THE USE OF TEXT TO SPEECH SOFTWARE TO IMPROVE STUDENTS LISTENING SKILL AT 3rd GRADE SMPN 21 MAKASSAR

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Article Info	Abstract
Received: May 10,2020 Revised: May 27 17,2020 Accepted: June 13,2020 Published: June 25,2020 Keywords: Speech software Students listening skill.	The objective of this research is to find out whether the use of text- to-speech software improves students listening skills. The study employed a pre-experimental design in the form of a one-group pretest-posttest. This analysis depends on two separate factors. To clarify, the first variable is a dependent variable, while the second is an independent variable. The act of listening is a dependent variable, while text-to-speech software is an independent one. Students from SMPN 21 Makassar serve as the study's population, while a randomly selected class of third graders provides the study's sample size of 18. In this study, the researcher employed examinations as the primary tools. The results of the research is The used Text to Speech Software were able to improve the students' listening skill at the second at the 3rd GRADE SMPN 21 MAKASSAR. Based on the result of the research. The mean score of Pre-Test is 62,16 and the Post-Test mean score is 69,44. Based on the difference from the mean score students get in listening skill show the improvement from pre-test to post-test where the increase of students increased by 12%. The
	improvement of students' achievement significantly.

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INTRODUCTION

Across these four primary areas, the importance of English in Indonesia is plain to see. If you want to advance your career and earn more money in today's competitive employment market, learning English is the first step. Second, English is widely used as a medium of instruction across Indonesia, particularly in higher education. This, for instance, is a standard component of many standardized tests used for admission to public universities. Third, newspapers, magazines, movies, television shows, and radio programs are all available in English, giving Indonesians easy access to a variety of forms of entertainment. Last but not least, people utilize English to acquire access to information and knowledge via mediated computer interactions like e-mail, chat, and other World Wide Web resources. Because of the Vol 3, No. 1, June 2020 ISSN: 2656-5218, E-ISSN: 2622-2418 many roles the British have played in the country's history, Indonesia currently considers fluency in English not a luxury but a necessity. That's why from about the seventh grade forward, English is required to be studied as a foreign language in Indonesia.

One of the three competencies taught in English to include high school competency, for example, competencies for understanding and or generating text and/or written text contained in four language skills, was mandated by the Ministry of National Education (2004:2). (listening, speaking, reading, and writing). Graduates are expected to have the listening skills necessary to comprehend a variety of spoken and written texts, including those presented in formal and informal settings, and in the forms of recount, narrative, procedures, descriptive, news items, reports, analytical exposition, spoof, explanations, discussion, review, and humour (Ministry of National Education, 2004:1).

There has been significant development and advancement in urban media and pedagogical resources devoted to improving listening skills. In the classroom, you can use a variety of media such ASUS CDs, DVDs, and videos. However, there is a mountain of research showing that teachers don't prioritize listening skills (Field, 2009,). One classroom competency that was consistently sped up or slowed down was listening. Teachers tended to treat listening as though it were a commonplace action in life, and course technique was only superficially explored and analyzed. The other aspect was teachers' lack of dedication to utilizing an effective method in listening, such as incorporating an integrative skill that impacted listening as an indicator to rush through its instruction. Language acquisition relied heavily on the development of both reading and listening comprehension.

According to Wallace (2004:13), the ability to listen attentively and process the information being communicated is crucial to a person's development as a communicator. As a result, the ability to listen attentively is fundamental to mastering the language. Nonetheless, the act of hearing itself is complex. When someone has good listening skills, they are able to pick out individual sounds, grasp what they imply, take multiple factors into account at once, and make appropriate social and cultural adjustments based on what they hear (Vandergrift, 2012). Because of this, it is crucial to employ efficient strategy and approach in instructing kids who are capable of listening and comprehending very effectively. According to Rost (1994), one reason why students have trouble listening to English is that they have trouble focusing on what the teacher is saying. Such students may be having trouble adjusting to the

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many competing demands on their attention in today's classrooms. In addition, according to Yagan F (1993), the subject matter of the audio can be about anything. Students may hear about things like street gossip, idioms, and circumstances they have never encountered. There are also challenges relating to the speaker; for example, our students who are used to learning English through slow, methodical speech have a hard time understanding the rapid speech of native speakers and frequently complain that they can't follow what people are saying in conversations.

Text-to-Speech It's undeniable that, thanks to software and other forms of modern technology—especially computers—teaching and learning a foreign language is more engaging and appealing to students. Their interest can be stoked since it provides them with opportunities to engage with authentic content, meet new people, and travel to exciting locations. Computers are used to improve students' listening comprehension because they allow for more nuanced interaction with listening texts than do traditional media like tape cassettes and video players.

This section begins with defining CALL and analyzing its benefits and drawbacks because it serves as a catch-all for using text-to-speech technologies in the classroom. This allows for a concise explanation of what text-to-speech tools actually do. Various text-to-speech software will be analyzed.

The reason why the researcher chooses the TTS as a method to improve the student's listening skill because this method is unique and easy to understand easy to use too. Therefore, based on the issues above the desire of the researcher to know how the use of text to speech software improve the listening skill of the student at SMPN 21 MAKASSAR.

RESEARCH METHOD

Quantitative methods were applied for this study. Excellent descriptions of quantitative research methodologies were provided by Aliaga and Gunderson (2002). The statement "Quantitative research is an inquiry into a social problem, describe phenomena by obtaining numerical data that are examined using mathematically structured methodologies, e. g. in specific statistics," is relevant here.

The study employed a pre-experimental design in the form of a one-group pre-post test. Research using a pre-test administered before treatment and a post-test administered after Vol 3, No. 1, June 2020 ISSN: 2656-5218, E-ISSN: 2622-2418

treatment is called a "One Group Pre-test - Post-test Design." That's because the study's author can compare the students' levels of understanding before and after the intervention to get a more precise picture of the situation (Sugiyono, 2010:64). There was no sham group used in this study.

Studies were carried out at SMPN 21 in Makassar. Students from SMPN 21 Makassar serve as the study's population, with a class of 36 third graders serving as the study's sample. This institution was selected because its teachers may benefit most from a fresh approach to fostering students' listening abilities.

The instrument is a piece of data-gathering technology, and it plays a crucial part in facilitating the collection of information that can be used to enhance the quality of students' usage of text-to-speech in classroom discussions. The researcher employed examinations as the instruments in this investigation. There are two portions to each of the exams. There is an initial test and a final test. The researcher in this study administered a set of tests before and after the experimental period. Assessments were administered at the beginning and again at the end, serving as pre and posttests, respectively.

RESULTS AND DISCUSSION

A. Findings

The results of the data analysis revealed that the usage of text-to-speech software can help students in third grade SMPN 21 MAKASSAR enhance their listening abilities:

The Result of students listening skills on the use text-to-speech software in at 3rd-grade SMPN 21 MAKASSAR

The result of the students' ability to listening skill at the 3rd-grade of SMPN 21 Makassar as a result of the students' assessment of Pre-Test and Post-Test is described as follows:

Indicator	The stud	lents score	Result (%)
	Pre-Test (X ₁)	Post-Test (X ₂)	
Listening	62.1	69.4	12%

Table 4.1 Result of students listening skills

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Mean	12%

The use of text-to-speech software in the classroom was associated with higher test scores for pupils, as seen in the table above. The evidence for this is found by contrasting pupils' performance on a pre- and post-test. The students improved by 12% between the pretest and posttest. The implementation led to a 12% improvement in pupils' listening skills.

The following chart illustrates how the pupils fared in terms of their listening abilities.

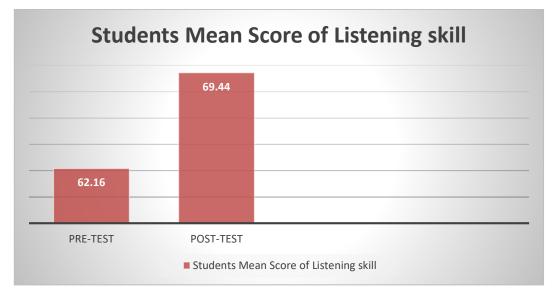


Figure 4.1 Students Mean Score of Listening skill

The students' mean listening scores have increased (see Figure 4.1), indicating that they are improving in this area. Comparing the Pre-Test mean score of 62.16 to the Post-Test mean score of 69.44 shows a significant improvement. A 12% increase in test-taking success can be inferred from the pre- and post-test differences in students' lestening skill mean scores. What this means is that the third graders at Smpn 21 in Makassar benefited greatly from using text-to-speech software to enhance their listening comprehension.

2 The Classification of the Students' Pre-Test and Post-Test

a) Pre-Test

4.2 The rate Percentage Score of students listening skill

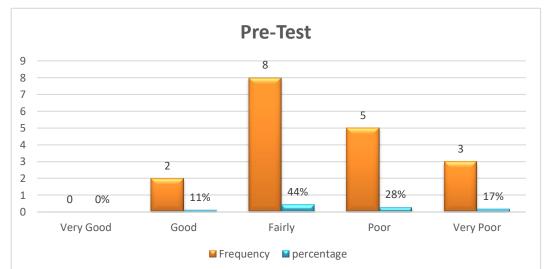
No	Classification	Score	Frequency	Percentage
Fi	kri Abdu Rahman et al (Opt		plication to the Students tion in Education	' Vocabulary)

1	Very Good	91-100	0	0%
2	Good	76-90	2	11%
3	Fairly	61-75	8	44%
4	Poor	51-60	5	28%
5	Very Poor	Less than 50	3	17%
Total			18	100%

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According to Table 4.2, none of the pupils were rated as "Highly satisfactory," while two (11%) were rated as "Good," eight (44%) were rated as "Fairly satisfactory," five (28%) were rated as "Poor," and three (17%) were rated as "Very poor." Results from the preceding table suggest that pupils' listening abilities can be fairly categorized.

Third-grade students at SMPN 21 MAKASSAR were given a listening comprehension pre-test, and the results are displayed in the following char:



See also: Figure 4.2 Its Prevalence and Percentage Students' Listening Ability as Measured by a Pre-Test

Figure 4.2 shows the comparison between students' pre- and post-test scores. Two students (11% of the total) scored in the excellent range, eight students (44% of the total)

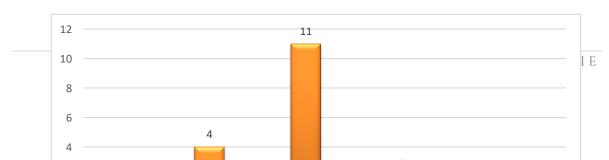
Vol 3, No. 1, June 2020 ISSN: 2656-5218, E-ISSN: 2622-2418 scored in the good range, and five students (28% of the total) scored in the poor range in the pre-test. In the end, three pupils (17%) were placed in the very low category.

b) Post-Test

No	Classification	Score	Frequency	Percentage
1	Very Good	91-100	0	0%
2	Good	76-90	4	22%
3	Fairly	61-75	11	61%
4	Poor	51-60	2	11%
5	Very Poor	Less than 50	1	6%
	Total		18	100%

4.3 The rate Percentage Score of students listening skill

Table 4.3 reveals that out of the total number of pupils, 0% were rated as having a "Very good" performance, 21% as having a "Good" performance, 61% as having a "Fair" performance, and 11% as having a "Poor" performance. One student (6% of the total) was placed in the very poor category. The findings suggest that teaching students to listen more carefully during class would improve their ability to correctly categorize spoken words.



POST-TEST

See Fig. 4.3 Student Performance in Listening, Analyzed by Frequency and Percentage

Pre- and post-test results are shown to be improved upon in figure 4.3. Four students (22% of the total) were placed in the Good category after taking the post-test, up from one student (11% of the total) in the Pre-Test. As opposed to the Pre-44%, Test's 11 pupils (61% of the total) were placed in the Fairly Category. There is a rise between the pre- and post-test percentages, as evidenced by the difference of just two pupils (11% vs 20%). Next, compared to the Pre-3 Test's students (17%), just 1 student (6%) was placed in the Very Poor category. Students' listening abilities rise in accordance with their classification. Smpn 21 Makassar Grade 3.

2. Test of Significance Testing and Hypothesis

The significance of the difference between the pre- and post-tests was determined using a t-test analysis with a significance level of p 0.05 and a degree of freedom of df + N-1 (where N=the total number of subjects) (18 students). Results of a t-test analysis of students' listening comprehension are shown in Table 4.4.

Variable	T-Test	T-Table
Text To Speech Software	7,426	1,740

Table 4.4 The Comparison of T-test and T-table Students' Listening Skill Score

According to Table 4.5, the t-test values exceeded the t-table value. Text to speech software showed a statistically significant improvement in student performance between the pre- and post-tests.

a. Hypothesis Testing

Using a t-test with a significance level (p) of 0.05, a df (degrees of freedom) of 18, and a t-table size of 1,740, the researcher was able to draw certain conclusions. In the meantime, the t-test P value is 7,426. To put it another way, the t-test value was greater than the t-table value. Therefore, students' listening skills have improved. This signifies that the alternative hypothesis (H1) won out over the null (H0).

B. Discussion

This section of the report discusses how the results of the study on the students' listening ability should be interpreted. Possessing excellent listening skills aids in communication, vocabulary acquisition, and pronunciation. In oral communication, also known as the interactive process in which one person plays both the speaker and the listener through verbal and nonverbal components, listening is an essential component.

Results from a pre- and post-test suggest that students' performance improves while using Text to Speech Software to improve their listening comprehension in AT 3rd Grade Smpn 21 Makassar. The researcher administered a Pre-Test to determine the pupils' existing levels of listening comprehension before implementing Text to Speech Software. The researcher found that the third graders' listening skills were low after giving them a pre-test.

The results of the pre-test showed that the children performed quite poorly. To aid students in developing their listening abilities, the study's author opted to use text-to-speech software.

After identifying the issues with the kids' listening abilities, the researcher needed to think about how to fix them. The results of this study suggest that the use of Text to Speech Software in the classroom leads to improved learning outcomes for students. The results of the study indicated that the use of Text to Speech Software in the classroom led to an increase in academic performance for the pupils.

When it comes to helping pupils improve their listening skills, there's no denying the usefulness of Text to Speech software. According to Dotiot (1987), Text to Speech Software uses patented speech synthesis technology to read out the anthropomorphic sounds with

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regulated speed and frequency. This is accomplished by first converting text information into a voice reading, and then using natural semantic analysis techniques generated by artificial intelligence to make effective judgments about letters, words, numeral tone, and special reading methods.

Finally, the study's author stresses the significance of Text to Speech Software as one of many possible means of teaching students to listen. The Text to Speech Software boosted the instruction of listening skills due to a number of factors. Students were able to learn from one another and put their theories to the test. Teachers benefited from students being more engaged and contributing more valuable ideas to class discussions and other learning activities. Both students and educators understand what is required of them during class time.

CONCLUSION

Based on the research findings and discussion in the previous, the researcher draws conclusion in the following statement. The application of Text to Speech Software in teaching listening improved the students' listenign comprhesion significantly at the 3rd GRADE SMPN 21 MAKASSAR. The used Text to Speech Software were able to improve the students' listening skill at the second at the 3rd GRADE SMPN 21 MAKASSAR, the improvement of students' achievement significantly. It was proved by the students' achievement in cycle II was higher than cycle I and Diagnostic Test.

REFERENCES

- Arono. (2014). Improving students listening skill through interactive multimedia in Indonesia. Journal of Language Teaching and Research, 5(1), 63–69. https://doi.org/10.4304/jltr.5.1.63-69
- Dutoit, T. (1997). An Introduction to Text-to-speech Synthesis. Dordrecht: Kluwer Academic. Ehsani, F., & Knodt. E. (1998). Speech technology in computer-aided language learning:
- Strengths and limitations of a new call paradigm. Language Learning & Technology.
- Gay, L.R (1981). Education Research. Competencies for Analysis ad Application. Florida: Florida Bell and Howell Company.
- Gilakjani, A. P., & Ahmadi, M. R. (2011). A Study of Factors Affecting EFL Learners' English Listening Comprehension and the Strategies for Improvement. *Journal of Language Teaching and Research*, 2(5), 977–988. https://doi.org/10.4304/jltr.2.5.977-988
- Hall, K., Cunneen, M., Horgan, M., Cunningham, D., Murphy, R., & Ridgway, A. (2014). Loris Malaguzzi and the Reggio Emilia Experience. Bloomsbury Publishing.
- Huang, Yi-Ching and Lung-Chuan Liao (2015) A Study Of Text-To-Speech (Tts) In Children's English Learning, Taiwan: University of Science and Technology.

- Leohart, Joe. (2008). Learn English Speaking. Online Article at www.wordnet.princeton.edu. (Retrieved on September, 26 2018)
- Listiyaningsih, T. (2017). The Influence of Listening English Song to Improve Listening Skill in Listening Class. *Academica*, 1(1), 2579–9703. http://ejournal.iainsurakarta.ac.id/index.php/academica/article/download/601/177
- Nur, r. a. (2014). developing appropriate interactive learning multimedia of listening and speaking for when english rings the bell for grade vii students (doctoral dissertation, yogyakarta state university).
- Stodden, R. A., Roberts, K. D., Takahashi, K., Park, H. J., & Stodden, N. J. (2012). Use of text-to-speech software to improve reading skills of high school struggling readers. *Procedia* Computer Science, 14(Dsai), 359–362. <u>https://doi.org/10.1016/j.procs.2012.10.041</u>
- Susilowati, a. (2013). improving the tenth grade students'listening skills using videos at sman 4 yogyakarta in the academic year of 2012/2013.
- Tangpermpoon, T. (2008). Integrated approaches to improve students writing skills for English major students. ABAC Journal, 28(2), 1–9.
- Tiberranine, S., & YAHIAOUI, N. (2016). Students and Teachers' Attitudes towards Using English Songs to Develop the Listening Skill in the Advanced Learners' EFL Classroom The Case of Third Year Students at MMUTO (Doctoral dissertation, University Mouloud Mammeri of Tizi-Ouzou).
- Ulum, O. G. (2015). International Journal of Humanities Social Sciences and Education (IJHSSE) Listening: The Ignored Skill in EFL Context. International Journal of Humanities Social Sciences and Education, 2(5), 72–80.
- Vandergrift, L. (1999). Facilitating second language listening comprehension: Acquiring successful strategies.
- Wiyanah, S. (2015). Improving Listening Skill Using Podcast for English Department Students of Upy. Seminar Nasional Universitas PGRI Yogyakarta.