

CHAPTER I

INTRODUCTION

1.1 Research Background

English has been acknowledged as a global language. It serves as the official language for many countries where native speakers communicate, and it is also considered a second language for many other nations. Over the past few decades, English has become a crucial foreign language worldwide. It has evolved into an international communication language across various sectors, including science, technology, trade, and literature. It has developed into a "lingua franca" due to its omnipresence and influence (Seidlhofer, 2004). Speaking or communicating in English has become a global aspiration due to its esteemed status.

In Indonesia, learning English is mandatory for high school and college subjects. In addition, according to Decree No. 060/U/1993 of the Minister of Education and Culture, dated February 25, 1993, English can be incorporated into primary schools as a subject with local content, starting from the fourth grade (Zulkifli, 2014). Although English education in Indonesian primary schools varies according to educational policies, students must learn English using prescribed materials. One crucial skill students need to learn is pronouncing English words correctly. Good pronunciation is crucial because it helps them speak clearly and express themselves well. It involves understanding the sounds of the language and how to produce them. Moreover, correct pronunciation makes communication in English more efficient and understandable. Therefore, pronouncing words in English can be one of the biggest challenges in the learning process. Since English Language is not their native language, speaking it fluently can be difficult, and many students continue to find it challenging. These difficulties vary from student to student, but the pronunciation of English words is often the most common challenge. Students still need help pronouncing English vocabulary when reading and speaking, which poses significant problems as pronunciation is a fundamental aspect of language proficiency (Gilakjani, 2016).

Meanwhile, the learning objectives in the context of English are to help students understand and use various methods of data analysis correctly (Irawan et al., 2020). Although achieving these goals may seem straightforward, the reality is different. Due to various factors, existing digital language learning facilities have yet to be utilized optimally. Most teachers still prefer traditional teaching methods, ignoring the innovative potential of websites and applications on smartphones and computers. Despite the inherently more engaging and innovative nature of these new media, their usage still needs to be improved. This perspective may be related to a need for more understanding or reluctance to adopt new technology in education. Therefore, expanding the scope of more modern and effective teaching methods is necessary to ensure that students can fully enjoy and benefit from the English language learning process.

In line with the need for modern and effective teaching methods, the Indonesian government introduced a new curriculum known as the "Kurikulum Merdeka" (Emancipated Curriculum). This curriculum is designed as a more flexible framework, emphasizing essential content, character development, and student competence (Miftakhuddin et al., 2022). Kurikulum Merdeka highlights three main characteristics: project-based learning, a focus on essential content, and flexibility for teachers to implement differentiated learning according to students' abilities. Project-based learning aims to develop soft skills and personality that align with the Pancasila student profile (Miftakhuddin et al., 2022).

The implementation of the Independent Curriculum is carried out through three categories: Independent Learning, Independent Changes, and Independent Sharing. Although implementation in primary schools has been optimal, there are still constraints and shortcomings in the teaching-learning process (Rahayu et al., 2022). Amid these challenges, the integration of technology becomes a key factor in the execution of *Kurikulum Merdeka* (Suweta, 2023). Online learning and technology-based approaches are integral parts of the strategy to support diverse and flexible learning (Rahayu et al., 2022).

The importance of utilizing technology, especially Information and Communication Technology (ICT), forms the primary foundation for creating meaningful learning. In efforts to support innovative teaching-learning processes,

Kurikulum Merdeka recognizes the central role of technology, directing teachers to unleash creativity in choosing learning tools that align with students' development (Juhriyansyah, 2020). The advancement of technology, particularly digital products like e-books, signifies a shift from dependence on print books to more flexible and interactive learning resources (Nurdyansyah, 2017). In this view, technology not only serves as a learning aid in the classroom but also allows access to learning resources from anywhere with internet connectivity (Atmawarni, 2016). The use of electronic media and digital learning resources expands the learning space beyond the classroom, supporting *Kurikulum Merdeka's* emphasis on active and inclusive learning (Mukminan, 2012). The Ministry of Education and Culture emphasizes efforts to improve education quality by recognising technology's role in supporting creative and educative learning.

In line with the vision of *Kurikulum Merdeka*, teachers are not only given the freedom to create educational and enjoyable learning but also become the main drivers in planning, implementing, evaluating, and ensuring follow-up from learning assessments (Risyad, 2021). The concept of active, innovative, and comfortable learning requires teachers to be facilitators, shaping students with critical, creative, communicative, collaborative, and character skills in line with contemporary demands (Etistika et al., 2016). The integration of technology with *Kurikulum Merdeka* creates an adaptive and responsive learning environment, accommodating student diversity and preparing them for the complexities and dynamics of the future (Hasriadi, 2022). Thus, technology utilization in the context of *Kurikulum Merdeka* is not just about empowering students and teachers but also opens opportunities to comprehensively enhance education quality.

Technology is now a helpful tool to help students' classroom speaking skills. It is crucial in speaking classes for teaching English as a foreign language (Sosas, 2021). Hong's (2006) study suggests that computer-mediated communication in pronunciation and conversation classes was initially intended to improve students' oral skills. Furthermore, videoconferencing applications are essential computer-based communication tools to promote fluency and accuracy (Sosas, 2021). The use of technology in speaking classes has several positive outcomes for learners. According to Dewi (2019), incorporating technology into speaking lessons

enhances students' fluency, coherence, vocabulary, grammatical range, accuracy, and pronunciation.

Technological progress has brought forth various opportunities in the field of education. An emerging trend in educational technology is Mobile-Assisted Language Learning (MALL), where mobile devices are utilized to aid in language learning (Hussain, 2017). MALL, defined as technology on personal devices (Godwin, 2011), emphasizes mobility, enabling easy and flexible access (Godwin, 2011). Research by Zhang and Zou (2020) illustrates how MALL facilitates automatic and independent learning among students, aiding them in developing language skills according to their needs. Consequently, MALL is a practical form of technology that substantially benefits language instruction.

Although many studies highlight the advantages of MALL in language teaching, Persson and Nouri's (2018) research shows that only certain types of MALL have proven effective in language learning. The study revealed that most MALL solutions focus on only one or two skills, such as reading, listening, writing, or speaking. Challenges arise when researchers seek to explore further sub-skills, particularly in pronunciation. Research on pronunciation reveals that English as a Foreign Language (EFL) learners face various challenges. There is a demand for Mobile Assisted Language Learning (MALL) solutions designed to help students improve their pronunciation skills.

One of the MALL applications that stands out is the CAKE Application. Many studies have discussed the benefits of using this application in language learning, especially in improving students' pronunciation skills (Fitria et al., 2021). Research by Anggaraini (2022) also indicates improvements in students' pronunciation skills after using the CAKE Application. The CAKE application provides learning media in the form of short video clips in English taken from various sources, such as cartoons, TV shows, and YouTube videos, which are packaged interestingly and attractively. (Momeni, 2022). Developed by the Playlist Corporation, a South Korean company, in 2018, the CAKE Application employs artificial intelligence (AI) and voice recognition technology to enhance English speaking skill (Fitria et al., 2021). With its voice recognition technology, the CAKE Application assists users in refining their English pronunciation. Additionally, the

app offers a wide array of lessons and topics for users to practice pronunciation, ranging from word phrases to complete sentences in English. Another notable feature the CAKE Application provides is an interactive dictionary, aiding users in pronouncing words or phrases.

The use of technology in the context of *Kurikulum Merdeka* and the assessment of the quality of learning technology highlight technology's central role in transforming the dynamics of modern education (Widiyono et al., 2020). The use of technology is not only the key to creating meaningful and relevant learning according to student's needs but also significantly contributes to improving learning quality. In *Kurikulum Merdeka*, which emphasizes teachers' freedom in choosing learning tools, technology becomes a tool that enables the development of creative, enjoyable, and student-oriented learning.

It is important to recognize that adopting technology in learning is not just about using technology deeply but also about assessing its quality. Miller (2013) emphasizes that the assessment of learning technology quality plays a crucial role in providing a systematic overview of how technology enhances student learning quality. This assessment not only provides information to teachers about the effectiveness of learning but also plays a crucial role in maintaining educational professionalism and enhancing student motivation.

The Triple-E Framework is an important tool for evaluating the effectiveness of technology use for learning goals. Professor Liz Kolb of the University of Michigan School of Education developed this framework in 2011 (Kolb, 2019). It measures how technological relationships can enhance teaching and learning goals. This framework is precious for research on technology-based learning because it emphasizes achieving learning objectives rather than merely using specific technological tools. The Triple-E Framework highlights three key components: Engagement, Enhancement, and Extension of learning goals. Supported by educational research and proven reliable, the Triple-E Framework is an excellent resource for educators aiming to thoughtfully select and assess technology to support their educational objectives effectively.

This assessment not only measures how much technology can benefit student learning but also provides an opportunity for teachers to continue developing their

professionalism (Hasriadi, 2022). Information about the quality of learning technology forms the basis for designing optimal learning experiences that positively impact student achievement and outcomes. Therefore, the right alignment between technology and learning conditions in *Kurikulum Merdeka* is not just a necessity but a must to achieve desired learning goals and ensure that educational evolution reflects contemporary demands.

Several studies have assessed the effectiveness of using the CAKE Application to enhance students' English speaking skills. For instance, a 2021 study titled "The Implementation of CAKE Application in Improving English Speaking Skills" demonstrated significant positive outcomes on the English language proficiency of 9th-grade junior high school students (Fitria et al., 2021). In other words, using CAKE significantly improved students' English-speaking abilities. Moreover, a study by Anggaraini in 2022 affirmed the efficacy of CAKE in enhancing English language proficiency among students at SMA N 1 Balong Ponorogo. Anggaraini observed that successfully integrating the CAKE Application positively impacted students' pronunciation skills and learning motivation. This application provides an interactive platform that engages students in practicing pronunciation improving accuracy, intonation, and rhythm when speaking English. Moreover, easy access to pronunciation exercises through the CAKE mobile app anytime, anywhere provides additional incentives for students to improve their English language skills continually. Therefore, research indicates that CAKE is a highly effective tool that aids students in improving their English-speaking skills using an interactive and engaging method.

Although some studies have emphasized the advantages of using the CAKE Application to enhance English-speaking skills, additional research is necessary to fill this gap. Understanding the implementation challenges of the CAKE Application in educational settings requires a comparison with traditional teaching methods. Furthermore, assessing how effectively this technology helps achieve specific learning objectives in various contexts is essential. Therefore, further investigation into using the CAKE Application to improve students' speaking skills in English language learning is warranted.

Based on the conducted observations, the selection of SD N 1 Baktiseraga as the research subject is a well-considered decision, emphasizing the relevance and significance of this research in the context of implementing technology-based learning media. This decision is based on the fact that this school has adopted *Kurikulum Merdeka* in all grade levels, providing a solid foundation for analyzing the impact and effectiveness of using technology as a learning medium, especially in the context of English language learning in primary schools.

The sixth-grade level was intentionally chosen as it represents the final stage of primary education, where students are expected to have a mature understanding of English-speaking skills. This decision is crucial to evaluate the extent to which the use of technology-based learning media, such as the CAKE Application, can prepare students for higher levels of education with adequate English language skills. Focusing on the aspect of speaking skills is also based on initial observations indicating that this area requires special attention. Thus, this research not only provides a general overview of the implementation of the CAKE Application in English language learning but also details specific challenges faced by students and teachers in developing English-speaking skills.

This research involves sixth-grade students at SDN 1 Baktiseraga, aiming to fill gaps in previous research by reexamining the same phenomenon at the primary school level. Thus, SDN 1 Baktiseraga was chosen as the focus of the research to contribute to our understanding of the implementation of independent learning curricula, the level of motivation, and English language learning abilities of sixth-grade students, as well as potential solutions through the use of educational technology, specifically the "CAKE Application."

This study aims to investigate the influence of the CAKE Application on enhancing students' speaking skills and to assess its effectiveness in English language acquisition. The findings are anticipated to offer valuable insights into how technology can improve speaking abilities, particularly among sixth-grade students at SDN 1 Baktiseraga. By leveraging this innovative educational tool, the CAKE Application has the potential to address language learning challenges in today's globalized and technologically advanced era.

This research applies the Triple E framework to assess the CAKE Application's impact on students' speaking skills. The Triple E framework prioritizes achieving student learning objectives as a criterion for evaluating technology effectiveness. Thus, the study focuses on how the application aids students in reaching their language learning goals and enhancing their motivation to learn to speak English. This research aims to provide insights into integrating technology into English language education at SDN 1 Baktiseraga by addressing existing knowledge gaps. Ultimately, it aims to enhance understanding of the efficacy of implementing the CAKE Application to improve students' speaking proficiency at the school.

1.2 Problem Identification of Study

Based on initial observations carried out at SD N 1 Baktiseraga, it was discovered that the pre-test results of students' abilities were below the school's minimum completeness criteria (KKM), which was set at 60—analysis of the pre-test results. The test results revealed that only 20% of students achieved a passing score, while 80% still needed to meet the minimum passing grade. This highlights significant issues in the current learning process, possibly stemming from ineffective teaching methods, insufficient student engagement, and inadequate facilities and infrastructure. Moreover, the low scores on the pre-test indicate that many students need to grasp the taught material adequately, necessitating more intensive efforts to enhance learning quality and improve student outcomes.

This research is conducted in response to an ongoing phenomenon where conventional English language learning has yet to yield significant results in improving students' speaking abilities. It is crucial to implement appropriate English language teaching methods to address this issue, especially for young learners. The researcher refers to previous research by Ratminingsih & Budasi (2018) that showed the benefits of introducing English from an early age to enhance students' speaking abilities. In this context, the research aims to apply technology in instructional media using the CAKE Application to improve students' English-speaking skills. The CAKE Application offers an interactive, engaging, and effective solution that helps students hone their English language skills while motivating them to continue learning and practicing independently. By leveraging

innovative educational technology, the CAKE Application positively contributes to addressing language learning challenges in the current era of globalization and the ongoing information technology revolution.

This study identifies several research gaps that require further attention regarding the effectiveness of using the CAKE Application to enhance English speaking skills. The research seeks to fill these gaps by reexamining the same phenomenon at the elementary school level. Thus, SD N 1 Baktiseraga was chosen as the research focus on contributing to our understanding of the implementation of self-directed learning curriculum, student's motivation, and learning abilities at the sixth-grade level, as well as potential solutions through the use of educational technology such as the "CAKE Application."

First, there is a need for a comprehensive comparison between the use of the CAKE Application and conventional teaching methods or other English language learning applications (Wilson & Sutrisno, 2022). This comparison will provide a deeper understanding of the strengths and weaknesses of using the CAKE Application in the context of learning. Furthermore, research should focus more on specific features or techniques within the CAKE Application that are most effective in improving students' speaking abilities (Pulungan & Siregar, 2020). This will aid in implementing the CAKE Application as an instructional tool and developing more effective features within the application.

Moreover, the research needs to identify the implementation challenges of the CAKE Application, to what extent it contributes to achieving students' learning goals, and how these barriers can be overcome (Chaniago, 2022). By understanding these research gaps, further research can significantly contribute to optimizing the use of the CAKE Application and similar technologies in English language learning.

1.3 Limitation of Study

Given the limitations in terms of time and resources for this research, the authors have directed their attention toward exploring innovative teaching approaches. This approach involves utilizing the CAKE AI-based app as an educational platform to impart English pronunciation and speaking skills to sixth-grade students at SDN 1 Baktiseraga.

1.4 Research Questions

Drawing from the elaborated background, the author presents several formulated research inquiries that warrant exploration:

1. Can CAKE Application improve the speaking pronunciation of 6th grade at SDN 1 Baktiseraga?
2. How do teacher integrate CAKE Application viewed from triple E framework?
3. How do of 6th students at SDN 1 Baktiseraga extends the use of CAKE Application outside the classroom?

1.5 Objectives of the Study

Aligned with the research inquiries posed by the author, this study aims to achieve the following objectives:

1. To assess the effectiveness of the CAKE Application in improving the pronunciation skills of 6th-grade students at SDN 1 Baktiseraga.
2. To identify and analyze the integration of the CAKE Application by teacher based on the Triple E Framework.
3. To examine how 6th-grade students at SDN 1 Baktiseraga extend the use of the CAKE Application outside the classroom and its impact on their learning.

1.6 Significances of the Study

This research aims to provide theoretical and practical insights into teaching English language and students' learning processes through technology-based media learning. The author aims to contribute substantially to this field in theory and practice.

1.6.1 Theoretical Significance

This research significantly advances innovative technology-based learning, particularly within English language education. By delving deeper into students' perceptions and attitudes towards the AI-driven CAKE Application, this study enhances the understanding of the effectiveness of technology

integration in the learning process. Furthermore, it offers insights into practical methods and strategies for harnessing AI-based learning applications to enhance language speaking skills pronunciation. The outcomes of this research can serve as a guiding framework for educators and language instructors in designing more captivating, interactive, and contextually relevant learning experiences tailored to students' needs. By comprehending students' perceptions and motivation regarding using the CAKE Application, this study provides insights into the factors influencing student engagement in technology-driven learning, thereby aiding in creating a supportive and motivating learning environment that encourages active student participation.

1.6.2 Practical Significance

Practically, this research was carried out in order to make a valuable contribution to students, English teachers, and other researchers.

a) Students:

This research holds broad practical significance for language learners across various levels and educational settings. By embracing innovative technology-based teaching methods like the CAKE Application, learners can experience more interactive, engaging, and effective language learning encounters. This application can assist in enhancing speaking abilities and fortifying overall communication skills. Moreover, the presence of technology-based learning apps offers learners the flexibility to practice language anytime and anywhere, thus enhancing the accessibility of language learning. Students can participate without being constrained by time and place limitations. The ability to adjust the learning pace according to individual comprehension levels and needs can also boost learning efficiency for learners.

b) English Teachers:

This research provides insights into implementing innovative technology-based teaching methods for English educators. Learning applications like CAKE can help teachers create more captivating and

relevant learning experiences for students. Consequently, technology can amplify student engagement in language learning and foster a more positive learning experience. Furthermore, using technology-based applications enables teachers to gather data and analyze student learning progress more efficiently. This information can assist teachers in identifying individual student needs and devising appropriate teaching strategies, thereby enhancing the effectiveness of the teaching process.

c) Future Research:

While this research contributes to the utilization of AI technology in language learning, future studies can explore other aspects of AI technology implementation across various educational domains. Subsequent research could examine the use of AI technology in language learning beyond English and explore the application of AI in other academic disciplines and skills. Moreover, research development can broaden the sample scope and geographical regions, providing a more comprehensive overview of the effectiveness and applicability of AI-based learning technology. By involving a diverse range of respondents from various backgrounds, research can offer a more representative insight into the benefits and challenges of using AI learning applications. Future research could also explore how AI technology can enhance social and collaborative interactions in language learning. Developing AI-based applications that promote student cooperation and discussions could be an intriguing field of study to support effective and inclusive language learning in diverse educational contexts.

1.7 Definition of Key Terms

1.7.1 Innovative Learning

a. Conceptual definition

Innovative learning refers to an approach or method of education that combines technology, creativity, and new strategies to enhance the

effectiveness and appeal of the learning process. Innovative learning aims to address the challenges of the digital and globalized era, where knowledge and skills in the technology field are highly relevant to adapt to ongoing changes in the world today.

b. Operational Definition

This study defines innovative learning as integrating technology, creativity, and novel approaches in language education. Technology is exemplified using tools like the CAKE Application, creativity is demonstrated through diverse and engaging learning resources such as videos and podcasts, and new strategies are evident in student interactions during group discussions and participation in English-focused projects.

1.7.2 Speaking Skill

a. Conceptual definition

Speaking skills refer to one's ability to communicate orally in a particular language, encompassing clarity of expression, appropriate vocabulary usage, correct sentence structure, and fluency with confidence. According to Brown (2001), speaking is pivotal for students to convey ideas, engage with others, and actively participate in the educational process. In contemporary curricula emphasizing communication, speaking proficiency is a crucial aspect receiving significant attention from educators. Speaking skills not only affect verbal communication skills, but also the social, emotional, and cognitive development of students. By speaking, students can learn to convey their thoughts and feelings appropriately, understand other people's perspectives, and collaborate in teams.

b. Operational definition

In this research, speaking Skill is measured based on the following aspects: students' ability to communicate orally in English by expressing ideas clearly and accurately, using relevant vocabulary, organizing sentences correctly, and expressing themselves fluently and

confidently. The assessment of speaking Skills can be conducted by evaluating student conversations with native speakers or through conversation exercises based on the CAKE Application, which utilizes AI voice recognition technology to provide feedback on students' pronunciation and intonation.

1.7.3 CAKE Application

a. Conceptual definition

The CAKE Application (Communication App by Artificial Intelligence) is an innovative language learning application that leverages Artificial Intelligence (AI) technology to enhance students' speaking abilities in English. This application provides an interactive platform for language practice, including conversation simulations with native speakers and AI-based speech recognition, allowing students to receive instant feedback on their speaking abilities.

b. Operational definition

The CAKE Application is a learning tool accessible through Android or iOS devices. This application enables students to engage in conversation simulations with native speakers, practice English pronunciation using AI voice recognition technology, and access various English language learning materials such as videos and podcasts. The utilization of the CAKE Application is measured based on students' level of participation in conversation exercises, the number of learning materials accessed, and the extent of AI features utilized in student-app interactions.