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The Immense of Digital Divide: A Literature Review of Rural and Urban Schools's Classroom Technologies in English Language Learning

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ABSTRACT

This article aims to review various studies on the immense digital divide between rural and urban schools, specifically on classroom technologies in English language learning. We synthesize 26 from 2016-2023 discussing some external and internal issues regarding the differences between rural and urban schools' classroom technologies in English language learning, including (a) Integration of Information and Communication of Technology (ICT) in English language learning in rural and urban school areas (b) Digital divide between the use of technologies in rural and urban school area, (c) External and internal factors (d) challenges. The majority of researchers in the study above used qualitative, quantitative, and mixed-method studies to find the result of the study through experiments, observations, and interviews. These recent studies have shown the relevant findings and results implemented in English language learning.

Introduction

Modern world activities and issues use technologies in every daily human aspect of life, such as transportation, communication, medicine, health, transactions, and education. A big part of technology has contributed to education evolution, which causes excellent assistance and accessibility in learning and teaching. However, it is proven that all countries have applied technologies for most of the learning process, which makes effective learning (supports teachers' learning process and increases students' knowledge and motivation (Khodabandelou et al., 2016). People believe the new technologies will support the education system in providing more effective communication and better learning objectives, including English language learning (Hossain, 2016).

The Indonesian Education Ministry government asserted that all teachers need to have the technology used quality for teachers with the PembaTIK course for all teachers in Indonesia, which has been successfully applied in most schools in Indonesia, including the English language process. In teaching English, most teachers depend on technology to use a better perspective of teaching methods other than the traditional method (Lukas

& Yunus, 2021). Veerasamy and Goswami (2022) added that some online learning applications can enhance students' English learning, accessed in the classroom or outside the school. It can help them to increase their skills in the English language. In other words, many people have seen how technology can benefit teachers and students in learning. However, there are many people said the use of technology can have a positive impact on the process of learning. It is not accessible to students in rural areas. We know that Indonesia needs help with the quality of education and the health gap between urban and rural areas. (Hossain, 2016) stated that students in rural areas perform poorly in English skills than students from urban areas for some reasons. One of the reasons is the unreachable technology used because of the limited internet and access from the metropolitan cities.

Research Methods

The current review was conducted according to the Preferred Reporting Items for Systematic Reviews (PRIMSA) guidelines, a systematic literature review. A systematic literature review is a scientific way to answer a research study that details specific steps and procedures to result in some findings and avoid the risk of biased conclusions (Lame, 2019). In a mission to gain a better point of view about the "Digital divide of using technologies in urban and rural school's English language context," the following research questions are formed:

1. What are the conditions of ICT implementation in English language learning in urban and rural schools?
2. What is reported about the (1) digital divide between urban and rural schools, (2) External and internal factors, and (3) Teachers' challenges?

The capability characteristics involved in published journals/articles/editorials/official websites are in the following search terms:

1. ICT Implementation (Technology implementation in EFL contexts in urban and rural schools in Indonesia, Benefits and Challenges)
2. Digital divide (Rural transformation and urbanisation in EFL contexts, Urban areas, Rural areas)

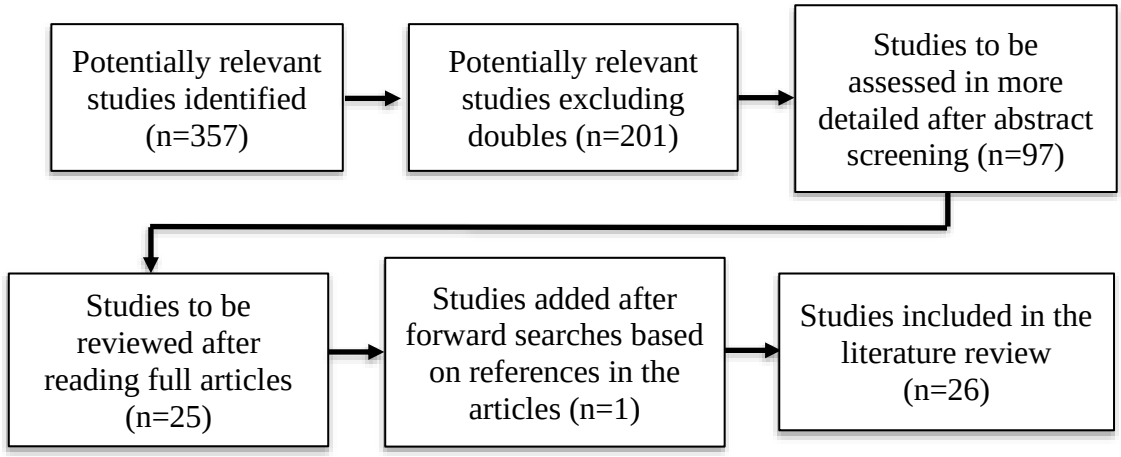
For finding the updated sources, the research articles used were limited to 8 years only, which includes some criteria:

1. Published between 2016 - 2023
2. Written in the English Language
3. With a focus only on Language learning, specifically English language learning
4. With a focus on the digital divide in urban and rural areas

Not included:

1. Not written in other than the English language
2. Studies with a focus on other theories of language learning except the role of technology
3. Studies with a focus on other contexts in urban and rural schools.
4. Studies with a focus on high school and higher education settings and subjects.

The selection of the articles used the PRISMA method. The process is described below:



Adapted from the PRISMA method with search progress in Google Scholar and education websites, the search term found along with characteristics are (n=357). It should have been included in the second search. Some of the studies with the same relevance decreased in the second step, which was found (n=201). The list of articles kept and rejected from the third step after being assessed in more detail by screening the title and abstract content was found (n=97). Thus, after skimming and scanning through articles, it was found that (n=25) of the articles were put in the list of literature reviews. The results of (n=26) articles were included in the list of literature reviews after adding (n=1) more articles based on references.

Results and Discussion

ICT in EFL Contexts

The teaching and learning process involves two active participations to achieve the classroom learning goals — teacher and learner. Other than the teacher-learner active participation, some critical points include teaching strategies and material, technology integration, learner motivations, and classroom/school facilities (Nur et al., 2021). One of the most important points discussed above is technology integration. The use of technology has been applied for years, but during the COVID-19 outbreak moment where the ICT implied most of the learning and teaching process with online teaching has become a new trend in achieving classroom goals online ways (Kusuma, 2022);(Sabiri, 2020).

(Jerry & Yunus, 2021) mentioned that The Emergence of the Fourth Industrial Revolutions (41R) had a priority discussion about how integrating technology and the learning process positively impacts stunts to face the innovative era. The current technology applied to students needs to develop for a better education revolution in many aspects, including language teaching. Maru et al., (2021) state that the technology applied resulted in more students being more actively speaking and attractive in language

learning. Technology for English language learning can allow students to learn English autonomously, increasing their English language development. Further, a study from (Azıonya & Nhedzı, 2021) mentioned that teachers have used computers and the internet as their primary media to teach language in the classroom in the last decade. This is because most governments and schools demand teachers to always be up to date, follow, and use technology fluently to adapt to the changes of the decades. Since 1997, Indonesian government education has informed us how ICT can be the concentration and potential for future experiences.

ICT in language and teaching can be divided into two types: non-web-based learning and web-based learning. This type of ICT can be used depending on the teaching material used in the classroom. ICT has been proven to deliver language learning in a fun way, but it is also possible for skill development (Alkamel & Chouthaiwale, 2018). Non-web-based learning is based on tools that need to be used for learning, such as Radio, television, films, and smartphones. Those technologies for language learning can enhance students' listening and communication skills with the audio-visual stimulation from the display. Godwin-Jones, (2017) mentioned how smartphones can be used for situated learning, which can exist and enhance students' care of language problems in real-world problems.

On the other hand, web-based learning is often called technology for distance learning or online learning because of the flexibility in processing the learning and teaching. Thousands of web-based learning have positively impacted English language skills. A study by Muhammad et al., (2023) discussed how ICT/Technologies were evaluated yearly to achieve learning goals and language skills. Audiobooks are one of the fastest technology and teaching tools, which can be included as web-based learning with applications. He added that audiobooks can enhance students' listening and speaking skills. Focusing on improving students' listening skills can develop some other skills like reading capabilities, vocabulary, independent learning, and many others. Based on the result of the study, it was adequate to use audiobooks as learning tools rather than traditional tools. Again, a study showed that one type of web-based learning, called Moodle-based learning, which can be used in primary school, can help teachers gain students' attention in the classroom.

In the short term, teachers have used many technologies to teach students to learn the English language, which is related to the results of the Katemba (2021) study. Additional results of the survey mentioned how the implementation of ICT in English language teaching and learning gives meaningful classroom experiences for both — students and teachers. From the students' findings, 93% of teachers strongly agree that technologies/ICT helps them to increase students' and teachers' knowledge and language skills, 84% of students agree that technologies/ICT can be used as their instructional media and tools of language individual learning, and almost 70% of teachers used ICT/technologies not only for teaching and learning language in the classroom but also for teacher daily life.

A Khodabandelo study (2016) stated the complexities of learning and teaching language, especially in English. Teachers can use and utilise technology in the learning process to make such complexity easier and more well-applied for students. The noticeable impact on the quality of teaching material also increased when teachers used technology and the internet as references. He also mentioned how the modern classroom environment in English language learning has changed many students' and teachers' perspectives on the learning process.

Some barriers affect both teachers and students. A study from Moshood et al., (2020) explains that some complexities are based on social contexts. Technology plays a significant role in achieving learning goals and improving individual learning, but not everyone can afford access. Therefore, it is called social contexts. Further, a study from Maru et al., (2021) also states that ICT/Technology integration can motivate learners to participate more actively in English language learning practices. The findings showed that the result was balanced in particular ways. Initially, students were encouraged but became less motivated as time passed. They were pleased when they wanted to experience digital learning but often got distracted by social media if they could keep focusing on the learning process (Nurjannah & Akbar, 2023).

Other than how ICT/Technology can improve the development of language skills. The benefit of technology integration has been paid much attention to in education contexts. The benefit can greatly enhance language classroom experiences (Moshood et al., 2020; (Haryanto, Weda, & Nashruddin, 2018). Some advantages of implementing technologies are improving learning engagement, knowledge retention, and student learning (Henderson, 2020; Sabiri, 2020). Youssef et al. (2022) added that the powering of ICT can easily maintain and improve students' participation and skills in technology learning. The study introduces the difference in the quantity of technology used since 1950 in English learning. He added that the translation and English teaching mentors in 1950 still used chalkboard support and the cassette to deliver English material. Still, with the changes in communicative technology, we can have YouTube, audiobooks, and E-books to support students' learning experiences (Lobarkhon et al. Uzbek, 2021).

Despite the attempts of ICT to improve the quality of teaching and learning, the teacher's role during the classroom process is vital. Lack of capacity and information for the teacher also becomes the most prominent problem teachers face. The need for technological competencies for teachers reduces the effectiveness of language teaching and learning. Henderson (2020) mentioned that teachers' lack of ICT skills is a severe obstacle in the classroom. They should have technology skills and be able to use it. It mostly happened to the old teachers who sometimes did not understand technology, so there was no interaction and implementation using technology inside the classroom (Maru et al., 2021; Ratih et al., 2019).

Indonesians have been facing some issues with the area, which makes it difficult to conduct some of the technologies; the area is called a rural area. From a geographic perspective, a rural area is located far away from the city, which makes the cities' development in terms of health, water, education, and other facilities less than the average

percentage. Indonesia is one of the countries with schools in rural areas because, based on the data, Indonesia still has some areas that people need help to reach. Some schools in rural areas had difficulties applying technology because of the limited facilities.

Unfortunately, ICT and the internet can deliver change for students during the teaching process. Studies showed that implementing ICTs in rural areas gives students and teachers new resources and improves the effectiveness of learning outcomes (Hasin & M Nasir, 2021; Zul et al., 2020). On the other hand, the government still struggles to implement ICT. We can see from the rural situation, which did not have technology in the class. The result is less satisfying and unresponsive compared to the schools in urban areas (Aruleba & Jere, 2022). Other than the lack of technology, the main problem is that rural teachers most likely need to receive adequate training and teaching skills. The increase of ICT has the excellent potential for rural communities to exchange past points of view, have a more leisurely life, and have sound education development if they can maximise the training of teachers index to perform using technology during the teaching process (Davies, 2021).

In comparison, the benefits and some challenges between urban and rural schools are mostly similar. They had the main obstacles when discussing the teacher's role and technology facilities. Some urban and rural schools still need help with the government's facilities, and the teachers need more technology skills (Champa, Rochsantiningsih, & Kristiana, 2021). However, some of the studies mentioned the same result when they compared the implementation of rural and urban schools. Although they both have positive awareness about the technology, regarding the frequency of teaching and student delivery, teachers in urban areas had significantly better experiences and performances than those in rural schools (Fitriana & Purnamasari, 2021).

The Digital divide between rural and urban in the EFL Context

The term digital divide developed in the mid-1990s in the United States. It was first published by the US Department of Commerce's National Telecommunication and Information Administration in 1999, which caused much confusion in the use of technology (Van Dijk, 2017). Access to technology adaptation in that era was minimal for many people, especially students and teachers. In the meantime, the nature of the digital divide has been discussed as theoretically descriptive, especially in some rural areas that lack digital access characteristics (Ariansyah, Anandhita, & Sari, 2019); (Kuputri, 2020). For some reason, the main conditions of the digital divide have only focused on technology and internet use. The bottom line is that the digital divide is a new challenge for social and world aspects, specifically in education, which already relies on technology and digital use and almost happens in rural areas.

Generally, a rural area is located outside the towns and cities and has few people. From a geographic perspective, a rural area is located far away from the city, which makes the cities' development in terms of health, water, education, and other facilities less than the average percentage. Indonesia is one of the countries that have schools located in rural areas because, based on the data, Indonesia still has some areas that people cannot reach easily (Vito et al., 2020). Meanwhile, Welsh and Swain (2020) define urban areas in

education contexts based on the geographical standards of the countries. Urban area addresses different definitions in some contexts, but in the short term, urban refers to a region often surrounded by cities, capturing towns and even suburbs. The urban education system is described as more organised because the updated system and technology are applied continuously.

Rural transformation has been constantly discussed and has become Indonesia's top development government priority (SUDARYANTO et al., 2023; Zul et al., 2020). For two decades, Indonesia has been working on the progress of rural transformation to an urbanisation system. Most factors indicated the change from rural to urban transformation, such as economic shift, education development, and health priorities. One of the essential things in rural transformation is how digital globalisation can adapt maximally since the biggest problem facing rural areas is technology (Maji & Laha, 2022). The transitions during the changes from rural to urban suggest the improvement of technology and the internet to see the opportunities for rural digital progress. Despite all the advancements, Indonesia still faces issues of the digital divide (Zul et al., 2020).

The digital divide can be caused by the inequality of the internet and the use of technology in some areas. However, in the survey conducted by APJII (Indonesia Internet Service Provider Association) in 2023, there was a gap in the contribution of using the internet between urban and rural areas, 64,57% for urban and 35,43% for rural. It shows that although the development of ICT in rural areas has been working for this decade, we must acknowledge the gap between internet use in urban and rural areas. Saputra et al. (2023) added that the importance of ICT in a rural area, which can be the main reason the government should optimise Information and communication technology in rural areas are (1) economic growth, (2) Public services access, (3) education and knowledge sharing, (4) reduce the social inequality, and (5) ICT role in the society. The transition from rural to urban development suggests improving technology and the internet to see the opportunities for rural digital progress. Digitalisation issues in rural areas are expected to open various opportunities for rural economic development, work opportunities, trade, flow of goods, conveniences, and access to modern lifestyles (Kormos, 2018).

(Azıonya & Nhedzı, 2021) also added how the digital divide in education contexts refers to the gap of access and inequity; they mentioned that the associated inequities can be a form of (1) inadequate access to use technology, (2) no internet as information of literacy skills to seek and search facts and evaluate information, and (3) the gap of technology used according to socio-economic status. Previous studies found that rural districts face financial barriers as the main reason the area is called a rural area. It says rural schools are more likely to face financial difficulties in handling all the expenses of technology, internet, and electricity (Yan, 2021). These studies also revealed how teachers and students in rural areas needed more knowledge about technology using the internet to search for more information.

The gap in quality and system of education between rural and urban areas is in contrast. This issue already become a mandatory issue that always comes up every year in the education context. The government still needs to work on minimising the gap in

the quality of teaching in rural areas. Some factors that indicate the contrast gap are teachers' availability, teaching facility, teaching strategies quality, technology use, etc. (Wang et al., 2019). It is related to Zul Fahmi and Destila Sari's (2020) study, which mentioned the digital divide he found in one of the cities with a low average and agricultural, rural areas located a short distance from the public cities, called Kaliabu. The close distance between the location and public cities does not allow the government to change and improve the reality of digital divide access. He also mentioned how the poor infrastructure can affect their education system. In line with what Wilantika et al. (2018) discussed, 20 provinces with low and medium digital divide rates cannot decide only on the distance locations.

From general perspectives and opinions, learning and teaching English in Indonesia is challenging for teachers and schools. We need more strategies for learning a language we have not become familiar with since birth. Therefore, maximising teachers' strategies competency and effective learning media with the efficiency of technology are used to teach the English language in the classroom successfully. Otherwise, most schools in rural areas lack teachers, and technology makes English language learning more complex than in urban schools (Onitsuka et al., 2018). In addition, a study by (Fadilah, Ayudhia, Pratama, & Harmawan, 2023) explained how English education in rural areas seems less effective than in urban areas. Several factors are causing this, both external and internal. The first is the minimum school facilities. Some English teaching and learning materials need portable sound, LCD, and laptop for listening activities and an English laboratory for speaking activities. The references to English activity in rural areas are primarily based on textbooks only. Some of the teachers had already maximised their use of textbooks, but the result was still the same. The only material that can be used is textbooks for vocabulary learning. The lack of English skills in teachers' capability is why learning and teaching in rural areas seem behind. The small teachers' salaries, less training, and the fact that they are far from the urban city are why most teachers do not want to teach in rural areas.

Other than that, technology also held the most challenges in teaching English in rural areas. (Rais & Kristiawan, 2022) They have mentioned some English preservice teachers' perspectives regarding the use of technology in rural areas. All teachers mentioned they never experienced the use of technology in the classroom. This is because the state's electricity and internet connection did not cover the school, which is essential for the students and teachers. The inadequate facilities for English learning teaching in terms of technology are low. One of the teachers from junior high school mentioned that one area in the village supports the public internet area, which can be used by many people in many ways. Some preservice teachers will probably use it to download their material, which can be shown in the classroom. They explained that it is one of the ways to conduct and maximise the use of technology in the classroom.

Living in this decade with the developed technology integration, it is easier when mobile can approach every access of life aspects (Narmamatovich Shaturaev, 2022). Some schools in urban areas might be familiar with the MALL (Mobile Assisted

Language Learning) methods to improve students' vocabulary in English learning. However, rural schools have different conditions. (Azıonya & Nhedzı, 2021) used the MALL (Mobile Assisted Language Learning) method in one of the rural schools in Indonesia to research and apply it. The challenges happened when most of the learning was done in traditional ways, and they wanted to change into a mobile system. At first, the teachers still needed more training, and the students were shocked and confused about learning it, but as time passed, both students and teacher had a great understanding, although they might still need extra time to develop the methods. The result showed that students significantly changed English language learning, especially vocabulary terms.

In line with (Godwin-Jones, 2017; Puspitasari & Ishii, 2016), smartphones and the digital divide. The reflection of the digital divide in Indonesia is developing. Every person of all ages, old and young, needs a smartphone. On the other hand, the feature phone also depends on their income level. Students in urban areas mostly have mobile phones/smartphones to communicate and use ICT to learn a language, but it is still something new for students in rural areas. Society would instead utilise the economy to live rather than use smartphones for their children. Therefore, most students need to start using smartphones, which shows more of the digital divide between students in urban and rural areas. It is shown from their 2019-2020 percentage rate of providing broadband access and technology in rural areas only from 6% to 52%.

Conclusion

This current study reviewed some of the previous studies that discussed the implementation of ICT in EFL Contexts between rural and urban schools and the digital divide access that happens between rural and urban schools. Since 1997, Indonesian government education has informed us about how ICT can be concentrated and the potential for future experiences. It demonstrated how important ICT is for students. Unfortunately, ICT and the internet can deliver change for students during the teaching process. Indonesians have been facing issues with the area, making it difficult to conduct some technologies; the area is called a rural area, often called the digital divide. The digital divide has been a topic of discussion for decades. The digital divide in education contexts refers to the gap between some access and inequity; she mentioned the associated inequities can be a form of (1) inadequate access to technology, (2) no internet information or literacy skills to seek and search facts and evaluate information, and (3) the gap of technology use according to socio-economic status. More research must be conducted on the gap between urban and rural schools.

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