DEVELOPING AN ANDROID-BASED READER DIGITAL APPLICATION TO TEACH READING ALOUD AT SMPN 7 BLITAR

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A B S T R A C T S

Students in junior high school, especially in 7th grade are commonly taught reading aloud on learning English. Based on those reasons, research on developing an android-based reader digital application is really needed to be conducted because technology could create productive and interesting teaching and learning process. The purposes of the study are to find out the process of developing an android-based reader digital application as media to teach reading aloud in 7th grade at SMPN 7 Blitar and to figure out the feasibility of an android-based reader digital application as media to teach reading aloud in 7th grade at SMPN 7 Blitar. In order to develop the product Research and Development (R&D) method by Borg and Gall contained 10 steps was used. And it is reduced to 7 steps because of the seven steps can be developed in the product and there is limited time. The observation did by questionnaires. A technique for collecting data from multiple validator experts. Effectiveness is derived from the results of student surveys. The results of this survey show that the materials expert's overall score was 93.8% and 90% for display layout and design by media professionals. Data collection for a survey of 30 students was also 85%. The result shows that the use of applications in he English learning process is approved by teachers and students. The students also sense more motivated to learn English through the application and show an attractive to use the application as the virtual teacher assistant.

INTRODUCTION

English takes an important role in several fields of living, such as business, trading, communication, and even in the educational field. Therefore, Indonesian Minister of Education assigns English as a required subject in school. In fact, after learning English for years, students still have some difficulties that are difficulty reading sentences and vocabulary, and difficulty understanding concepts. Pemecutan (2023) say listening, speaking, reading, and writing are four skills in English that should be mastered by learners. Junior high

school is one of the levels where students need to learn English with more difficulty. In junior high school, English is taught as the main subject that has aim to improve the students' English proficiency at higher level.

As foreign language in Indonesia, reading skills become the basic skills of learning English because it is an active process of building meaning of words. Besides understanding the text, reading is an actual process of thinking that allows students to use what they might already know, which is also called as a prior knowledge. Reading is a process that is carried out and used by readers to get messages, which the writer wants to convey through the medium of words or written language. A process that requires that a group of words which are a unit will be seen at a glance and the meaning of individual words will be known. If this is not fulfilled, the explicit and implicit messages will be caught or understood, and the reading process will not be carried out properly (Sri, 2023). This is also in line with what was said that reading is one of the language skills that must be developed, because by reading students are able to gain new understanding through the readings they read. Students who have adequate reading skills will be able to absorb various information needed. Therefore, the ability to read has a very important position and students' reading skills are not obtained by themselves, but a teacher is needed who is able to direct and guide them so that this ability can be possessed (Marnita, 2023).

Students in junior high school, especially in 7th grade are commonly taught reading aloud on learning English. At this level, the learning process is focused more on the pronunciation of the words. Seventh grade is the transition from a young learner to a higher level, which means they still have young learner characteristics. Students at this age usually rely on the patterns of their native tongue which they are still learning to use it correctly. Therefore, teachers need innovative learning media to support the learning process to be more attractive and fun for the students, reminding that reading is also a skill that many students encounter difficulties. There are some characteristics of a young learner, there a need for visualization, hard to concentrate for a long time, and a big curiosity about something.

The preliminary study at SMPN 7 Blitar showed that during the pandemic Covid-19 students take a study from home, the student faced more difficulties and was less interested in learning English because the students could not discuss with their friends or ask the teacher as much as they can do while learning face to face at school. The online learning process of reading aloud seemed monotonous because the teacher rarely used media to deliver the material. Questionnaires shared to students, it resulted that 93.5% of students having difficulty learning English. 77.4% of students seem difficulty pronouncing English vocabulary and 82.9% of students agreed if there was teacher assistance in reading aloud the English text. As much as 83.8% of students said that need media for independent study. Especially in learning to read aloud 87.1% of students said they agreed that if reading aloud media assistance was needed to make it easier to explore.

Based on that all reasons, research on developing an android-based reader digital application is really needed to be conducted. Patel (2013) claims that the application of technology could create productive and interesting teaching and learning process. By collaborating the media with technology, the teacher could stimulate students' motivation and interest in the material. In addition, technology-based learning media is also appropriate for the characteristics of junior high school students, junior high school students are included in generation Z where the life of generation Z cannot be separated from smartphones and the internet, and they were born and developed amid technological developments. They are also known as the generation who are good at operating the internet either for entertainment, study, or work. An android-based reader digital application is one of the digital applications made by the researcher that could support reading aloud teaching during the online class.

Several studies with a similar topic are found by the researcher. The first study by Sari (2020) with the tittle "*Development of Android-Based Vorily Education for Improving English Vocabulary for light weight tunagrahita Student on 2020*." Based on the results of the validation test of material experts and media experts, it shows that the vorily educational game is very suitable to be used as a learning medium in improving the English vocabulary of mild mental retardation students in class X SMA with 100% material validation result and 90% media validation results which fall into the very good category. The second study was carried out by (Eliyawati; Agustin, Rika Rafikah; Sya'bandari, Yustika; Putri, 2020) entitled of the study was "*SmartChem: An Android Application for Learning Multiple Representations of Acid-Base Chemistry*". The study was intended to aid students in understanding through media explanations of symbolic, macroscopic, and submicroscopic representations of acid-base material. The validity of the product was assessed by five experts using Aiken's validity index (Aiken's V). The result showed that some parts of SmartChem media needed to be revised, especially in linking submicroscopic level content with symbolism. However, the media could help students understand multiple chemical representations of acids and bases. The last similar study was entitled "*Development of Android Based Educational Games as A Supplementary Media for Vocabulary of Seventh Grade Students in SMP Hasanuddin Kesamben*" which was done by (Sari et al., 2022). The objective of this study was to determine the development and feasibility of supplementary media for educational games based on Android for vocabulary. The researcher used the Borg and Gall procedure which implemented six out of ten stages of development. The data was analyzed by Likert scale. The finding showed the feasibility of the media based on the result of the percentage of expert validation which was 92% media experts with valid or good category and material experts 81.25% with valid or good category. Shortly, it can be concluded that the Android-based educational game media for vocabulary is very interesting to use as supplementary media.

Based on the introduction the researcher forms the problem as how is the process of developing an android-based reader digital application as media to teach reading aloud in 7th grade at SMPN 7 Blitar and how is the result of developing an android-based reader digital application as media to teach reading aloud in 7th grade at SMPN 7 Blitar. The purposes of the study are to find out the process of developing an android-based reader digital application as media to teach reading aloud in 7th grade at SMPN 7 Blitar and to figure out the result feasibility of developing an android-based reader digital application as media to teach reading aloud i 7th grade at SMPN 7 Blitar.

Syafitri et al., (2018) states that media is a tool of language teaching that can contribute to the teaching and learning process. Learning media is a tool used in the learning process to give a contribution to stimulating students' thoughts, feelings, willingness, and attention while encouraging the learning process itself (Puspitarini et al., 2019). Learning media can be divided into three kinds of media: graphical media, audio media, and projective media (Asni Syafitri, et al., 2018). First, graphical media are media in verbal communication symbols like pictures, posters, maps, and diagrams. Second, audio-media is a media that uses verbal or non-verbal auditory message symbols like radio and tape. The last kind of media is projective media which could present visual simulation, and it is like graphical media. There are several functions of the media, namely the first is to generate motivation, enthusiasm for learning where students become more interested in learning, which was previously saturated with monotonous learning, becomes learning that is fun because of the learning media. Second, reviewing the material that has been studied so that the child does not forget the previous material. Third, providing a stimulus to learn, students are given stimulation as a way to make students think more with high curiosity (Fadilah & Kanya, 2023).

Digital application is software which is also known as an application program that combines certain features in a way that is accessible to users (Gunari, Alfian & Setiawan, 2016). Shortly, it is a program of software that is running within the computer or other digital tools in the form of a web browser, email program, game, or other application. Moreover, an android-based digital reader application is one of the digital applications made by the researcher that could support reading aloud teaching during the online class. It is an application that students could get from the link that the researcher gives that is provided with several pictures, explanations, and sounds of animal material. Moreover, a mobile or digital application is a program that runs on a mobile device and has a function to perform specific tasks for the users. One of the learning media that is digital-based or using mobile tools is an android-based reader application that will be developed in this study.

Android is a collection of software for mobile devices which includes the operating system, middleware, and major mobile applications (Arianto, 2018). According to (Safaat, 2012), Android is an operating system used on Android Linux-based smartphones and tablet computers consisting of an operating system, middleware, and main applications. Like Linux, Android also provides an open source or so-called Open Source which can be used by developers to create software for their own applications. Currently, the Android operating system is not only running on mobile devices such as phones and tablets, but also on televisions and even watches. Android apps are natively built using Java programming language, but in its development, we can use other programming languages increase Android applications.

Reading aloud is an activity or activity that is a means for teachers, students, or readers together with other people or listeners to capture and understand information, thoughts, and feelings of an author. Reading aloud can be done alone or with other people. Read done through the process of voicing the symbols written in the reading when done out loud (Ningtyas, 2020).

Teaching reading is not an easy task, as teachers need to have the appropriate skills and abilities to improve their students' reading performance. Fatimah (2023) states that the teacher is an important factor affecting the task and quality of learning. This means that everything a teacher does affects a student's grades, so the teacher needs to teach the student's reading comprehension and manage their attitude toward the student. When reading lessons, teachers need to support and teach textbooks so that they can learn most effectively. When reading aloud, the teacher greets the student, confirms attendance, brainstorms, determines the meaning of the word, and uses it in the sentence. When reading, the teacher reads the text, answers questions based on the text, determine the words, meanings, and verbs used in the text, and reads the same text. When reviewing, the teacher asks the student what difficulties they face in the teaching and learning process, draws conclusions about the material, gives the student homework, and greets them.

RESEARCH METHOD

Utilizing the development method was in this study. In this instance, researcher were utilizing Android-based media. Researcher would discuss the outcomes of employing this android-based media in teaching children to listen to and mimic words that depict animals. This called for researcher tools. Researcher used observation logs and questionnaires as their tools. To acquire an overview, both of these tools were used. Use The use of an Android-based digital reader application was implemented, and a survey was used to learn what the students thought about using Android-based media applications both inside and outside of the classroom.

Research Design

The product that will be developed in this study is an android-based digital reader application used to improve the reading ability of seventh grade students at SMPN 7 Blitar. The researcher will use the Research and Development (R&D) method by Borg and Gall which contained 10 steps. It is research and information collecting, planning, developing a preliminary form of product, preliminary field testing, main product revision, main field testing, operational product revision, operational field testing, final product revision, and dissemination and implementation. From all those ten steps, the researcher only does six of them during this research, because of the limited time and similarity on some steps. The steps used by the researcher there are research and information collecting, planning, developing preliminary, main field testing, final product revision, and dissemination and implementation. (Gall and Borg, 2002).
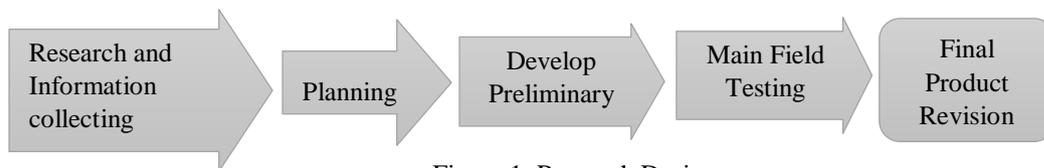
Figure 1. Research Design

Population and Sample

The population of this study consisted of 31 pupils in grade 7 at SMPN 7 Blitar. The only public school in Blitar City's Kepanjenlor neighborhood is SMPN 7 Blitar. The length of the schooling term, which runs from class VII to class IX, is three academic years, the same as junior high schools in Indonesia generally. Students in grade 7 at SMPN 7 Blitar make up the sample from one grade level since they are consistent with the researcher's output.

Instruments

This study uses a questionnaire method. The questionnaire is data collection which is done by giving questions or statements to respondents to answer them (Sugiyono, 2015). The questionnaire technique is used to collect data in determining the feasibility of the product. The questionnaire sheet will be given to the media expert, material expert, and the 7th grades students as the research subject. Furthermore, there are two kinds of questionnaires used, namely the needs analysis questionnaire conducted in the preliminary study, and also the student response questionnaire given after the field trial. in a reading aloud course.

Data Analysis

From the data obtained, the researcher designs the product related to the problems found previously in the preliminary study. This stage was called develop preliminary step. At this stage, the product that would be designed was an android-based digital reader application. After the product was designed, the researcher conducted product trials to determine its effectiveness. Trials could be carried out in one class 7th class of SMPN 7 Blitar. This step was called main field testing. In the last step of R&D research the researcher revised the product as an appropriate medium for 7th grade students of SMPN 7 Blitar.

The data obtained by the researcher was in the form of information about learning in the classroom and the obstacles that exist in the classroom, then information about the difficulties of learning English and achievements, and information about the validity of the product in terms of materials and media, the latter related to student responses to the product. Data sources could be interpreted from where the data was obtained. The data used in this study was data obtained by researchers when conducting interviews with English subject teachers and homeroom teachers for grade 7th and researchers conducting several surveys to

grade 7th students in the form of google form, as for the validator material and validator design. The data was collected by questionnaire and interview.

The data used in this research contained of two data types. There were qualitative data and quantitative data. The data analysis was processed in the qualitative method by classifying and categorizing data based on several themes according to the focus of the research. Qualitative analysis still used words that were usually organized into extended text, and did not use mathematical calculations or statistics as analytical tools. Quantitative data was used to test all instrument questionnaires which used the Likert scale.

RESEARCH FINDINGS AND DISCUSSION
Research Findings

For using an application, it has instructions and also the theme of the contents of the application. Table 1 explains what the contents of the application are and also an explanation of the topics used.

Table 1
Content of Material

| No	Topic	Instruction	Picture
1.	Word	Listen and imitate the words associated with the pictures, following the correct pronunciation	
2.	Phrase	Listen and imitate the phrase associated with the pictures, following the correct pronunciation	**Bird, Cat, Crocodile, Dog, Fish, Lion, Mouse, Frog**
3.	Simple Sentence	Listen and imitate the sentence associated with the pictures, following the correct pronunciation	
4.	Simple Paragraph	Listen and imitate the paraghraph associated with the pictures, following the correct pronunciation	

Picture 1. Main View Application
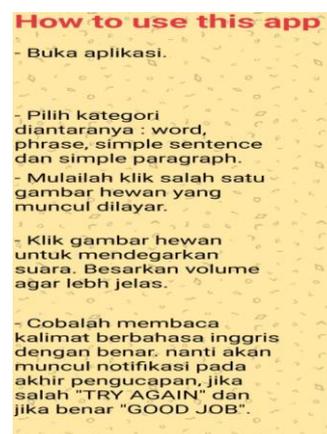
Picture 2. Second View Application

Picture 3. Menu Display

Picture 4. Animal Choice

Picture 5. Text Word

Picture 6. Text Phrase
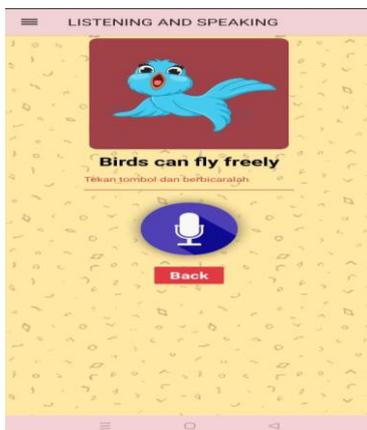
Picture 7. Simple Sentence
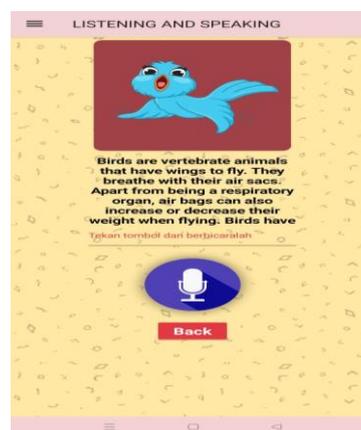
Picture 8. Simple Paragraph

After the initial design, the products are first verified by experts. It was validation assessed by giving a questionnaire to her two validators, a media expert and a material expert. This rating measures questionnaire analysis from expert ratings using a Likert scale. Questionnaire results were calculated using the Arikunto formula (2009).

Table 2
Appropriate of the Content

No	Items	Score
1.	Material corresponds to curriculum 2013	100%
2.	Relationship between material and core competencies	75%
3.	Relevance of material to learning objectives	100%
4.	Material is systematically presented	100%
5.	Clear and specific material	75%
6.	Brief Comprehensible Text	100%
7.	Effective Language	100%
8.	suitability media with material.	100%
	Total	**93,8%**

Source: (Angket Validasi Ahli Materi, 2022)

From table 2, it show that the overall effectiveness score of the product's material verification is 93.8%. This means that this Android-based learning medium falls into a "Strongly Valid" category when it comes to materials. This indicates that the overall material presented in this learning medium is suitable for use in the teaching and learning process without revision, and according to the learning objectives, the level of student competence possessed by the student. Requires tailored and interactive student learning. The manner in which learning media such as mobile phones are used, the relevant curriculum goals and learning objectives, and the format of presentation in these learning media also motivate students to learn.

Table 3
Appropriate of the Layout

No	Items	Score
1.	Attractive image design	75%
2.	Animal design attraction	100%
3.	Color suitability on media	75%
4.	Image/illustrations and text clarity	75%
5.	Simple image	100%
6.	Media layout suitability	75%
7.	Media background suitability	75%
8.	Ease of use	100%
9.	Suitability of the design with the material being studied	100%
10.	This media helps stimulate students in read and listen to English texts	100%
11.	The media used is in accordance with the indicators	75%
12.	Media according to learning objectives	100%
13.	This media makes it easier for students to read English texts	100%
14.	This media motivates students in learning english, especially reading	100%
15.	This media helps students in understanding the material	100%
	TOTAL	**90%**

Source: (Angket Validasi Ahli Media, 2022)

From data a survey completed by media professionals showed a score of 90%, indicating that this Android-based learning medium can be used in a "Strongly Valid" category. This learning medium can be used directly without making revisions. Depending on the learning objectives and the practicality of the learning the student receives. These learning media also help students with intensive learning in the form of applications that can be installed on their respective mobile phones so that students can study repeatedly.

After validating several validators with satisfactory results, the learning media can be directly tested on students. Researchers tested this learning medium on September 8, 2022, with a total of 30 in 7th grade students from SMPN 7 Blitar City. This experiment was conducted to confirm the effectiveness and practicality of the media in conducting learning in

the classroom. During the test phase, the effectiveness of this learning medium is confirmed by the results of questionnaires given to the students and calculations by the Arikunto formula (2009).

Table 4
Students questionnaire

No	Items	Score
1.	This media makes me interested in understanding the material	83%
2.	This media makes it easier for me to read and listen to English texts	89%
3.	Attractive design, keeps me motivated to learn	80%
4.	I feel actively involved in learning with this media	83%
5.	The material presented is consistent and easy to understand	85%
6.	This media motivates me to learn English	88%
7.	Interesting material presented	83%
8.	The interesting material presented Improve my knowledge	90%
9.	The design of this medium is attractive and harmonious	81%
10.	The instructions of this medium are very clear	87%
	TOTAL	**85%**

Source: (Angket Siswa, 2022)

Table 4 explains the results obtained from student questionnaires of 85%. In the 2009 Arikunto formula, it is included in the "Strongly Valid" category. This learning media is enough to make students interested in the form of display. So that it makes students motivated to learn to read English vocabulary with correct speech. They also said that this learning media is in accordance with the current learning objectives. They prefer to learn to use cell phones because according to them, cell phones can be carried wherever they go. They say this media is very suitable and in accordance with the learning period or age.

Discussion

This learning media can be accessed from any Android phone with 1 GB RAM. Using this medium is not too difficult to access. However, since this is an application, it requires the use of the Internet to listen to the vocabulary in the application and for students to imitate it. The application can also be accessed online, but you can only view animal pictures and read animal descriptions. This statement is consistent with the statement from Safitri & Kabiba (2020) that using picture media, teachers feel that they are facilitated in delivering material in the teaching and learning process, besides that students also feel interested in participating in the learning process, learning is not boring because students directly see the themes or topics being discussed by the teacher through pictures, so students can understand the material conveyed by the teacher. Media images are presented in accordance with the conditions and abilities of students. In addition, the use of media images will increase the enthusiasm of students in participating in the learning process in the classroom.

Using the reader digital application required an attractive application so that the students would like to learn with the application. In the other hand, the contents of the application have to easily access and understood. Most of all, the application will be considered as a successful application if there are correlation between the material, the appearance, and the degree of accessibility. And these learning media successfully combine materials with a creative context and an appealing look to help students become more engaged in learning English. Especially when it comes to reading English vocabulary. This learning medium is devoted to discussing the descriptions of several animals.

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Contributions and suggestions from students and teachers. Since the application only contains animal descriptions in English and not Indonesian, the student suggested translating this application into Indonesian as well. As well as the addition of animals that are in the application. Teachers should also make suggestions about these learning media and give quizzes or questions so that students can listen and imitate as well as ask some questions. This is in line with what was said by Andari (2020) who stated that game-based learning is a tool that can help students solve problems, improve critical thinking and make an assessment in the learning process.

In this subsection, the author(s) comes to the main part of the article. This subsection serves as the answer to the question(s) stated in the introduction section. To support the answer, the author(s) explain by showing the relevance of the findings described earlier in this section. The author(s) is also encouraged to show how the answer(s) fits with existing knowledge about the topic. Moreover, the author(s) can use this space to convey his/her interpretations and opinions, which include the author(s)'s justification towards the essential findings, suggestions for future study, and the clinical implications of the findings. The discussion should be developed concisely whilst still clearly and totally declaring, supporting, explaining, and defending the answers to the questions as well as other important and relevant issues. The main principle is to be punctual and focused in delivering a particular message. Bear in mind that this subsection accommodates commentary and not a reiteration of the findings.

CONCLUSION

The result of the research showed that basically the use of applications to help the learning process is a very important thing today. this relates to the condition of students today who cannot be away from technology. The development of the times certainly demands developments from various sides, including education and learning systems. the use of an android-based application for reading in English lessons for students at SMPN 7 Blitar is the right decision to adapt to the needs of teachers and students. So far, the application was approved by the teacher, the professionals, and the students of course. The application can attract the teacher and students through its visual design and the material contained on it. The teacher and the professional assumed that there is no revision needed on the application, but the students said that there is a bit of revision needed on the application. Overall, the application was approved by all stakeholders on the SMPN 7 Blitar to help the English learning process.

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