THE EFFECT OF EDUCATIONAL PODCASTS AS DIGITAL LITERACY MEDIA ON STUDENTS' SPEAKING ABILITY AT ESP CLASS

Divya Fitriyani[1], Yuvita[2], Anin Eka Sulistyawati[3]

[1]*Universitas Pancasakti, Indonesia*

divyafitriyani62@gmail.com

Abstract

Digital literacy media is thought and believe to help teachers create new method for teaching English language in this 5.0 era. Educational podcasts is regarded one of the media of digital literacy as authentic learning resources when it comes to teaching English specifically for speaking. The objectives of this research were to find out the effect of educational podcasts to improve speaking ability and to determine whether educational podcasts give significant differences on students' speaking ability between those who are taught by using educational podcast and those who are taught without educational podcasts at ESP Class. Research methodology in this research is experimental research with post-test only control group design. The population and sample was all of the fourth semester students of Mechanical Engineering at UPS Tegal, which was total of 30 students consist of 15 students of 4A as experimental class and 15 students of 4B as control class. The data collected through treatment, post test, and documentation. The data analysis used hypothesis test. After four meetings of treatment, students given a post-test, the result showed that there is a positive effect and significant differences between two classes. Based on the results of the independent sample t-test, the sig. (2-tailed) value is 0.001 which is lower than 0.05 which is indicates the significant differences between two classes. Due to the result above, the researcher suggested that support particularly from lecturers and institutions, is needed for the implementation of educational podcasts as digital literacy on students' speaking ability at ESP class.

Keywords: Speaking, Educational Podcasts, Digital Literacy, ESP Class.

1 INTRODUCTION

In the current trend of the 5.0 era, one of the characteristics of students is attached to digital technology. Digital technology is used in all aspects of life today, from lifestyle to education. Over time, a new concept of knowledge emerged related to digital technology that is widely known and used by students, commonly called Digital Literacy. Digital literacy is an important issue for society and students, especially in the era of society 5.0 which is getting faster (Daroin & Auliya, 2022). Students are asked to express their ideas, critics, and opinions in digital media. A new perspective on how well a teacher or student uses digital devices is provided by digital literacy (Yuvita et al., 2022). In addition, they must also be proficient in operating various applications supporting learning needs, editing skills, making videos, conveying messages through creative content and spreading them through education applications on internet, which then becomes a learning challenge today. These days, it is crucial for both educators and students to be aware of technology. It does not necessarily follow that students and teachers will be able to use technology in the classroom even if they have no difficulty using them for entertainment (Sunmud, 2021). Furthermore, the main competencies of digital literacy are related with how students can search and find the information according to their needs and involves more knowledge and skills to be able to achieve good quality use of e-resources (Rodin & Nurrizqi, 2020).

Moreover, regarding language learning, especially in English, the role of digital literacy media is very much needed. Especially in improving speaking ability which generate more anxiety for most students especially for ESP students, compared to other skills such as reading, writing, and listening. Speaking is a crucial part of English language learning, it's an art of communication and one of 4 productive skills, that must be master in learning foreign languages (Prasetya & Nuraeni, 2021). In conclusion, speaking is the key part of English for communicating puproses in this digital literacy era.

Additionally, for most students especially in ESP class, in this research focused on Mechanical Engineering students of Universitas Pancasakti Tegal, English is very important to them since they must deal with tutorials, handbook, labs, project reports, and papers using some words in English. Furthermore, English is the universal language used by engineers to convey their concepts, ideas, and innovations in all nations (Kumar & Kumar, 2018). The "First Language" or "Working Language" that all engineers must be able to use and comprehend is English. Strong English speaking abilities to be believed to be necessary traits for any engineer to have. To overcome this reason, a strategy is needed that can attract ESP students to be involved in the teaching and learning process, as well as give them the opportunity to have more time to practice speaking and help them enrich their knowledge of English vocabulary, sentence structure, and pronunciation, so that they can speak spontaneously, fluently and correctly by using English.

As an innovative teacher, whose task is to solve students' difficulties during the learning process, especially speaking, podcasts are used as media which are currently attracting the attention of many people, especially teenagers or millennials (Husna & Surjowati, 2022). Podcasts are almost the same as radio, but there are things that set them apart. Radio usually has its own channel, and can be heard on equipment or in certain areas because in Indonesia, especially each region has a different radio channel. But podcasts are more flexible and simple. Podcasts can be accessed and downloaded anywhere and anytime. Most podcasts are unpaid or free. It is enriched with many subjects and various topics of conversation (Fatika & Rahayu, 2021). The podcast contains authentic material for teaching speaking, because students are immediately given examples of how native English is spoken which can be accessed easily and downloaded by a computer or mobile phone, and then can be listened to using an mp3 player or video player (Daniati et al., 2018). Using podcasts is the right technique in teaching speaking, because it can enrich the quality of learning.

2 METHODOLOGY

This study was quantitave research because this method could evaluating the relationship between several variables in order to test objective theories (Creswell, 2012). From the beginning to the formulation of the research design, the quantitative research method's specifications are systematic, planned, and well outlined. The purpose was to find the effect of educational podcasts as digital literacy media for teaching speaking at ESP Class. In this research, the researcher did the research in Mechanical Engineering students on fourth semester of Universitas Pancasakti Tegal. The target population was the fourth semester of Mechanical Engineering students with total number 30 students. The experimental group was comprised of 15 students in 4A, whereas the control group was comprised of 15 students from 4B class. Because the population of the study are less than 100 in number, the researcher had better taken all of them and used total sampling to collect the data sample. The

researcher used treatment, post test, and documentation to collect the data. For measuring reliability, the researcher in this experiment, used five level rating scales that are proposed by Hughes (2003). The topic of the post-test was about Mechanical Engineering. In conducting this research, five meetings were organized, including four treatments and a post-test. In the treatment sessions, the researcher mostly used educational podcasts to improve the students' speaking ability. The treatment was administered over the course of four meetings, about 100 minutes each. Additionally, the researcher used a different educational podcast discussion based on the materials at each meeting during the treatment procedure. The researcher used oral test for post-test in order to know the progress of the students' speaking ability after using Educational Podcasts. The researcher gave a video about related topic for the students in a control group and the educational podcasts for the students in an experimental group, after that they had to make their own podcast related to the material in Mechanical Engineering. The researcher next instructed each students to make a group accordance with the assigned subject and recorded to the researcher in the form of audio-podcast. The documentation used in this research during the treatment process until gave them post test session like videos, pictures and also transcript from their audio-podcasts.

3 RESULTS

This chapter presents the results of the experimental research from five meetings on fourth semester of Mechanical Engineering students UPS Tegal.

3.1 Research Results

This research investigated the effect of educational podcast as digital literacy media on students' speaking ability at ESP class. It had been carried out in class IV A as experimental class and IV B as control class. It was conducted from 17 May to 16 June 2021. The treatment was conducted once in a week. After implementing different learning strategies between the experimental group and the control group, the researcher obtained data on student learning outcomes via speaking tests. Finally, the post test was conducted on 14 June and 16 June 2021.

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3.1.1 Descriptive Analysis

According to the statement of the problems, the results of the speaking test in the posttest for both the experiment class and the control class served as the research's data. The test was administered to both classes, although in different treatment. The test was carried out to determine whether the treatment procedures had any significant effect on the students' speaking abilities, particularly in the experimental class. While the control class received different treatment, they study without using educational podcasts.

Speaking performance was also assessed using Hughes's five speaking-related criteria: pronunciation, grammar, vocabulary, fluency, and comprehension. The minimal and maximal scores, mean scores (X), and standard deviations (SD) of the speaking scores obtained from the posttest of the experimental class and control class were all determined through analysis of the data. The t-test, which Sudjana (2005) proposed, was used to analyze the data.

Table 1. The Score of Speaking Test of Experimental and Control Class

Class	N	Highest Score	Lowest Score	Mean (X)	Total score
Experimental	15	89	69	79.06	1186
Control	15	84	58	70.06	1051

Table 2. The Comparison of Post Test of Experiment and Control Class in terms of Acccent, Grammar, Vocabulary, Fluency, Comprehension

No	Aspects/Components	Experiment Class	Control Class	Difference
1	Pronunciation	35/15 = 2.3	36/15 = 2.4	0.1
2	Grammar	324/15 = 21.6	294/15 = 19.6	2.00
3	Vocabulary	348/15 = 23.2	284/15 = 18.9	4.3
4	Fluency	166/15 = 11.06	160/15 = 10.66	0.4
5	Comprehension	313/15 = 20.86	277/15 = 18.46	2,4

Both groups' speaking test overall scores were significantly different from one another. The experimental group overall score was 1186, with 89 was the highest, 69 was the lowest, and the mean of experimental group was 79.06. The control group overall score was 1051, with the highest score being 84 and the lowest score was 58. The mean of control group was 70.06. For further explanation about the comparison of every aspects in speaking presented in discussion.

3.1.2 Hypothesis Test

The researcher used T-test analysis using SPSS 22 to determine whether the hypothesis was accepted or rejected. The formula for calculating T-test between the experiment's and the control class mean score is as follows:

Table 2. The Independent Sample Test.

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Post Test	Equal variances assumed	2.740	.109	3.542	28	.001	9.00000	2.54097	3.79507	14.20493
	Equal variances not assumed			3.542	24.577	.002	9.00000	2.54097	3.76221	14.23779

From the data above it can be seen that the significance score Sig 2 tailed 0.001 < 0.05. Based on the table above, it can be seen the independent sample t-test data showed the value of sig (2-tailed) was 0.001. The researcher used > sig a= 0,05 (5%) as a significant standart, therefore the null hypothesis (Ho) is rejected and the alternatif hypothesis (Ha) is accepted because the sig (2-tailed) value of 0,001 is smaller than sig a = 0,05 (5%). Thus, there is a significant different between experimental group and control group who were taught by educational podcast and those who were not. As a result, the research hypothesis (Ha) can be accepted and the hypothesis (Ho) can be rejected.

3.1.3 Discussion

According to the qualitative analysis from researcher, the effect of educational podcasts as digital literacy media in the classroom was generally positive. According to Richards, J.C.&Renandya (2002), giving students opportunities to utilize the language and broad exposure to authentic speech through audio-visual stimuli may be one strategy to encourage them to speak by imitating the speaker in the podcasts, students can improve their speaking abilities. In this research, learner podcasts were utilized as an innovative supplemental teaching method to assist students in improving their speaking abilities. Podcasting as a way of learning a foreign language has its roots in the natural language learning approach, which is thought to be the oldest one.

The researcher discovered some positive effects after using podcasts as a teaching tool on Mechanical Engineering students in fourth semester. The majority of students thought that using podcasts in the classroom to learn English is an engaging and motivating activity, because they have never used this method before. Podcasts were thought to offer actual listening practice resources and foster a positive learning environment in the classroom (Rachmaniputri et al., 2021). Students said because the topics were customized for the course materials especially in Mechanical Engineering, it made easier for them to participate in and apply what they had learned. Additionally, the usage of podcasts in the classroom was thought to encourage students to learn English because they assist them not only with listening but also with vocabulary, pronunciation, and comprehend the material better than before. Podcasts might actually encourage someone to think critically and creatively (Abdulrahman et al., 2018). Students appreciate the flexibility of a podcast since they can use it outside of the classroom and even download it, which greatly facilitates their discovery of podcasts. Students can discuss with their friends to criticize the topics presented in the podcast related to some issues especially in Engineering field, whether that is accordance with the facts or is it just a hoax narrative from the podcaster.

A post-test was used to see the significant differences of the performance between the two classes. The result of the hypothesis test revealed a significant difference in the speaking abilities of the students between those who received podcast-based instruction and those who did not. The results of the speaking assessments showed that students' in experimental class for speaking abilities greatly improved after taught by educational podcasts as compared to their speaking proficiency before they started to learn with podcasts. According to the computation of the post-test results, the experimental class mean score was 79.06, compared to the control class 70.06. It can be inferred that the experimental class mean score was higher than the mean score of the control class, which was taught without using podcasts. The comparison of students' mean post-test results in pronunciation, grammar, vocabulary, fluency, and comprehension across the two classes can help explain whether Educational Podcasts had any significant impact on students' speaking abilities. It was explained by the table of the comparison of the aspects speaking in the appendix.

First, speaking skills include pronunciation, which is crucial for effective communication. A pronunciation is a manner of speaking that is widely accepted and understood. It makes use of the language's sounds as well as the appropriate amount of stress, rhythm, and intonation (Indri & Handayani, 2017). Based on research conducted over the class of five meetings, the use of the Educational Podcasts technique had a considerable positive impact on the pronunciation. Students can talk more clearly by pronouncing their words while they speak because imitating the way of native speaker said in the podcasts. It focuses on the phonological process, which is the part of grammar that consists of the components and rules that define how sounds change and pattern in a language. The mean post-test pronunciation score for the experimental group students was 2.3. Additionally, the control group mean post-test pronunciation score was 2.4. The differences between the two groups were 0.1. The control group had increased more than the experimental group.

The second component that assessed in speaking is Grammar. Grammar comprises a wide range of crucial components for spoken language, including a comprehension of verb tenses and proper sentence construction. Grammar enables to communicate ideas in a way that others will recognize and comprehend. The mean grammar post-test score for the experimental group of students was 21.6. On the other hand, the control group mean post-test grammar score was 19.6. The differences between the two groups were 2.00. It can be conluded that the experimental group had increased more than the control group.

Vocabulary is an important component in speaking. According to Meng Chan et al., (2011) claim that students can increase their vocabulary since they access podcasts based on their interests. The ability to construct English sentences depends on the learner's vocabulary, therefore it is essential for

English language learners to possess a wide range of words in addition to understanding grammar. English sentences are simpler to construct for learners who have a big vocabulary. Prior to learning how to speak a language, students need to develop their vocabulary. Based on research in five meetings, the vocabulary showed the greatest development, which was influenced by the use of Educational Podcasts. The post-test mean vocabulary scores for the experimental group was 23.2. The vocabulary post-test mean score for the control group of students in the other class was 18.9. The differences between the two groups were 4.3. The experimental group had increased more than the control group.

The next component in speaking for ability to articulate ideas clearly and fluidly, especially when speaking, is known as fluency. Fluency is also about keeping the rhythm, pace, and fluidity of speech (Cendra & Sulindra, 2022). The explanation may have a few occasional grammatical errors, but it should be presented in a way that is clear and demonstrates command of the language, speaking clearly, reasonably rapidly, and without a lot of pausing is what is meant by being fluent in a language. The post-test mean fluency scores for the experimental group was 11.06. The fluency post-test mean score for the control group of students in the other class was 10.66. The differences between the two groups were 0.4. The experimental group had increased more than the control group.

The last component that assessed in speaking is comprehension. It may be inferred in speaking, comprehension refers to the speakers' knowledge of what they are expressing to the listeners in order to prevent misinterpretation of information. The post-test mean of comprehension scores for the experimental group was 20.86. The comprehension post-test mean score for the control group of students in the other class was 18.46. The differences between the two groups were 2.4. The experimental group had increased more than the control group.

According to the previous explanation, it was shown that teaching speaking using the educational podcasts had a significant effect on students' speaking abilities, particularly their speaking component, which emphasized vocabulary especially before proceeding on to others component. Additionally, it was discovered that vocabulary had the greatest impact based on a comparison of the mean scores in speaking features between the experimental class and the control class.

4 CONCLUSIONS

Based on the research findings and the discussion from the previous chapter, it would be reasonable to reach the conclusion that students who learned speaking through podcasts and those who learned speaking through youtube experienced significantly different learning outcomes. The results of an independent t-test between the experimental class and the control class showed what the podcast's educational objectives were. It is known from the students improved score after the post-test that their speaking abilities have improved. Given this point, using podcasts to teach speaking has been successful in helping students improve their speaking abilities, particularly their fluency and pronunciation.

Additionally, learner podcasts were used in this study as an addition to English language instruction rather than serve as the primary educational instrument to support the development of speaking abilities in ESP students. The study's conclusions about the impact of learner podcasts on the improvement of learners' speaking abilities showed that using educational podcasts as an additional teaching method is very beneficial in increasing ESP learners' speaking abilities. This significant conclusion is supported by other studies, which show that podcasting works best to support the teaching process when used as a supplemental resource rather than the primary means of communicating language instruction's subject matter. (Bennett, 2008)

In accordance with the results mentioned above, using podcasts to improve students' speaking abilities is possibly one way to address the problem of speaking difficulties among students. Because of this, podcasts may assist students in improving their language and speaking abilities. It is evident from the podcast's findings about the experimental class students. As a result, in order to fully utilize podcasts to improve students' speaking abilities in the learning process, both the teacher and the students must actively participate.

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REFERENCES

[1] Abdulrahman, T., Basalama, N., & Widodo, M. R. (2018). The impact of podcasts on efl students' listening comprehension. International Journal of Language Education, 2(2), 23–33. https://doi.org/10.26858/ijole.v2i2.5878

[2] Bennett, E. (2008). Using supplementary podcasts to enhance campus-based courses: Students' perceptions and usage. Learning Technology Newsletter.

[3] Cendra, A. N., & Sulindra, E. (2022). Speaking Accuracy, Fluency, and Beyond: Indonesian Vocational Students' Voices. LLT Journal: A Journal on Language and Language Teaching, 25(2), 379–394. https://doi.org/10.24071/llt.v25i2.4579

[4] Creswell, J. W. (2012). Research design : qualitative, quantitative, and mixed methods approaches.

[5] Daniati, A. S., Mardjohan, A., & Piscayanti, K. S. (2018). The Use of Podcast to Improve Students' Speaking Competency of Tenth Grade Students of SMA Negeri 1 Amlapura in Academic Year 2015/2016. Lingua Scientia, 23(2), 34. https://doi.org/10.23887/ls.v23i2.16073

[6] Daroin, A. D., & Auliya, S. M. (2022). Mengukur Tingkat Literasi Digital Siswa Sekolah Menengah Atas (SMA) di Madiun. Jurnal Pendidikan Ekonomi, 15(1), 31–36.

[7] Fatika, N. F., & Rahayu, E. M. (2021). Using Podcast Media on Teaching Listening in New Normal Era. Academic Journal Perspective : Education, Language, and Literature, 9(1), 68. https://doi.org/10.33603/perspective.v9i1.5031

[8] Harris, D. P. (1969). Testing English as A Second Language. London: McGraw-Hill Book Company.

[9] Husna, U., & Surjowati, R. (2022). MAJORING IN FASHION THROUGH PODCAST MEDIA AT SMK N 8. 3(2).

[10] Indri, D., & Handayani, F. (2017). Teaching English Pronunciation Using Film. Journal of English and Education, 5(2), 194–201.

[11] Kumar, S. P., & Kumar, N. S. P. (2018). The role of english and the importance of communication to the mechanical engineering students. International Journal of Mechanical Engineering and Technology, 9(9), 782–788.

[12] Meng Chan, W., Won Chi, S., Nyet Chin, K., & Yao Lin, C. (2011). Students' Perceptions of and Attitudes towards Podcast-Based Learning-A Comparison of Two Language Podcast Projects. Electronic Journal of Foreign Language Teaching, 8(1), 312–335. http://e-flt.nus.edu.sg/

[13] Prasetya, E. P., & Nuraeni, N. (2021). the Use of Podcast To Promote Students' Speaking Ability in Online Learning At the Covid Pandemic 19. Journal of English Educational Study (JEES), 4(1), 11–20. https://doi.org/10.31932/jees.v4i1.794

[14] Rachmaniputri, F. I., Purnawarman, P., & Gunawan, M. H. (2021). Students' Perceptions Towards the Use of Podcasts in Listening Class. Proceedings of the Thirteenth Conference on

Applied Linguistics (CONAPLIN 2020), 546(Conaplin 2020), 179–187. https://doi.org/10.2991/assehr.k.210427.028

[15] Richards, J.C. &Renandya, W. A. (2002). Methodology in Language Teaching an Anthology of Current Practice. Cambridge: Cambridge University Press.

[16] Rodin, R., & Nurrizqi, A. D. (2020). Tingkat Literasi Digital Mahasiswa Jurusan Ilmu Perpustakaan Dalam Pemanfaatan E-Resources UIN Raden Fatah Palembang. Pustakaloka, 12(1), 72–89. https://doi.org/10.21154/pustakaloka.v12i1.1935

[17] Sudjana. (2005). Metoda Statistika (Tarsito (ed.)).

[18] Sunmud, S. (2021). ANALYZE THE DEVELOPMENT OF DIGITAL LITERACY FRAMEWORK IN EDUCATION : A Analisis Perkembangan Framework Literasi Digital dalam Dunia. 242–254.

[19] Yuvita, Y., Hartono, R., Fitriati, S. W., & Saleh, M. (2022). Perceptions of Technology in Language Teaching among English Pre-service Teachers. 206–209.