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The Use of Text-To-Speech Software in Natural Reader Application to Improve Students' Pronunciation (A Pre-Experimental Research at Grade 9B of SMP PGRI 1 Ajibarang in the Academic Year of 2023/ 2024)

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ABSTRAK

Banyak siswa mengalami kesulitan dalam belajar berbicara dengan pengucapan yang benar. Salah satu masalahnya adalah siswa kurang percaya diri dan kurang pengetahuan tentang keterampilan pengucapan. Guru harus memikirkan teknik yang tepat untuk membantu siswa meningkatkan keterampilan pengucapan mereka. Aplikasi *Natural Readers* digunakan untuk mengatasi masalah ini, tetapi beberapa siswa masih mengalami kesulitan ketika menggunakannya. Penelitian ini bertujuan untuk meningkatkan keterampilan pengucapan siswa menggunakan Aplikasi *Natural Reader*. Penelitian ini menggunakan desain pra-eksperimental dengan pendekatan kuantitatif yang melibatkan 23 sampel siswa dari SMP PGRI 1 Ajibarang. Instrumen penelitian ini adalah pre-test yang terdiri dari 11 kata untuk diucapkan dan post-test yang terdiri dari 10 kata untuk diucapkan. Hasil penelitian ini menunjukkan bahwa keterampilan pengucapan siswa setelah menggunakan Aplikasi *Natural Reader* meningkat hingga 11,3% dari rata-rata skor pre-test 36,2 menjadi rata-rata skor pasca-tes 77,3. Selain itu, hasil nilai signifikansi adalah $0,002 < 0,05$, yang berarti bahwa keterampilan pengucapan siswa menggunakan Aplikasi *Natural Reader* meningkat secara signifikan. Dengan begitu, dapat dikatakan bahwa Hipotesis Alternatif diterima dan Hipotesis Nol ditolak. Penggunaan Aplikasi *Natural Reader* untuk keterampilan pengucapan siswa cukup efektif. Berdasarkan hasil penelitian di atas, penggunaan Aplikasi *Natural Reader* meningkatkan keterampilan pengucapan siswa di Kelas 9 SMP PGRI 1 Ajibarang dan penggunaan Aplikasi *Natural Reader* cukup efektif untuk keterampilan pengucapan siswa di Kelas 9 SMP PGRI 1 Ajibarang. Peneliti menyarankan agar guru bahasa Inggris menggunakan Aplikasi *Natural Reader* dalam proses pembelajaran, terutama dalam keterampilan pengucapan. Peneliti juga menyarankan agar siswa lebih banyak berlatih keterampilan pengucapan untuk meningkatkan kemampuan mereka.

Kata kunci: aplikasi pembaca alami, keterampilan pengucapan, teks-ke-suara

ABSTRACT

Many students have problems learning to speak with correct pronunciation. One of the problems is students' not confidence and limited knowledge about pronunciation skills. Teachers have to think of the right technique to help students improve their pronunciation skills. The Natural Readers application is used to solve this problem, but some students still have difficulty when it comes. This research has aimed to improve students' pronunciation skills using the Natural Reader Application. This research used a pre-experimental design with a quantitative approach involving 23 samples of students from SMP PGRI 1 Ajibarang. The research instruments were a pre-test consisting of 11 words to pronounce and a post-test consisting of 10 words to pronounce. The results of this research showed that students' pronunciation skills after using the Natural Reader Application improved by up to 11.3% from the mean of pre-test score 36.2 to the mean of post-test score 77.3. Furthermore, the results of significance values were $0.002 < 0.05$, which means that the students' pronunciation skills

using the Natural Reader Application significantly improved. It can be said that the Alternative Hypothesis was accepted and the Null Hypothesis was rejected. The use of the Natural Reader Application for students' pronunciation skills was fairly effective. Based on the research result above, the use of the Natural Reader Application improved students' pronunciation skills at Grade 9 of SMP PGRI 1 Ajibarang, and the use of the Natural Reader Application was fairly effective for students' pronunciation skills at Grade 9 of SMP PGRI 1 Ajibarang. The researcher suggested that English teachers should use the Natural Reader Application in the teaching-learning process, especially in pronunciation skills. The researcher also suggests that the student should have more practice in pronunciation skills to improve their abilities.

Keywords: natural reader application, pronunciation skills, text-to-speech

INTRODUCTION

Language is one of the most important things for humans. As a communication tool, language is used in daily activities to communicate, to socialize, and to interact with others. In addition, language is a medium for humans to communicate facts and knowledge, to explain what they need to obtain or report something, and to maintain social relationships with other language users. Language can be interpreted as a system of sounds and words that humans use to communicate thoughts and feelings, directly or indirectly (Rabiah, 2018). In other words, through conversation, language allows people to communicate thoughts, feelings, and information. It can be concluded that language is an important aspect of human life that is used for people to communicate.

In learning a language, speaking is one of the skills that is used to communicate with others. Speaking consists of several parts, and one part of speaking is pronunciation. According to Gilakjani (as cited in Ambalegin, 2018), speaking English requires many sub-skills such as vocabulary, grammar and pragmatics, and pronunciation, but pronunciation is the most important. Referring to the statement, this study focuses on pronunciation skills. Gilakjani stated that in speaking lessons, pronunciation is one of the elements of language that produces good sounds. It can be said that the ability to pronounce English words correctly is one of the sub-skills that everyone must have when speaking.

In learning pronunciation, several obstacles make pronunciation difficult due to the differences in accent, pronunciation style, and sound system between Indonesian and English. Errors in pronouncing words greatly affect communication because incorrectly pronouncing a vowel or a consonant in a word causes a different meaning, for example, in the words poor and pure. Utami (2021) explained that when

language learners or speakers try to learn a foreign language, their habits in the first language will be affected by the pronunciation of the target language. English is a foreign language that many people find challenging to pronounce since its symbols and sounds are different. In cases where many students know the meaning of a word but have difficulties expressing it in spoken language, the cause is very different between the spelling and the pronunciation of the word. Therefore, pronunciation skills are crucial for oral communication, as English language symbols and sounds can be challenging to pronounce, especially for students who don't know the meaning of a word.

The new digital technologies are becoming more advantageous for educational purposes and serve as great sources of motivation for language learners. The use of modern technology in teaching English is generally regarded to include the creative Application of strategies, techniques, materials, equipment, and procedures that are connected to English instruction in the achievement of desired objectives. Ahmadi (2018) stated that one of the important components of education is the techniques teachers employ in order to assist language learning in their lessons. One of the technologies that is popular is text-to-speech software.

The researcher conducted this research because the researcher found the problems related to pronunciation skills during the preliminary observation at SMP PGRI 1 Ajibarang. The researcher found that some students still had difficulties pronouncing the correct pronunciation. The researcher conducted the teaching and learning activities using the Natural Reader Application as a medium to improve students' pronunciation, and it was appropriate and effective. The students can practice how to pronounce words correctly after they use the Natural Reader application.

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Furthermore, the use of Natural Reader as a medium can solve the problems that occur in students' learning, so that it reduces pronunciation errors. It would make it simpler for students to learn pronunciation that they can apply in daily life. Based on the explanation above, the study aims to observe The Use of Text-to-Speech Software in the Natural Reader Application to improve students' Pronunciation at the Grade 9B students of SMP PGRI 1 Ajibarang in the Academic year of 2023/2024.

METHOD

This research employed a quantitative method. According to Creswell & Creswell (2017), quantitative research is a method for testing objective theories by examining the correlation between two variables. In a quantitative method, the data collection and analysis techniques are structured and represented numerically. According to Creswell & Creswell (2017), experimental research is divided into several types, such as pre-experimental, quasi-experimental, and true-experimental, and single-subject design. The researcher used pre-experimental research for this study. Pre-experimental design is one that involves one group or class that received a pre-test and a post-test.

The researcher conducted this research at SMP PGRI 1 Ajibarang. The respondents of this research were the students of Grade 9B, consisting of 23 students. The research used four data collection techniques to obtain the data: pre-test, treatment, post-test, and recording.

RESULTS AND DISCUSSION

Research Results

The research of "The Use of Text-to-Speech Software in Natural Reader Application to Improve Students' Pronunciation (Pre-Experimental Research at Grade 9B of SMP PGRI 1 Ajibarang in the Academic year of 2023/2024) was conducted from January 8th to January 22nd, 2024. The data were obtained from the students' pre-test and post-test scores. The pre-test and post-test data were collected as the main instruments. The researcher used SPSS Version 25 to analyze the data. This research was conducted from January 8th to January 22nd, 2024, in six meetings.

Validity

The research used a pre-test to determine whether or not the test items were valid and reliable. There was one type of question, true or false, given to the students.

It was known that each test item was valid. The data are said to be valid if $r_{\text{value}} > r_{\text{table}}$ (Priyatno, 2016). There was a correlation between variables. It was known that each test item had a $r_{\text{value}} > r_{\text{table}}$ (0.413). Therefore, the data was valid.

Reliability

The researcher used Cronbach's Alpha formula to determine if the test was reliable or not. The criteria of reliability were that if the value of Cronbach's Alpha was higher than the table value, it means that the test was reliable. The number of samples in this research was 23, with a 5% significance level, and the R-squared value was 0.413. It means that Cronbach's Alpha is higher than r_{table} .

Based on the calculation with Cronbach's Alpha formula in IBM SPSS 25.0, it showed that the score of the test was 0.829. It means that the value was higher than 0.413. In addition, according to the criteria of instrument reliability, 0.829 was in very high reliability. Therefore, the test was reliable.

Improvement of students' pronunciation skills using the Natural Reader Application

The results of the students' pronunciation skills using the Natural Reader Application on pre-test and post-test were presented in the table below:

Table 1. Improvement of Students' Pronunciation Skills using Natural Reader Application

No	Indicator	Mean Score		Improvement
		Pre-test	Post-test	
1	Pronunciation	36.29	77.39	11.3%

The data above revealed that the students' mean score of pronunciation was improved (11,3 %) from the mean score of 36.29 in the pre-test become 77.39 in the post-test. The result showed that there was an improvement in the mean score of the pre-test and post-test.

Effectiveness of Natural Reader Application for Students' Pronunciation Skills

Pre-test and post-test scores in the research were used to see the effectiveness of students' pronunciation skills using the Natural Reader Application, based on increasing test scores. Effectiveness was determined from the calculation of the N-Gain value. The results of the N-Gain score were presented in the table below:

Table 2. Effectiveness of Natural Readers to Improve Students' Pronunciation Skills

Mean Pre-Test	Mean Post-Test	Gain Score	Percentage
36.2	77.3	0.58	58%

The data above showed that the gain score is 0.58. The values of the gain score are included in the medium category. Meanwhile, the percentage of gain score was 58%, and it is included in the fairly effective category.

T-test

The research used a Paired-Samples T-test by using SPSS 25 to test the hypothesis. Hypothesis testing aims to produce a decision that is the decision to accept or reject a hypothesis. The hypothetical formula is as follows:

H₀: The use of text-to-speech software in the Natural Reader Application has no significant effect on students' pronunciation skills.

H_a: The use of text-to-speech software in the Natural Reader Application has a significant effect on students' pronunciation skills.

The results of the t-test can be seen as follows:

Table 3. T-test Results

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre-test	36.292	23	29.05977	6.05938
	post-test	77.391	23	21.99533	4.58634

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	pre-test & post-test	23	.491	.002

From the calculation using SPSS 25 above, this can be seen from the results of the mean score of the pre-test was 36.2 and the mean score of the post-test was 77.3. The table above shows there is an improvement in students' pronunciation skills using the Natural Readers Application. The improvement at Grade 9B was 11.3%. Therefore, correlation 0.491 with sig<0.05, that is 0.002, means it has a significant correlation. So, H_a is accepted and H₀ is

rejected, and it can be concluded that there is improvement in students' pronunciation skills using the Natural Readers Application on Procedure Text at SMP PGRI 1 Ajibarang in the academic year of 2023/2024.

Research Discussion

There are two parts to the discussion. First, the discussion is about the improvement of students' pronunciation skills using the Natural Reader Application. The second is about the effectiveness of the Natural Reader Application for students' pronunciation skills.

From the data obtained, it can be seen that after doing treatments using the Natural Readers Application, there was an improvement score. In this research, the researcher conducted a pre-test and a post-test for Grade 9B. The total number of students was 23. The test was in the form of true and false, consisting of 11 words to pronounce in the pre-test and 10 words in the post-test. The researcher analyzed the data by using SPSS 25. The results of the data showed that the highest score of the pre-test was 100, and the lowest score of the pre-test was 9.01. Then the highest score of the post-test was 100, and the lowest score was 20. Based on the pre-test evaluation, most students make errors when pronouncing words in diphthong sounds (ei), that is, *communicate*, *Brown* (au), and *mature* (ʊə). For the pre-test, most of the students still make errors when pronouncing words *slice* (ai) and *tour* (ʊə). The evaluation results showed that students still have difficulty pronouncing English words because they still found some English words that are hard to understand both in their meaning and the context of the words. Students often forgot how to pronounce words correctly. Based on the statement, the use of Natural Reader is beneficial for students, especially in pronunciation and speaking skills. As educators, we should have methods for increasing students' enthusiasm when learning and knowing what they learned easily, so they can apply it in their daily activities. According to Papangkorn (2015), to increase students' success in language learning, teachers' roles are very needed. As a teacher, it is needed to discover what and how students want to learn. So, in this case, after doing the pre-observation in class, the researcher used the Natural Reader Application to improve students' pronunciation skills for teaching and learning activities. Natural Reader is one of the text-to-speech applications that is easily used by students compared to other applications. As stated, Polly (2012) asserts that Natural Readers are available from websites and provide substantial text-to-

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speech support to meet various student needs. It can be interpreted that students' needs can be met in terms of increasing students' pronunciation abilities, as seen from the increase in the average pre-test and post-test scores after receiving treatment using the Natural Reader Application in learning English.

During the treatments, the researcher showed how to use the Application and apply it to students' topics in the procedure text material. At the first meeting, the researcher explained what pronunciation is and introduced the Natural Reader Application that will be used for teaching and learning English. The researcher gives manual instructions on how to use Natural Reader. Most of the students ask about the Application because it is their first time using the Natural Reader Application. By using the Natural Reader Application, students become more active, and the class atmosphere becomes more lively because there is a new method in learning English for students, especially in pronunciation skills. Positively, they are interested in trying it. Students' interest is one of the factors that leads to significant changes in students' abilities. The easy use of the Natural Reader Application also influences students' curiosity and makes them less likely to practice English.

In the second meeting, the researcher gave students material about the generic structure of procedure text and made a list of words that are usually used in procedure text, and after that, the words will be played in the Natural Reader Application. Students are active when a teacher presents material and gives examples using the application. Students are motivated to learn English and have the desire to try to pronounce the word after playing with the application. In the third meeting, the teacher gave an example of a procedure text, and students repeated the text after it had been read by the Natural Reader Application. After that, the teacher gives an assignment for students to make a procedure text individually. In the fourth meeting, the students practiced reading the procedure text in front of the class and ensured that they used good pronunciation. The researcher repeated the lesson from the previous meeting about procedure text using the Natural Reader application and the students also paid attention to the explanation given by the researcher.

The students' mean score of pronunciation was improved by 11.3% from the mean score of 36.2 in the pre-test and 77.3 in the post-test. The result showed that there was an improvement in the mean score pre-test and post-test. From the data obtained, there was a

significant score using the Natural Readers Application for students' pronunciation skills. In determining in final result, the researcher calculated the data using the Paired Sample T-Test. Based on the result obtained, the significance values were $0.002 < 0.05$. So, H_a is accepted and H_o is rejected, and it is clear that there was improvement in the student's pronunciation skills using the Natural Readers Application on Procedure Text at SMP PGRI Ajibarang in the academic year of 2023/2024.

From the data obtained, the pre-test and post-test scores were also used to see the effectiveness of the Natural Readers Application for students' pronunciation skills based on improvement in the test scores. To find out how effective the Natural Reader Application is for students' pronunciation skills, the researcher used the N-gain score.

The data shows that the gain score is 0.58. The values of the gain score were included in the medium category. Meanwhile, the percentage of gain score is 58%, and it is included in the fairly criteria. Therefore, the use of Natural Reader is fairly effective for students' pronunciation skills.

From an educational perspective, learning media are crucial in deciding the effectiveness of the teaching and learning process. Therefore, in the process of teaching and learning English, especially in pronunciation skills, media is needed to improve students' abilities so that learning objectives can be achieved optimally. In this research, the researcher used the Natural Reader Application to improve students' pronunciation skills. The researcher did pre-observations before implementing the Application in treatment. When conducting pre-observation, the researcher found that quite a few students were still confused about how to pronounce words correctly because they didn't know the spelling of words. It causes a misunderstanding between the speaker and hearer when they communicate, and it does not reach the goal of speaking. For example, words that were pronounced by the students in pre-activities were "bag" and "back". Therefore, when students pronounce these words in the wrong way and do not know the context, it will make it hard for the hearer to understand what the speaker means.

During treatment using the Natural Reader Application, the researcher explained how to use the Application optimally so that students can understand how to use it easily. Students tried to use the Application several times independently using text procedure material for practice in the Natural Reader Application. The result is that

students can read the text with correct pronunciation and minimal errors after they practice using the Natural Reader application. As stated by Shyamlee & Phil (2012), the use of technology can assist students to be confident and feel enjoyment in their practice. Collins et al. (2002) stated that "Multimedia can help learners understand the material". From the statement above, it can be said that Natural Reader could change the atmosphere in the classroom, because it helps the students to understand how to pronounce English words well, increases the spirit of students, and makes them more confident when they speak in front of the class. It can be concluded that the Natural Reader Application is effective in improving students' pronunciation skills.

From the discussion above, it can be concluded that by using the Natural Reader Application, students' abilities in English pronunciation have increased, it can be seen from the improvement in students' scores. The research found that using the Natural Reader Application significantly improved the pronunciation skills of 23 Grade 9B students, with the highest score of pre-test being 100 and the lowest score of pre-test being 9.09. Then the highest score of the post-test was 100, and the lowest score was 20. This highlights the importance of educators involving students in their learning process and implementing their needs in daily activities. Furthermore, the effectiveness of the Natural Reader Application in improving students' pronunciation skills reveals a medium and fairly effective gain score of 0.58. This application not only increased students' scores on the pronunciation test but also increased students' self-confidence when speaking English, and also changed the classroom atmosphere to be more active during the learning process. This can prove the effectiveness of implementing the Natural Reader Application in improving students' skills.

CONCLUSION

A pre-experimental design was used in this research on Grade 9B consisted of 23 students at SMP PGRI 1 Ajibarang. From the research analysis in the previous chapter, the conclusion was presented:

Based on the research results in the previous chapter, the students' pronunciation skills using the Natural Reader Application significantly improved. The result was that the significance value was $0.002 < 0.05$. As a result, the alternative Hypothesis (H_a) was accepted and the Null Hypothesis (H_o) was rejected. It can be said that there was an

improvement in the students' pronunciation skills using Natural Readers at SMP PGRI Ajibarang in the Academic year of 2023/2024. It was proven that the mean score of the pre-test was 36.2 and the mean score of the post-test was 77.3. Therefore, the students' mean score of pronunciation was improved by 11.3 % from a mean score of pre-test to and post-test. The use of the Natural Readers Application for students' pronunciation skills was fairly effective. It can be seen from the gain value calculation. The data obtained showed that the gain score was 0.58, and it was included in the medium category of gain scores. Meanwhile, the percentage of gain score was 58%, and it was included in the fairly effective criteria. Therefore, the use of the Natural Reader Application is fairly effective for students' pronunciation skills.

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