematic analysis of students' responses showed that their perceptions of the use of technology in English language learning could be grouped into four main themes. First, the majority of students (47.4%) stated that technology helps in the improvement of specific language skills, such as speaking, listening, reading, writing, and presentation. They feel that technology reinforces the learning of language skills in a practical way, as expressed in statements such as "helps the way of speaking" and "presentation, reading." Second, as many as 28.9% of respondents highlighted that technology facilitates the process of understanding material, clarifies learning, and helps them in understanding English in general. Third, as many as 13.2% of students emphasized that technology provides access to new knowledge and allows them to learn independently through the internet or social media. Fourth, about 10.5% of students expressed a general positive attitude toward the use of technology without a detailed explanation, such as "very helpful," though without a detailed explanation.

These findings on students' learning perception correspond to the results of Lee et al. (2020) and Kuhail et al. (2023), who demonstrate that the use of technology is able to provide direct feedback and improve vocabulary, grammar, and pronunciation skills. Together, these results underscore the multifaceted benefits of ICT as perceived by English learners.

D. Challenges in the Use of ICT

Despite the clear advantages technology offers in the context of English language education, students invariably confront a series of significant obstacles that limit its optimal utilization. Interview findings indicate that the foremost challenges encompass inconsistent internet connectivity, restrictive data quotas, and the absence of personal digital devices such as mobile phones among a portion of the student body. For example, S1 pointed out the limited engagement with devices by stating, "The tools (laptop and Projector) are used only when the teacher is supervised by the school principal." S2 claimed the issue of unequal access by saying, "Some of the students don't have cellphones," which reflects that some students lack personal cellphones to support their learning. S3 reported that the connectivity problem with "The internet connection sometimes disappears, sometimes available," emphasizing the unreliability of internet access. S4 revealed the restricted use of school resources by stating, "We never go to the lab. The teacher prefers to use the projector instead", showing that computer labs are rarely used, with teachers favoring projectors.

Data from the questionnaire also shows similar challenges, as shown by the following Table 3 below. The most dominant themes (56.6%) were internet access and connectivity issues, such as no network, poor signal, or slow connection. In addition, 10.5% of students experienced difficulties due to limited quotas or credit. As many as 13.2% of students also expressed obstacles in comprehending English material, such as difficulty understanding the meaning of words or pronunciation. Other challenges included technical and cognitive difficulties (7.9%) as well as social and psychological barriers (7.9%), such as parental prohibition or boredom in learning to use technology. Meanwhile, 5.3% of students stated that they did not face significant challenges.

TABLE 3
CHALLENGES IN THE USE OF ICT

Challenge Theme	Number of students	Percentage (%)	Sample answers
Internet access and connection issues	21	56.6%	*"No internet", "The signal is poor"*
Quota or credit problems	4	10.5%	*"Out of package credit"*
Obstacles to understanding English material	5	13.2%	*"Cannot read English well"*
Technical and cognitive constraints	3	7.9%	*"How to pronounce", "I don't understand"*
Social and psychological factors	3	7.9%	*"Parents forbid", "I feel bored."*
No challenge	2	5.3%	"*None*"

These findings corroborate the statements of Mhalana et al. (2022) and Kandau et al. (2024) that infrastructure barriers, such as unreliable internet connections, lack of access to proper digital devices and insufficient support facilities, become the main issues in the application of ICT in rural areas of Indonesia, which causes a disparity in educational quality between urban and rural regions.

E. Students' Strategies in Overcoming Challenges

Students demonstrated a variety of adaptive mechanisms to overcome technological limitations. In the interview, S4 mentioned, "We can borrow a dictionary at the library," while S1 said, "Learn to use books. Ask the teacher the next day or ask a friend for help." S2 also took advantage of another feature, "Translate via WA." S3 added that teachers also helped by providing alternatives, "If the technology is broken, teachers prepare a backup printout of the material".

These qualitative findings aligned with the results of the questionnaire, where students used a lot of combinations of internet access searches and independent learning strategies. Table 4 below summarizes these results. Approximately 33% of students rely on internet access efforts, such as filling up data packets or finding places with better signals. As many as 28% of students choose to rely on discipline and personal learning strategies, such as studying harder or maintaining focus. Some also use additional technology such as dictionaries, ChatGPT, or YouTube (18%), and others choose to ask for help from teachers or pray (10%). Meanwhile, 10% of respondents did not mention a specific strategy.

TABLE 4
HOW STUDENTS OVERCOME CHALLENGES

Strategies to Overcome Challenges	Number of students	Percentage (%)	Sample answers
Internet access and data/credit top-up	13	33%	*"Charging data plan", "Searching for wifi"*
Self-study strategies and personal discipline	11	28%	*"Study harder", "Focus and order."*
Using assistive technology	7	18%	*"Using ChatGPT", "Looking in the dictionary"*
Social support	4	10%	*"Ask the teacher".*
Not answering specific	4	10%	*"Waiting"*
Total	38	100%	

The diversity of these strategies not only highlights the resilient spirit of the students but also reflects the supportiveness of the learning community. This collective effort embodies the principle of Freedom of Learning outlined in the Ministry of Education and Culture's policy, which emphasizes student independence and active participation in the learning process.

F. Suggestions for Improvement From Students

In the interviews, students proposed several practical recommendations related to technology optimization in schools, which primarily focused on maximizing computer laboratory use, minimizing reliance on cellphones, and ensuring equitable device availability. S2 stated the importance of increasing computer usage by stating, “We should use computers more often because some students don’t have cellphones, so it’s better to utilize the tools provided by the school”. S4 suggested the inclusiveness aspect by adding, “We should learn in the computer lab so that all students can access learning equally”. S1 stressed the effectiveness of lab-based learning with, “If possible, let’s do all English learning activities in the laboratory… it makes learning easier”. Meanwhile, S3 highlighted that technology such as laptops, Projector, and applications broadens learning sources beyond traditional books, making learning more efficient, even though she did not provide additional direct recommendations.

These qualitative insights are reinforced by the questionnaire data shown in Table 5 below. The majority of students, 34%, suggested that schools provide permanent internet access, including free Wi-Fi or an internet quota. In addition, 24% proposed improving the quality of the material and making explanations easier to understand, and 21% of students revealed the use of more varied and fun learning media, such as games, quizzes, or learning videos. Meanwhile, 13% proposed that students' learning abilities be improved through motivation and exercise, and 5% suggested additional support facilities such as computers or earphones. Only 3% feel that there is nothing that needs to be improved further.

TABLE 5
SUGGESTIONS FOR INCREASING THE USE OF ICT

Suggestions for Improvement	Number of students	Percentage (%)	Sample answers
The school provides internet/quota	13	34%	*"Schools provide quotas permanently."*
Improved quality of material and explanations	9	24%	*"The explanation is more interesting and easier to understand."*
Addition of interesting learning media/features	8	21%	*"Add quizzes, games, and learning videos."*
Increased students' motivation and learning ability	5	13%	*"Learn harder", "Need to increase the enthusiasm for learning"*
Additional supporting equipment (computer, earphones)	2	5%	*"Multiply computers", "Provide earphones"*
Nothing needs to be improved	1	3%	*"It's good enough."*
Total	38	100%	

Suggestions and feedback from students actually reflect their critical insight developed through their experiences of learning using technology. This perspective connects with what Volman et al. (2005) stated, which argued that students' attitudes toward technology are shaped by their experiences and social contexts. By integrating students' perspectives, education policies can become more responsive and tailored to their specific contexts.

The overall results of this research and discussions show that the incorporation of technology in English learning in rural schools has great potential, though it still faces various structural and pedagogical challenges. Therefore, comprehensive interventions need to be carried out to support the implementation of ICT sustainably and inclusively.

V. CONCLUSION

This study shows that the availability of ICT in secondary schools in rural areas of East Nusa Tenggara basically includes basic devices such as computers, projector, and internet connections. However, its use in English learning is still not optimal and tends to depend on the policies and initiatives of each teacher. This is reflected in the low frequency of use of these devices in teaching and learning activities, as well as the limited integration of technology in teaching strategies oriented towards developing students' language skills.

Nonetheless, students have a positive perception of the role of technology in learning. They believe that technology can assist in comprehending the material, expanding vocabulary, enhancing pronunciation, and making access to the information and learning materials easier. Some students are even using apps such as Google Translate, Duolingo, and ChatGPT to aid in the learning process outside of school. These results emphasize the participative, ICT-based approach to learning in response to students' needs, conviction in Pancasila Student Profile with the emphasis on digital literacy skills, learning autonomy, and critical thinking (Kemendikbud, 2020).

However, the main challenges faced by students include limited internet access, lack of personal devices, and lack of pedagogical assistance in the use of technology. This reflects the digital divide that is still real in rural areas, which has also been identified by the Ministry of Education and Culture's Strategic Plan for 2020-2024 as one of the priority issues in efforts to equalize the quality of national education. On the other hand, students' adaptive efforts in overcoming these obstacles, such as borrowing dictionaries from the library, asking teachers or friends, and learning from printed materials, show the potential for resilience and motivation to learn that need to be further supported.

The implications of this study emphasize the need for more concrete and operational affirmative policies in supporting ICT integration in rural schools. First, there is a need for an ongoing training program for teachers in integrating technology pedagogically into English learning. Second, the management and utilization of ICT facilities in schools, such as computer laboratories, need to be directed so that they are not only focused on certain subjects, but also support cross subjects equally, including English. Third, infrastructure support, such as the provision of stable internet access and curated online learning resources, needs to be pursued as part of the Digital Transformation of Indonesian Education proclaimed in the Independent Learning Policy.

Furthermore, these findings also contribute to academic discourse on the importance of understanding student perceptions in the formulation of ICT-based learning strategies. When students' perceptions and learning experiences are considered, the technological interventions developed will be more contextual, inclusive, and sustainable. Therefore, efforts to realize quality and equitable education in Indonesia, as stated in the Sustainable Development Goals (SDG 4), must consider the voices and needs of students, especially in disadvantaged and underserved areas.

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Metria Dicky Putra earned his Bachelor's degree in English Language Education from Universitas Negeri Padang and is currently undertaking a Master's program in English Language Education at Universitas Negeri Yogyakarta. His research interests encompass vocabulary acquisition, the integration of technology into language teaching, and the application of digital media to enhance English language learning across diverse educational settings. He is particularly interested in exploring how innovative, technology based instructional approaches can improve learners' vocabulary mastery, foster engagement, and address the varying needs of students in both urban and rural contexts. Through his academic and professional endeavors, he aims to contribute to the development of effective, inclusive, and technology-enhanced language learning strategies. ORCID iD: 0009-0004-8265-0249

Modjo Kale Djami earned her Bachelor's degree in English Education from Nusa Cendana University and is currently pursuing a Master's degree in English Language Education at Universitas Negeri Yogyakarta, Indonesia. Her academic interests cover English language teaching, curriculum and material development, critical thinking, and the integration of ICT in language learning, particularly in rural contexts. She has conducted some research on students' and parents' perceptions of ICT in English language learning and a bibliometric study on critical thinking in ELT. Her work reflects a strong commitment to promoting equitable and context-sensitive English education in Indonesia's rural schools. ORCID iD: 0009-0003-7691-6568

Alfi Hulwatun Nasichah earned her Bachelor's degree in English Language Education from UIN Prof. K. H. Saifuddin Zuhri Purwokerto and is currently pursuing a Master's degree in English Language Education at Universitas Negeri Yogyakarta. Her research interests encompass English Language Teaching (ELT), technology-enhanced learning, learner motivation, and innovative pedagogical approaches in English as a Foreign Language (EFL) contexts. Her academic work also investigates students' perceptions of innovative instructional strategies to improve writing and communication skills. Through her academic and professional endeavors, she aims to advance inclusive, technology integrated English language learning frameworks that empower both educators and learners to achieve equitable and transformative educational outcomes across diverse contexts. ORCID iD: 0009-0000-4296-8608

Maria Marselina Goran earned her Bachelor's degree in English Language Education from Universitas Nusa Cendana and is currently undertaking a Master's program in English Language Education at Universitas Negeri Yogyakarta. Her research interests include the integration of local content in English language learning to improve the English proficiency of students in rural-remote areas. She is also deeply interested in the utilization of interactive learning media to enhance motivation and interest in learning among students in rural remote area. Through her academic and professional activities, Maria Marselina Goran aims to contribute to the development of learning strategies by integrating local content and interactive technology to provide meaningful, mindful and joyful learning experiences for students. ORCID iD: 0009-0008-0616-853X

Muhhamad Randy earned his Bachelor's degree in English Language Education from Universitas Pattimura in 2022. He is currently undertaking a Master's program in English Language Education at Universitas Negeri Yogyakarta (UNY). His research interests are centered on professional teacher development, effective teaching strategies, and the integration of local content in English Language Teaching (ELT). Through his academic work, Randy aims to bridge the gap between theory and practice, contributing to the development of practical strategies that support teacher growth and make learning more contextually relevant for students.

Kiki Patmala earned her Bachelor’s degree in English Education at UIN Alauddin Makassar and is currently pursuing a Master’s degree in English Language Education at Universitas Negeri Yogyakarta. Her academic interests include English language teaching, students’ learning needs, and material development, particularly for young learners. She is deeply interested in how ICT-based instruction and contextualized materials can enhance vocabulary mastery, speaking performance, and learner autonomy. Through her research and teaching experience, she aims to contribute to the advancement of engaging, inclusive, and technology-enhanced English learning practices that better address students’ diverse needs and learning styles. ORCID iD: 0009-0008-3417-1218