



INNOVATIVE: Journal Of Social Science Research

Volume 4 Nomor 4 Tahun 2024 Page 6396-6409

E-ISSN 2807-4238 and P-ISSN 2807-4246

Website: <https://j-innovative.org/index.php/Innovative>

## Improving Hospitality 1 Class X Of SMK Negeri 1 Sawan Students' Pronunciation Skills With The Cake Application

I Wayan Gega Mas Utama<sup>✉</sup>

Undiksha University

Email: [gepa@undiksha.ac.id](mailto:gepa@undiksha.ac.id)<sup>✉</sup>

### Abstrak

Di era perkembangan teknologi saat ini, banyak sekali aplikasi belajar bahasa Inggris yang tersedia dan salah satunya adalah aplikasi Cake. Penelitian ini mengeksplorasi dampak penggunaan aplikasi Cake, sebuah teknologi digital yang berfokus pada keterampilan berbicara terhadap pembelajaran bahasa Inggris. Mengambil model Penelitian Tindakan Kelas (PTK) yang berlangsung selama dua siklus, penelitian ini melibatkan siswa kelas sepuluh di SMK Negeri 1 Sawan dan bertujuan untuk meningkatkan keterampilan pengucapan siswa. Intervensi ini meliputi modul pembelajaran yang memasukkan aplikasi Cake ke dalam kegiatan pembelajaran yang berfokus pada keterampilan percakapan sehari-hari. Pengumpulan data meliputi pre-test dan post-test untuk mengukur peningkatan keterampilan pengucapan, melalui tes berbicara. Hasil yang ditunjukkan pada siklus I sudah menunjukkan sedikit peningkatan, dan pada siklus II dilaksanakan dengan melakukan beberapa penyesuaian pada modul pembelajaran sehingga para siswa berhasil menunjukkan peningkatan yang signifikan pada akhir siklus II. Hasil penelitian ini menunjukkan efektivitas penggunaan aplikasi digital khususnya aplikasi Cake dalam pendidikan bahasa Inggris.

Kata Kunci: *Cake; Pronunciation; PTK; Speaking.*

## Abstract

In this technological era, there are many English learning applications available and one of them is the Cake application. This research explores the impact of using the Cake application on English language learning. Taking the CAR model which lasted for two cycles, this research involved tenth grade students at SMK Negeri 1 Sawan and aimed to improve students' pronunciation skills. This intervention includes the use of the Cake application in learning activities that focus on daily conversation skills. Data collection includes pre-test and post-test to measure improvement in pronunciation skills, through speaking tests. The results shown in cycle I showed a slight improvement, and in cycle II it was carried out by making several adjustments so that students succeeded in showing significant improvement at the end of cycle II. The results of this research show the effectiveness of using digital applications, especially the Cake application in English language education.

Keyword: *Cake; CAR; Pronunciation; Speaking.*

## INTRODUCTION

Speaking ability especially English Language Education is one of the four language skills. Speaking is a great way for students to pass ideas, work with others and share teaching and learning work (Parmawati & Inayah, 2019). In modern curriculum about communication, the ability to speak is an important factor that need serious attention. When students speaks, not only influences speech communication, but also emotional development and cognitive development of students. When students learn to move their thoughts and feelings well, understand the vision of others and work with the group. In addition, speaking also helps students hone their critical and analytical thinking skills because they have to compose and present arguments or presentations logically and persuasively (Yassin, 2021).

Of all aspects of speaking, pronunciation is one of them. Pronunciation is the action or result of producing sounds that we use to give meaning in the speech of a language, which refers to the correctness of a vowel, sentence emphasis, word emphasis, consonants, and fluency (Wulan Agustina et al., 2021). Pronunciation is an important aspect of communication that stands as an important component in speaking any language, as efficient communication cannot be claimed without it. Based on these considerations if all of that elements are mastered, second language learners can speak like native speakers.

Based on the consideration that pronunciation is a way of saying the words of a language, integrated skills are needed by students who study English as a foreign language that is not used in society (Sinaga et al., 2023). There are various elements that need to be paid attention to because English pronunciation is very different from the speech system of the mother tongue (ethnicity) and Indonesian (Barnabas & Yukiarti, 2013). So to be understood as an English learner, all these elements must be studied properly.

In this digital technological developments era, there are many English learning applications AI based that already available. The definition of artificial intelligence according to Kusumadewi (2003) is that artificial intelligence is part of computing that allows machines (computers) to do the same things as humans. By integrating AI into education, it will open up new opportunities in improving the quality of the teaching and learning process (Hwang et al., 2020).

With so many advantages offered by AI, it is undeniable that these smart machines are starting to penetrate for use in the current education system. The introduction of artificial intelligence technology into education side allows educators to focus on the needs and requirements of students and improves teaching efficiency and quality of teachers (Tapalova & Zhiyenbayeva, 2022).

Teachers can design student learning activities or all other student needs easily using various forms of this smart machine. Using social networking sites and chat points in class helps teachers organize lessons, keep them available, increase student engagement, and save time. Personalized learning methods improve the quality of online learning and provide students with personalized learning materials and resources. It also facilitates interaction between students and teachers. The virtual learning environment provides an immersive environment for collaborative learning, interaction, data visualization, and real-time virtual feedback. (Chen et al., 2020).

Machine learning technologies enable educators to analyze large amounts of student data, create predictive models, monitor learning progress, and provide customized instruction to student needs, ensuring quality learning. From the (Tapalova & Zhiyenbayeva, 2022) study, the results show that the main benefit of AIED technology is the ability for educators to create learning paths that are tailored to the specific needs of students. Professional systems enable excellence in curriculum design, decision making, planning, monitoring, and collaboration to enhance educational effectiveness. Advisors and intelligent agents drive personalized learning paths based on student needs, preferences, and prior academic knowledge.

Of the many applications that can be used in the field of English Language Education, the Cake application is one that only focuses on improving speaking skills, so researchers hypothesize that this application will be suitable for dealing with the problems described previously. Most similar applications only focus on pronouns and grammar, but in this problem the researcher would try using the Cake application which focuses on speaking skills. Cake is an application developed and published by Cake Corporation, free and paid to unlock certain features based on the latest version of the application. Cake app features

include studying with video clips from movies, celebrities, vloggers and TV videos. There is also an artificial intelligence function which directly evaluates the user's correct pronunciation, selectable topics and activities, reviews what has been learned, the user's favourite daily expressions, various quizzes, etc. Because this is mobile phone application, Cake allow it to increase students' interest in learning because Cake applications can be used anywhere and are very easy to use. Where children now tend to rely on smartphones in their daily lives and Cake applications can be accessed with smartphones and can immediately learn to speak using this application. According to Cake Corp (2018) on their app site on Play store, Cake will help improve speaking skills with features: Watch videos with subtitles, and repeat after each line, user pronunciation will be checked by AI, practice speaking with unique conversation like real conversation from video clips (movies, celebrities, vloggers and tv), videos, learn step by step with 'classes' features, select a topic and learn step by step by language experts, repeat and revise, review using fun quizzes, save sentences liked to practice and repeat sentences and words of choiced, new phrases are added daily.

Various studies that have been carried out, especially in the field of implementing AI applications, focusing on several applications have shown good results. Like research from Handani, which examined duolingo by exploring student confidence and student activity which was analyzed using experimental design. Sudrajat's research on grammar applications explores the application's use of grammar knowledge. Research on the Google Classroom application has also been carried out by Fauziah by exploring its use by teachers in the classroom and its impact. All of the research above was carried out in the form of experimental research, namely by looking for causal relationships from an action and journal reviews, namely by comparing one journal with another to get new conclusions.

This research uses the CAR method which has the advantage of being able to improve and enhance the quality of learning and help empower teachers in solving learning problems in certain schools. CAR was chosen because as a teacher you need to develop and innovate learning so that the learning you do always seems new to students. With innovation, teacher professionalism can be increased through research conducted. Also it is already the teacher's duty to improve learning in the classroom.

Direct observations were also carried out in the field in this research. Observations were carried out using a framework that is very capable, especially in the field of applying digital technology to learning. The framework is the Triple-E Framework by Professor Liz Kolb at the University of Michigan School of Education (Kolb, 2011). The Triple-E Framework was created to address the desire of K-12 educators to bridge research on educational

technology and classroom teaching practices. The Triple E framework is designed to assess how effectively technology contributes to the attainment of student learning objectives in a course and design the best learning experiences so that the tool has a positive impact on student achievement and outcomes (Kolb, 2011).

## RESEARCH METHOD

This research employed classroom action research method. Depending on the level of success or the effect of the action, then steps has been taken to improve or adapt it according to the situation and circumstances. This is done with the hope of getting the best results in accordance with the main aim of this research which is to improve students' learning methods and skills, especially to improve students' English pronunciation skill. This study focuses on the level of students' pronunciation skills when using Cake in class and Cake's supporting factors to improve students' pronunciation skills when used in classes. This classroom action research passed at least two cycles with several phases in each cycle. These phases include: planning, action, observation, reflection

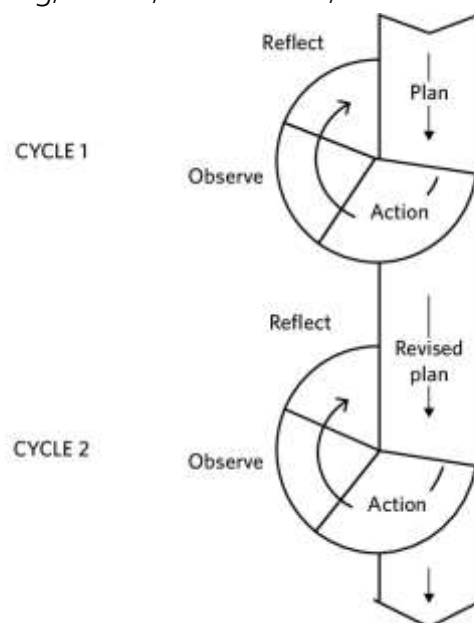


Figure 1. Cyclical CAR model based on Kemmis and Mc.Taggart (1988).

Planning phase is the phase after made observations during the observation phase, the researcher identified the problems found and made it a challenge to develop appropriate lesson plans using the Cake artificial intelligence application to involve overcoming these challenges, especially in the area of speaking skills.

Action phase is the phase where planning is carried out as planned. Researchers would take action on each student's behaviour and response to the learning process using a previously created learning plan.

Observe phase, in this observation process the researcher has been invite several colleagues to help record and observe the learning process in class to collect information and identify real problems in the field. Then interviewed the students in class regarding English learning in class.

Reflection phase is the phase after collected data during implementation, the researcher conducted a reflection process to evaluate the effectiveness of the lesson plan using the Cake artificial intelligence application. The collected data was analysed to assess the acquisition of students' pronunciation skills. Each phenomenon that exists at this value is explained as a central tendency measurement (mean, median, mode) and its deviation.

Reflection would not prove anything different, but it gave an idea of the answer. If the implementation does not produce the expected results, the researcher starts a new cycle from the design section. The most effective teaching design has been selected to answering the research questions. Teaching cycle 1 used one particular method, teaching cycle 2 used another method. Revised learning plan and presenting new ideas and innovations that can improve student learning outcomes from Cake artificial intelligence app.

Next, the teaching and learning process for students is carried out again in cycle 2 so that students are better prepared to face the cycle 2 test. The target of student success is if the student is able to meet the specified minimum score standard (KKM), namely 70. The results of this test are an important indicator regarding the impact and effectiveness of the educational methods used in this research.

The level of students' pronunciation when using Cake is discussed using quantitative descriptive statistical methods. According to (Sugiyono, 2013), explained that descriptive research is research conducted to determine the value of an independent variable, either one variable or more (independent) without making comparisons, or connecting with other variables. Descriptive statistics can be used if want to find the strength of the relationship between variables through correlation analysis, make predictions with regression analysis, and make comparisons by comparing the average sample data (Sutisna, 2020).

The data obtained from the speaking test using a Likert scale was first tabulated into a table which was then analysed using exel. In this research, the midpoint or mean is used as a tool to assess student performance when the Cake application is intervened. By analysing speaking test results, researchers can better understand and describe the level of progress of students' speaking skills. Every phenomenon obtained from statistical figures such as central tendency, dispersion, mode, median, mean is described according to conditions in the field. The description of the results of this integrated data analysis allows

researchers to understand the impact of implementing baking learning on students' speaking abilities and development in depth.

The test is carried out at the end of learning. In this study, the test method was based on a pronunciation test. This test is designed to assess students' pronunciation abilities after learning activities. Test data is obtained by conducting evaluations at the final of each cycle. The test is individual, meaning students have to work on the questions themselves. At the end of each cycle, an analysis was carried out to determine the weaknesses experienced during that cycle. The assessment elements in the speaking test is assessed vowels, sentence stress, syllables, consonants, and fluency that used a Likert scale, namely 5 value weights for each assessment element (Kelly 2000).

This research was conducted at SMK Negeri 1 Sawan which is located in Sawan, Buleleng, Bali. The selection of this school as a research location was based on considerations of accessibility and mutual support from school leaders. SMK Negeri 1 Sawan was chosen as the research location because it implements an independent curriculum in accordance with current conditions so it is suitable for implementing effective teaching methods using the Cake artificial intelligence application. The research is planned for the second semester of the 2023/2024 academic year. The research will go through several meetings divided into several cycles until satisfactory results are found. Where each cycle will include: planning, action, observation, reflection (Burns, 1999). The end of the research is at the "n" meeting, namely the meeting when satisfactory results have been obtained.

## RESULT AND DISCUSSION

Actions in this research began with conducting a pre-test. The pretest was carried out to obtain initial data as a reference in seeing changes in student learning outcomes regarding pronunciation skills. After carrying out the pretest, the result data was obtained. There were 29 students who attended the pretest and obtained the data as above. Descriptively, the smallest score was 32, the highest score was 56, with a middle score of 44, mean of 42,3448 and ended with a standard deviation of 7,522708.

### Cycle 1

First, the researcher prepared a learning plan in the form of a complete module with a flow of learning activities, learning materials, especially about personality and character, as well as questions for assessing students' pronunciation abilities to determine the development of students' pronunciation abilities later.

After the planning step is complete, start taking the next step, namely action. This action was carried out in two meetings, during which the researcher also invited two

colleagues to help in the assessment and observation process. The first meeting was held on January 24 2024 at 08.50-10.10 am. and the second meeting on the same day at 10.30-11.50 am.

At this meeting, before entering the learning material, the researcher began to introduce the cake application to students and instructed students to download it on their respective smartphones. Researchers explain the features and what students can do with the Cake application. After all students understand, then start to enter the learning material. Specifically, the researcher started by explaining the learning material that had been prepared, continued with students who studied independently using the Cake application on their smartphones, recording each one according to the learning material that had been instructed by the researcher, continued with practicing speaking skills using the role-play learning method by reading conversations. which already exists in the Cake application.

Next, at the second meeting, the researcher focused on carrying out assessments of students. Before the assessment is carried out, students are instructed to form groups of two each. Next, students will be given a dialogue text which they will then act out in front of the class with their partners. It was during this role-play that the research colleagues assessed students' pronunciation.

There were 29 students who attended the pretest and obtained the data as above. Descriptively, the smallest score was 44, the highest score was 64, with a middle score of 48, mean of 49,7931 and ended with a standard deviation of 3,7926594. Even though the results of the observations carried out showed good results, in every part of the student's activities that require using the Cake application, they show low scores. The students' speaking test scores also still did not show satisfactory results, and the researchers found several problems when implementing this application, such as:

- Students are still confused about understanding the teacher's instructions about how to use the CAKE application
- Low ability of students in all creteria of assessment (vowel, sentence stress, word stress, consonant, and fluency)
- All students have not reached the minimum standard score target (KKM)

## Cycle 2

The researcher revised the lesson plan based on student problems found in cycle one and make module modifications in cycle 2. Researchers prepare new teaching methods or module that will be used in the second cycle. Apart from that, in this cycle the researcher prepared a learning design, lesson plans and several instruments related to CAKE, including:

student attendance list, student score list and tests to measure student progress in learning pronunciation.

In this second cycle, researchers made modifications to the previous module to improvise the learning process using the Cake application. As before, the module is made complete with all supporting instruments such as the flow of learning activities, learning materials, and questions for assessing students' pronunciation abilities to determine the development of students' pronunciation abilities later.

In this second cycle, the modifications made by researchers included using new supporting equipment such as laptops and projectors. The purpose of using this projector screen is for researchers to display the Cake display and students can focus on one screen at the start of learning. This was done so that students were not too focused on their respective smartphones before the researcher gave instructions for independent study, they would first study together by paying attention to the projector screen. Activities included in this joint learning activity include starting questions, video introductions to material, examples, and practice questions available on the Cake application. Next, students will study independently by answering all the remaining questions in the application.

The use of the repetition drill technique is for improvisation. The repetition drill technique is a technique where students are asked to repeat the words of a sentence or one part of a particular sentence until they are as accurate as possible. The aim of using this technique is so that students have accurate pronunciation skills during dialogue. The questions for the pronunciation test are also created new according to the learning material used. The rest of the module is still the same as before, one of which is the use of role-play as a form of practice and pronunciation test.

After the planning step by making modifications to the previous cycle is complete, start taking the next step, namely action. This action was also carried out in two meetings, and the researcher also invited two colleagues to help in the assessment and observation process. The meeting was held on January 31 2024 at 08.50-10.10 am, and the second meeting on the same day at 10.30-11.50 am. The first meeting will still focus on learning materials and exercises and the second meeting will focus on assessing speaking, especially pronunciation.

After completing this cycle 2 stage, it can be seen that there has been an increase in students' pronunciation skills. Many students show improvement in their pronunciation skills and many have reached the minimum score standard (KKM). Even though there are still 8 students who have not reached the target minimum score standard (KKM), the researchers decided to end it until cycle 2 because these 8 students have shown significant improvement

even though they have not reached the target minimum score standard (KKM). The following are the results of a comparison of the results shown from the pre-test to cycle 2.

Table 1 Comparison of the results of the pre-test, cycle 1, cycle 2.

| No | Observation Result          | Pre-test | Cycle 1 | Cycle 2 |
|----|-----------------------------|----------|---------|---------|
| 1  | Number of students          | 29       | 29      | 29      |
| 2  | Maximum score               | 56       | 64      | 80      |
| 3  | Minimum Score               | 32       | 44      | 64      |
| 4  | Average score               | 42,34    | 49,79   | 71,5    |
| 5  | Students who passed KKM     | 0        | 0       | 21      |
| 6  | Students who not passed KKM | 29       | 29      | 8       |
| 8  | Indicator success           | 70       | 70      | 70      |

The data of the table show that the abilities of students class X Hospitality 1 SMK N 1 Sawan are far enough to achieve the expected targets. The pretest data is used as an initial benchmark for student abilities. So the next researcher carried out Cycle 1 with the hope that there would be an increase in students' pronunciation skills in this class.

Next, the first cycle was carried out where the Cake application began to be used as a learning medium. There have been several improvements from before, including the minimum score obtained, the maximum score, the average score has also increased from before. The standard deviation value has also decreased from before, which means the score gap has decreased compared to before. It can be said that students who previously had low abilities have been able to catch up with students with higher abilities. From all these changes it can be said that there is an improvement from the pre-test with cycle one.

Even though there has been an increase, the increase is not yet significant, with the value of the increase being still small, no one has reached the minimum score standart (KKM) target. Students are still confused about understanding the teacher's instructions about how to use the CAKE application. Students also has low ability in all creteria of assessment (vowel, sentence emphasis, syllables, consonants, and fluency). Based on consideration that result, the researcher decided that needed to make a modification to the module to make improvements in order to get a more significant increase in results.

Next, a second cycle was carried out where the use of the Cake application as a learning medium was adjusted again from cycle 1 with the hope that there would be a more significant improvement in cycle 2. In this second cycle, the modifications made by researchers included using new supporting equipment such as laptops and projectors. The

purpose of using this projector screen is for researchers to display the Cake display and students can focus on one screen at the start of learning. This was done so that students were not too focused on their respective smartphones before the researcher gave instructions for independent study, they would first study together by paying attention to the projector screen. Activities included in this joint learning activity include starting questions, video introductions to material, examples, and practice questions available on the Cake application. Next, students will study independently by answering all the remaining questions in the application.

The use of the repetition drill technique is for improvisation. The repetition drill technique is a technique where students are asked to repeat the words of a sentence or one part of a particular sentence until they are as accurate as possible. The aim of using this technique is so that students have accurate pronunciation skills during dialogue. The questions for the pronunciation test are also created new according to the learning material used. The rest of the module is still the same as before, one of which is the use of role-play as a form of practice and pronunciation test.

By making these modifications, students' maximum scores, minimum scores and average scores will improve their results. The number of the students who have achieved the minimum standard score (KKM) have also seen significant improvements. From the results of the data discussed above, it can be concluded that students have been able to achieve their learning targets. Even though there were eight students who had not yet reached the minimum score standard (KKM), they had shown significant results in the cycle 2 phase when compared to the pretest and cycle 2 phases. Based on these consideration, the researcher decided to stop this classroom action research process until cycle 2.

## CONCLUSION

This AI-based Cake English learning application can improve students' speaking skills, especially in class X Hospitality 1 SMK Negeri 1 Sawan. Paying attention to the research results described previously, English teachers can use the Cake application as a student learning medium. Especially when teaching students about pronunciation or English speaking skills in class. Learning for vocational school students needs to pay attention to integration between technology and pedagogy to make learning effective. It is very important for teachers to understand students' characters so that teachers can design and carry out interesting learning activities for students. This process aims to provide knowledge and appropriate learning methods to students.

In order for the use of this application to create a good learning space, teachers need to design the teaching and learning plan or module as well as possible. It is important to pay attention to when these applications start to be used in the classroom at the right time. Teachers should not relinquish their responsibilities to this application alone, but here the teacher plays a role in controlling students so that activities continue as planned. Attention to students so that they do not get carried away or look for something different from the teacher's directions must also be paid attention to during activities that require students to use this application on their respective cellphones.

After this research is carried out and shows the results as previously explained, the researcher hopes that students will be more motivated in learning. Students are expected to be able to utilize existing technology as much as possible. By having a personal smartphone for each student, this has become the initial capital for utilizing existing technology. Smartphones are not tools that are only intended for refreshing things (games, social media) but can also be a means of learning both at school and independently.

For teachers, researcher hopes that in order for the use of this application to create a good learning space, teachers need to design the teaching and learning plan or module as well as possible. It is important to pay attention to when these applications start to be used in the classroom at the right time. Teachers should not relinquish their responsibilities to this application alone, but here the teacher plays a role in controlling students so that activities continue as planned. Attention to students so that they do not get carried away or look for something different from the teacher's directions must also be paid attention to during activities that require students to use this application on their respective cellphones.

For future researcher, researcher hopes that future researchers when carrying out research in the classroom will prepare methods or activities that can stimulate student motivation in learning, such as ice breaking or by giving something as an achievement to certain students. This aims to maximize the results of the research carried out for the research subjects. Especially when using the Cake application, the researcher advises future researchers to choose a research location whose area supports good internet access. By choosing a place that has good internet, it is hoped that the results of the expansion of the Cake application can show different results so that teachers have more consideration in choosing, designing and integrating technology with the world of teaching, especially using the Cake application.

## REFERENCES

- Barnabas, B., & Yukiarti, Y. (2013). *Tes keterampilan berbicara*. 1–14.
- Burns, A. (1999). Collaborative Action Research for English Language Teachers. *Cambridge Language Teaching Library*, 1999, 58–71.
- Chen, L., Chen, P., & Lin, Z. (2020). Artificial Intelligence in Education: A Review. *IEEE Access*, 8, 75264–75278. <https://doi.org/10.1109/ACCESS.2020.2988510>
- Corporation, P. C. (2018). *Cake Learn English & Korean*. Playstore. <https://play.google.com/store/apps/details?id=me.mycake&hl=en&gl=US>
- Hwang, G. J., Xie, H., Wah, B. W., & Gašević, D. (2020). Vision, challenges, roles and research issues of Artificial Intelligence in Education. *Computers and Education: Artificial Intelligence*, 1, 1–5. <https://doi.org/10.1016/j.caeai.2020.100001>
- Kelly, G. (2000). How to teach pronunciation. In J. Harmer (Ed.), *Pearson Education Limited* (Issue Vol. XXVII N° 3). Bluestone Press, Chelbury, Oxfordshire, UK. <https://doi.org/10.4000/apliut.1350>
- Kemmis, S., & McTaggart. (1988). The Action Research Planner. In *Geelong: Vol. 3rd ed.* (Issue 3). Deakin University Press.
- Kolb, L. (2011). *Learning First, Technology Second: The Educator's Guide to Designing Authentic Lessons* (p. 220). International Society for Technology in Education, 2017. <https://doi.org/10.1564846326, 9781564846327>
- Kusumadewi. (2003). Artificial Intelligence. *Artificial Intelligence (Teknik Dan Aplikasinya)*.
- Parmawati, A., & Inayah, R. (2019). Improving Students' Speaking Skill Through English Movie in Scope of Speaking for General Communication. *Eltin Journal: Journal of English Language Teaching in Indonesia*, 7(2), 43–53.
- Sinaga, A., Lumbangaol, R., Sinaga, D., Sitepu, A., Siallagan, E. A., Medan, S. E., D3, P., & Stikes, K. (2023). Pendampingan Kemampuan Pronunciation Bahasa Inggris kepada Mahasiswa yang akan Bekerja di Luar Negeri STIKes Santa Elisabeth Medan. *Jurnal Pengabdian Masyarakat Multi Disiplin Ilmu*, 1(2), 86–89. <https://jurnal.itscience.org/index.php/jpmasdi>
- Sugiyono, D. (2013). *Metode Penelitian Kuantitatif, Kualitatif, dan Tindakan*.
- Sutisna, I. (2020). Statistika Penelitian. *Universitas Negeri Gorontalo, April*, 1–15.
- Tapalova, O., & Zhiyenbayeva, N. (2022). Artificial Intelligence in Education: AIED for Personalised Learning Pathways. *Electronic Journal of E-Learning*, 20(5), 639–653. <https://doi.org/10.34190/ejel.20.5.2597>
- Wulan Agustina, U., Galih Khunai, A., & Wahab Hasbullah, K. A. (2021). Designing "PRONISH" ( Pronunciation of English ) for Beginner as Learning Media in

Pronunciation Practice at Unwaha University. *Multidiscipline International Conference*, 1(December), 478–482.

Yassin, M. (2021). *What Hinders English Speaking in Thai EFL Learners ? Investigating Factors that Affect the Development of their English Speaking Skills* 1. 45(3), 0–2.