Improve Students 'Speaking Ability Using Android-Based Learning Applications

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Abstract. The purpose of this study was to improve students' ability in English pronunciation using an Android-based learning application. The use of Android applications or what is called Smart Telephone currently offers a lot of applications that can improve students' English proficiency. The purpose of this research is to implement android-based applications and get factors that can improve students' language skills. In this research, the method used is qualitative method. In this research, the number of respondents was 26 students and the data collection technique used was to provide daily notes, observations and interviews. The results of the observation show that the use of Android-based application devices can improve students 'ability to pronounce words using English in the category of Enough, Good, as for the factors that can increase students' abilities because Android-based applications can practice more often and can distinguish each word, Students can understand words and can find out errors in pronunciation, Therefore the use of android-based applications can improve students in pronouncing words using English.

Keyword : Students, Speaking, Leaarning Applications.

1 Introduction

Rapid technological changes currently require lecturers to have innovations and strategies in providing learning to their students. Therefore, a lecturer must have the latest strategy regarding the use of information technology in providing classroom teaching. The use of Android-based Information Technology is a solution that can be used today. Learning applications using smart phones or called Android can make it easier for students to learn to speak English well[1][2][3]. This learning focuses on students, the community in the classroom, the creation and delivery of appropriate material. In the era of information convenience, it is necessary to have proficiency in foreign languages. Students must have the opportunity to learn foreign languages properly and correctly[4][5]. In addition, students can learn active skills to speak foreign languages, therefore the need for knowledge of phonetics and phonology. Knowledge of Phonetics and Phonology are abilities related to oral skills[6][7][8]. Therefore, a person who is able to speak English can be seen from the ability to speak in English. Researchers in this case are interested in examining whether the use of smartphone assisted media can be It is hoped that students can learn continuously using Android-based media. In previous studies, the use of Android learning applications can make it easier for students to memorize lessons and can also increase the brain and mental stimuli of students in implementing appropriate applications[9][10]. In this study, the researcher limited the problem only to how the pronunciation in English was. Some of the questions in this study were RQ1: How true is the application of Android-based learning media to improve Students 'ability to pronounce English words, RQ2: Factors that can influence students' ability to pronounce English words using Android-based media

1.1 Benefits of Using Technology in Learning

Information and Communication Technology or called ICT, which tells about technology that has applications to share information and communication from individuals or organizations through time and spatial[11][12][13]. In using technology, users must pay attention to five principles, namely the use of technology can provide opportunities for reading, writing and discussion skills, secondly, the use of technology is expected that students can focus more on learning, the three uses of technology can provide learning time to be repeated. technology allows students to make mistakes when they make mistakes and the five technologies give students the opportunity when exploring speech and making mistakes to correct their speech[14][15]. But when an error occurs in applying technology in the learning process, there are several things that must be followed and considered, namely first that the lecturers can check the application so that before starting learning there is certainty that the application runs well. Lecturers should provide clear rules so that when having a conversation using the student application they do not speak about prohibited words

1.2 Pronunciation in English

The International Phonetic Association (IPA) is an association in reference to an English speech. The transcription is necessary because it is a tool used to transcribe the alphabet in general. a vowel sound and a consonant sound are the definitions of the pronunciation word[16]. In this section, researchers take findings related to technology used in learning English. Related findings that can strengthen this research can be seen as follows.

The first related finding is about how to develop android-based applications. It was developed to support pronunciation in higher education and to implement applications. The results showed that all respondents were able to understand and apply the application well. The equation from previous research with this research is about pronunciation related to android-based applications[17][18][19]. The difference between previous research and this research is not in the application design but in the implementation of existing applications in Android-based learning media.

The second related finding is regarding the teaching of English especially in pronunciation. The results show that the teachers of English as a Second Language believe that pronunciation skills should be integrated with other English skills. Another result shows that the lecturers believe that the focus on pronunciation material is different from the curriculum that is distributed in schools. The similarity of previous studies with this study focused on pronunciation and using applications. The difference between previous research and this research is the application used.

The last related finding is about the term Duo application which is applied in pronunciation[20][21]. The results showed that this application was effective in improving students' pronunciation skills at the basic level. The similarity of previous studies with this study focused on pronunciation using applications on Android. The difference from previous research with this research is that it does not use the Duolingo application as action research, but this research uses the Pronunciation application to improve the pronunciation skills of students in applications that exist in Android-based learning media.

2 Methodology

This research uses a classroom action research method which has 2 cycles and each cycle has 4 stages while the first stage is the preliminary stage, the researcher digs up information about the students' abilities in English pronunciation (Observation). By using the English learning application (Figure 1 and figure 2) the researcher focuses on the English pronunciation contained in the learning application in accordance with the objectives of this study. The next stage, the researcher carried out the planning stage (Planing). At this stage the researcher set the strategy that will be used in learning, studying the syllabus per semester and also taking the minimum score data for students per semester. The next stage is to take action (Action), namely by implementing learning using Android-based teaching media. Observation in class is the fourth stage that is carried out. Researchers see how the learning process is carried out. And the final stage used is reflecting and evaluating learning activities to improve English language skills. This research was conducted at IKIP PGRI Pontianak. Participants in this study were selected using purposive sampling technique. Data collection techniques were carried out by giving tests, field notes, checklists, making observations and conducting direct interviews. The Pre Test and Post Test are carried out in order to know the results of using Android-based learning media.



Fig. 2. Conversations

3 Result and Discussion

In this section the researcher describes the stages previously mentioned, namely planning, observation, reflection, and action. Because the purpose of this study is to improve the ability of students to pronounce sentences by implementing existing applications on Android-based learning media. The research implementation started from Cycle 1 which was carried out in March 2020. The results of the implementation of learning to speak English in Cycle I

consisted of 3 aspects, namely (1) Aspects of Student's fluency in speaking (2) aspects of clarity in speaking and (3) aspects of speaking series students use a communicative approach and describe where they live. The scoring was carried out on 26 students who took part in this activity while the number who completed was 13 students with a score of 74 in category (B) and 13 students who had not finished with category (C) it can be concluded that the completeness of the students in speaking English had not reached maximum completeness. This needs to be done again, both in terms of understanding the use of the application and understanding the material.

KATED ASTECT							
no	no presensi	fluency	clarity	structured	final score	complete	not complete
1	1	3	4	3	83	х	
2	2	2	3	33	67		х
3	3	3	3	3	75	х	
4	4	3	3	3	75	х	
5	5	2	3	3	67		х
6	6	3	3	3	75	х	
7	7	4	3	3	83	х	
8	8	4	3	3	83	х	
9	9	3	3	3	75	х	
10	10	3	3	3	75	х	
11	11	2	2	3	58		х
12	12	3	3	3	75	х	
13	13	2	2	2	50		х
14	14	2	2	3	58		х
15	15	3	2	3	67		х
16	16	2	2	2	50		х
17	17	2	3	3	67		х
18	18	3	3	3	75	х	
19	19	2	3	3	67		х
20	20	2	2	2	50		х
21	21	3	3	3	75	х	
22	22	3	3	3	75	х	
23	23	2	2	2	50		х
24	24	3	3	3	75	х	
25	25	2	2	3	58		х
26	26	2	3	2	58		х
	Total	68	71	103	1766	13	13
	Average Value	2.6	2.7	4.0	67.9		
	Percentage	65%	68%	70%	68%	50%	50%

 Table 1. Result of Implementing Cycle 1

Based on the results of the analysis of the grouping of the highest, middle and low values, the highest student scores fall into the 75-78 value range, if students fall into the middle value range then the range is 66 to 74 and if the students fall into the low value range then it falls into the 50 - 65. The results of the speaking test using student English can be obtained into the middle group reaching 5 people and into the low category of 8 people. Therefore the researcher intends to proceed to the next cycle, namely Cycle 2. In order to achieve a minimum completeness of 74 or more than value 74.

Table 2. Result of Implementing Cycle 2									
no	no Presensi	RATED ASPECT			Einel	Complete	Nat annulate		
		fluency	clarity	structured	Final score	Complete	Not complete		

no	no Presensi	R	ATED ASP	ЕСТ	Final score	Complete	Not complete
1	1	3	4	3	83	х	
2	2	3	3	3	75	х	
3	3	3	3	3	75	х	
4	4	3	3	3	75	х	
5	5	3	3	3	75	х	
6	6	3	4	4	92	х	
7	7	4	3	3	83	х	
8	8	4	4	3	92	х	
9	9	3	3	4	83	х	
10	10	4	4	3	92	х	
11	11	3	3	4	83	х	
12	12	4	4	3	92	х	
13	13	3	4	3	83	х	
14	14	4	3	4	92	х	
15	15	4	3	3	83	х	
16	16	3	4	4	92	х	
17	17	4	4	3	92	х	
18	18	3	4	4	92	х	
19	19	3	3	4	83	х	
20	20	4	3	4	83	х	
21	21	3	4	3	83	х	
22	22	4	4	3	92	х	
23	23	4	3	4	92	х	
24	24	3	4	4	92	х	
25	25	3	4	3	93	х	
26	26	3	3	4	83	Х	
	Total	88	91	89	2235	26	0
	Average Value	3.4	3.5	3.4	85,90		
	Percentage	85%	88%	86%	86%	100%	0%

Cycle 2 is an improvement from cycle 1 referring to the lesson plan to fix the deficiencies in the previous results. The application of speaking in English has changed so that students do not experience boredom. The learning process begins by providing an understanding that cycle 2 is a process of improvement of students who have not previously achieved completeness until they meet the completeness criteria value. The 3 aspects that the previous score had not reached have now reached the percentage of fluency in students reaching 85%, while the value of clarity in speaking reached 88% and the average score of students who could speak in a structured manner was 86%. In general, this second cycle shows an increase in student scores. It can be seen from the table that the average score for the ability to describe in English reaches 85.90%. Student scores reach the highest value if they fall within the range of 91-100 values, the intermediate values fall into the range 81-90 and the lowest scores enter the values 71-80 Students who enter the highest score reach 12 people, the value of students who enter the middle grade reaches 10 people and the value of students who enter the low group reaches 4 people. All indicators have been met. The role of the lecturer in this case is not dominant in providing learning but tends to observe. All students have achieved all completeness both classical and individual completeness. Therefore, researchers no longer need to add further cycles.

4 Conclusion

The improvement of students in speaking English can be done in various ways. English, which has been a boring lesson for some students, can be changed by replacing the learning media that used to be centered on lecturers and students, only listening, now there are media that can help. The use of Android applications can make students more interesting in learning English because in this media students can see and listen to examples of correct English conversations and also Android-based applications can be used over and over again so that students' understanding of word pronunciation is even better. Students who cannot connect to other networks can use this application offline.

Acknowledgement

We would like to thank the IKIP PGRI Pontianak, who have helped a lot in facilitating so that this research can run well and also to other parties so that it can produce good research results, We understand that there are still many things that need to be improved in research this so that it can be even better.

References

- R. Godwin-Jones, "Mobile apps for language learning," *Lang. Learn. Technol.*, vol. 15, no. 2, pp. 2–11, 2011.
- [2] Q. Wu, "Designing a smartphone app to teach English (L2) vocabulary," *Comput. Educ.*, vol. 85, pp. 170–179, 2015.
- [3] R. Gangaiamaran and M. Pasupathi, "Review on use of mobile apps for language learning," *Int. J. Appl. Eng. Res.*, vol. 12, no. 21, pp. 11242–11251, 2017.
- [4] F. Liu and Y. Ding, "Role-play in English language teaching," Asian Soc. Sci., vol. 5, no. 10, pp. 140–143, 2009.
- [5] J. Rubin, "What the" good language learner" can teach us," *TESOL Q.*, pp. 41–51, 1975.
- [6] A. M. B. de Manrique and A. Signorini, "Phonological awareness, spelling and reading abilities in Spanish-speaking children," *Br. J. Educ. Psychol.*, vol. 64, no. 3, pp. 429– 439, 1994.
- [7] H. Rajab, "Developing speaking and writing skills of L1 Arabic EFL learners through teaching of IPA phonetic codes," *Theory Pract. Lang. Stud.*, vol. 3, no. 4, p. 653, 2013.
- [8] A. A. Martínez, J. R. L. Benito, E. A. González, and E. B. Ajuria, "An experience of the application of Augmented Reality to learn English in Infant Education," in 2017 international symposium on computers in education (siie), 2017, pp. 1–6.
- [9] M. Milutinović, A. Labus, V. Stojiljković, Z. Bogdanović, and M. Despotović-Zrakić, "Designing a mobile language learning system based on lightweight learning objects," *Multimed. Tools Appl.*, vol. 74, no. 3, pp. 903–935, 2015.
- [10] T.-H. Nguyen, W.-Y. Hwang, X.-L. Pham, and Z.-H. Ma, "User-Oriented EFL Speaking through Application and Exercise: Instant Speech Translation and Shadowing in Authentic Context," *J. Educ. Technol. Soc.*, vol. 21, no. 4, pp. 129–142, 2018.
- [11] J. Keller and A. Heiko, "The influence of information and communication technology (ICT) on future foresight processes—Results from a Delphi survey," *Technol. Forecast. Soc. Change*, vol. 85, pp. 81–92, 2014.
- [12] D. J. Leu, C. K. Kinzer, J. L. Coiro, and D. W. Cammack, "Toward a theory of new

literacies emerging from the Internet and other information and communication technologies," *Theor. Model. Process. Read.*, vol. 5, no. 1, pp. 1570–1613, 2004.

- [13] V. Peansupap and D. Walker, "Exploratory factors influencing information and communication technology diffusion and adoption within Australian construction organizations: a micro analysis," *Constr. Innov.*, vol. 5, no. 3, pp. 135–157, 2005.
- [14] N. Garrett, "Technology in the service of language learning: Trends and issues," *Mod. Lang. J.*, vol. 75, no. 1, pp. 74–101, 1991.
- [15] G. Kessler, "Student-initiated attention to form in wiki-based collaborative writing," Lang. Learn. Technol., vol. 13, no. 1, pp. 79–95, 2009.
- [16] V.-B. Le and L. Besacier, "Automatic speech recognition for under-resourced languages: application to Vietnamese language," *IEEE Trans. Audio. Speech. Lang. Processing*, vol. 17, no. 8, pp. 1471–1482, 2009.
- [17] M. F. F. Abbas and V. Fathira, "IMPLEMENTATION OF ANDROID APPLICATION TO SOLVE THE STUDENTS'PRONUNCIATION OF ENDING-ED," *ENGLISH Rev.*, vol. 8, no. 2, 2020.
- [18] V. Fathira and S. Utami, "Investigating Learners' Ability on Pronouncing Ending-s/es on the Application Existed in Android," *Pros. CELSciTech*, vol. 4, pp. 10–15, 2019.
- [19] A. B. Retnomurti, N. Hendrawaty, and L. Tiwiyanti, "Development of Android-based Protadroid application in pronunciation practice learning for undergraduate students," *English Rev. J. English Educ.*, vol. 7, no. 2, pp. 67–76, 2019.
- [20] D. Liu and X. Zhu, "The associations of phonological awareness, morphological awareness, orthographic awareness and RAN with Hong Kong Chinese children's literacy performance at word level," Writ. Syst. Res., vol. 8, no. 2, pp. 218–233, 2016.
- [21] R. Morin, "A neglected aspect of the standards: Preparing foreign language Spanish teachers to teach pronunciation," *Foreign Lang. Ann.*, vol. 40, no. 2, pp. 342–360, 2007.