DESIGNING READING APPLICATIONS (R-APPS) FOR SENIOR HIGH SCHOOL

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Abstrak

Tujuan utama dari penelitian ini adalah untuk mengeksplorasi hasil penggunaan R-Aps sebagai alat baru yang membantu meningkatkan motivasi siswa di kelas 11. Penelitian ini didasarkan pada situasi dimana siswa harus melakukan pembelajaran di rumah, maka dikembangkan aplikasi membaca agar siswa memiliki peningkatan motivasi belajar. Sampel populasi siswa dalam penelitian ini adalah seluruh siswa kelas XI MA Mambaul Ulum Megaluh Jombang. Instrumen yang digunakan dalam penelitian ini adalah 1) lembar validasi oleh Ahli Validator 2) wawancara guru 3) angket tanggapan siswa. Dari hasil perhitungan rata-rata di atas diperoleh hasil sebesar 3,97 yang termasuk dalam kategori baik sehingga dapat disimpulkan bahwa penggunaan media pembelajaran R-Apps efektif. Dan Mengenai analisis data, mean, persentase, dan skor total. Hasil penelitian menunjukkan bahwa 1) kemampuan pemahaman bacaan bahasa Inggris siswa meningkat secara signifikan setelah pembelajaran dengan aplikasi membaca 2) Aplikasi Membaca layak sebagai sarana baru untuk meningkatkan motivasi siswa 3) hasil penelitian menunjukkan bahwa media memperoleh kriteria baik dengan skor 3,97 pada skala Linkert yang menunjukkan bahwa media tersebut layak untuk diimplementasikan di dalam kelas.
Katakunci: *Media Pembelajaran; Kemampuan Membaca; R&D; Model ADDIE*

Abstract

The main objective of this research is to explore the result of the use of R-Aps as a new tool which helps increasing students' motivation in 11th Grade. The study is based on a situation where students have to do learning at home, then a reading application is developed for students to have an increase in learning motivation. The sample of the students' population for this study is all of 11th in MA Mambaul Ulum Megaluh Jombang. The instruments used in this study were 1) Validation sheet by Validator Expert 2) teacher interview 3) a questionnaire of the students' responses. From the calculation of the above-average obtained results of 3.97 which belonged to the category of good so that could be concluded that the use of learning media R-Apps is effective. And Regarding the data analysis, mean, percentage, and total score. The result indicated that 1) the students' English reading comprehension ability increased significantly after learning with reading application 2) Reading Application is worthy as a new tool to increase student motivation 3) the results of the study showed that the media obtained good criteria with a score of 3.97 on the Linkert scale which showed that the media was feasible to be implemented in the classroom.
Keywords: *Learning Media; Reading Skills; R&D; ADDIE Model*

INTRODUCTION

In the pandemic era, students do learn from home or commonly referred to as online learning. Both learning materials and learning assignments are delivered online, for a while students do not experience obstacles but along with online learning that lasts for a long-time students begin to experience obstacles in online learning. Students get difficulties in learning the materials provided by the teacher. Parents also complain about the students' lack of understanding in learning and make students less maximal in learning at home.

It takes some refreshments in the presentation of learning materials so that students do not feel bored and become more interested in what is being learned. However, this becomes hampered when the learning media used must be digital/electronic-based. This is also an obstacle in MA of Mambaul Ulum Megaluh which during the pandemic implemented online learning, students become easily bored and make use of gadgets inappropriately. In the industrial era 4.0, digital technology can have a bad impact on the world of education if its use is not appropriate.

Therefore, understanding the principles and factors that influence the effectiveness of digital technology in learning is very important for a teacher.

Some studies have shown that technology exerts many positive influences on language learning such as reading using video. The Internet has been combined as a tool to complement language learning activities One of the technology media that is often used today is applications on mobile phones. The results showed that students who interacted a lot with the application on mobile phones could better understand the content of the reading text (Khusniyah & Hakim, 2019).

From the results of these studies, the researchers are trying to innovate learning media for English language learning XI Class at MA of Mambaul Ulum Megaluh to increase interest and motivate students to study at home with a new variation in learning media.

METHOD

This research is Research and Development (R&D) using the model development method ADDIE (Assume, Design, Development, Implementation, Evaluation) which aims to develop interactive game learning media based on PowerPoint Hyperlink technology that is well qualified by paying

attention to three aspects of quality that are valid, practical, and effective because this research and development model is more rational and more complete than other models according to product development measures. The ADDIE model was developed by Dick and Carry. The stages that should be done in the research in the ADDIE model is:

Picture 3.1: ADDIE Model Planning and Development

Analysis

At this stage, the main activity is to analyze the need for the development of new learning models/methods and analyze the feasibility and requirements of the development of new learning models/methods. The development of new learning methods is initiated by problems/constraints in the model/method of learning that has been applied. Problems can occur because existing learning models/methods are no longer relevant to the needs of the target, learning environment, technology,

characteristics of learners. After problem analysis of the need for the development of new learning models/methods, the researcher also needs to analyze the feasibility and requirements of the development of the new learning model/method.

The analysis process for example is done by answering the following questions: (1) whether the new model/method is able to solve the learning problems faced, (2) whether the new model/method has facility support to implement; (3) whether the lecturer or teacher is able to apply the new learning model/method In this analysis, there should not be a good model/method design but it cannot be applied because of some limitations such as no tools or teachers are unable to implement it. Analysis of new learning methods needs to be done to determine the feasibility of the learning method is applied.

Design

In the design of learning models/methods, the design stage has similarities to designing learning media. This activity is a systematic process that starts from setting learning goals, designing learning media, designing learning materials, and evaluating tools of learning

outcomes. The design of this learning model/method is still conceptual and will underlie the next development process.

Development

Development in ADDIE model contains product design realization activities. In the design phase, a conceptual framework has been drawn up for the implementation of new learning models/methods. In the development stage, the conceptual framework is realized into a product that is ready to be implemented. For example, if at the design stage has been designed the use of new models/methods that are still conceptual, then at the development stage prepared or made learning devices with the new model/method such as new learning media.

Implementation

At this stage, the design and methods that have been developed are implemented in real situations, namely in the classroom. During implementation, the developed learning media design is applied to the actual conditions. The material is delivered by the new learning media developed. After the application of the method is then carried out an initial

evaluation to give feedback on the implementation of the next model/method.

Evaluation

At this stage implemented designs and methods that have been developed in a real situation that is in the classroom. During implementation, the developed learning media design is applied to the actual conditions. The material is delivered by the new learning media developed. After the implementation of the method is then carried out an initial evaluation to give feedback on the implementation of the next model/method.

Subject, Place, and Time of Research

This development research subject is 11th-grade students at MA Mambaul Ulum Megaluh. The place and time of this research were conducted from March 17th 2021 until April 17th 2021 in MA Mambaul Ulum Megaluh.

Data Type

In this development research, the data collected consists of two kinds:

1. Data on the development process of R-Apps with material Kinds of Text class 11 by the predetermined

procedure. This data comes from the assessment and input of material experts, media experts, and English teachers.

2. Data on student responses to Student Worksheet from English learning resources with Kinds of Text material in 11th grade based on student's trials.

Need Analysis

In this chapter, the researcher identified the needs of 11th-grade students at MA Mambaul Ulum Megaluh by interviewing their English teachers. The purpose of the interview is to find students' difficulties in English learning materials. The researcher conducted an interview with English teachers on 11th February 2021 at MA Mambaul Ulum Megaluh. The researcher sees if these interviews are enough to find students' difficulties in the English learning process. From interviews, the researcher can conclude that students need a variety of learning media, especially electronic-based learning.

After the researcher discovered the difficulties experienced by students in learning English, the researcher decided to develop Reading Games based on Hyperlink PowerPoint to help students when learning online at home so that learning can still run effectively and interestingly.

Expert Validation

In developing these Reading Applications, the researcher needs validation in terms of materials and media to ensure that reading games are good enough in terms of materials and media. Then it takes material experts and media experts to assess and validate the product. The material validator of this product is Mrs. Binti Khalwiatin, S.Pd as an English subject teacher at MA Al-Bairuny Jombang. The media validator of this application is Mrs. Iin Baroroh Ma'arif, S.S.M.Pd as learning media development's lecturer in English Education Department of KH. A. Wahab Hasbullah University Tambakberas Jombang.

Data analysis technique

This research uses descriptive data analysis with one variable, namely the quality of Reading Games learning media for 11th-grade students at MA Mambaul Ulum Megaluh with good Reading Games criteria that have been lowered in the assessment grid. The steps of data analysis are as follows:

RESULT AND DISCUSSION

The result of developing explained about the development of ICT-based learning media through validation trials by media experts and material experts. In addition, the media also identified the strength and the weakness and the solutions that would be provided.

Profile of Validators

In the development phase, the media was developed by the researcher would be assessed by a media expert and material expert to measure the feasibility level of the media before it was implemented to students in classroom learning.

The validation of learning media that had been developed by the researcher was tested by two experts who test product feasibility and material feasibility. Media validation was assessed by Mrs. Iin Baroroh S, S., M. Pd as one of English lecturers and also as the head of the English Language Education Study Program in KH. A. Wahab Hasbullah University Tambakberas Jombang. The validation of material was assessed by Mrs. Binti Khalwiatin, S. Pd as one of the teachers of English subjects in grade XI at MA Al-Bairuny Jombang.

Expert Validation

In the development stage, the learning media was developed by the researcher passed the validation stage of experts who were aimed to provide advice and improvements to the developed media. Through questionnaires used in validation tests, the following steps analysis of the feasibility of ICT learning media was conducted using the Likert scale by Sugiyono (2013) by using formula followed:

Table 1. Likert Scale

Criteria	Score
Very Good	5
Good	4
Enough	3
Low	2
Very Low	1

The data calculated with the formula:

$$xi = \frac{\sum x}{N}$$

Description:

Xi   = Average score (mean)

$\sum x$ = Value score

N   = Number of assessment criteria

The following were the results of validation of media and materials by experts:

1. Media validation assessment criteria included audio-visual aspects that included in terms of images, writing aspects and conformity of media design to criteria. Validation of ICT-based learning media by media expert through the number of value scores obtained was then calculated as follows:

$$xi = \frac{\sum x}{N} = \frac{56}{17} = \mathbf{3.29}$$

The media expert's average score of **3.29** meant it fell into the sufficient category. Based on the assessment criteria, media experts provided some suggestions and improvements such as giving back sound on the product so as not too monotonous and also changing the font model to make it looked easier to read by the students. To provide objective descriptions on competency slid so that students could easily understand the goals of media creation. To describe the user's goal subject on the initial slid. And put the competency icons above to suppress the main goal of the material contained in the learning media.

The validation of the second assessment was the assessment of materials by material experts with assessment criteria assessed from the learning aspect which included the suitability of the learning material with basic competencies and the suitability of the use of vocabulary and grammar. Validation of technology-based learning media by material experts through the number of score scores obtained was then calculated as follows:

$$xi = \frac{\sum x}{N} = \frac{66}{16} = \mathbf{4.12}$$

The average material expert score of **4.12** with a rusty amount fell into the good category. The conclusion of material validation results by material experts was a learning medium worthy to be tested on students.

The Result of Media Development

Referring to the results of validation assessments by experts with some suggestions and improvements was made, the following were the media details before and after revision.

. **Table 2. Media Development**

Name	Questions													Total Score
	1	2	3	4	5	6	7	8	9	10	11	12	13	
A. P S.	4	4	4	5	5	4	4	4	4	3	3	4	5	53
A. B. R	4	5	4	5	4	4	4	4	3	4	4	3	4	52
D. M	4	4	5	4	3	4	4	3	4	4	3	4	5	51
D. N. S	4	4	5	4	4	4	3	3	3	4	3	4	4	49

D. A	4	4	4	3	4	4	5	3	3	4	3	4	4	49
E. S. M	4	4	4	5	3	5	3	3	4	4	3	4	3	49
E. A. P	3	4	4	4	4	3	4	4	3	4	4	4	4	49
I. A	4	3	4	4	5	5	4	4	4	3	4	4	3	51
I. Z	4	4	4	5	5	4	4	4	4	4	4	4	4	54
K. S	4	4	4	3	3	4	4	5	4	4	2	4	4	49
L. S	4	4	4	5	4	4	4	4	4	3	2	4	4	50
L. W. H.	4	5	4	3	4	3	4	4	4	4	4	4	5	52
M. J	5	4	4	5	5	5	4	4	4	4	5	4	5	58
M. S. H	5	4	5	3	3	4	4	5	4	4	4	4	4	53
N. M	5	5	4	4	4	5	4	4	4	4	4	4	3	54
N. T. A	4	5	4	4	4	4	4	4	5	4	4	4	4	54
N. P. R	4	4	5	4	4	5	4	4	4	4	4	4	4	54
P. A. A	4	4	4	4	3	3	4	4	4	4	4	4	4	50
Total														**931**

The Result of Implementation

The implementation stage was to apply the learning media developed by the researcher to students of 11th grade MA Mambaul Ulum Megaluh. After the media was implemented researcher gave a questionnaire response to students who aimed to know the opinions and responses of students after the use of learning media in English learning in class. The students' response questionnaire covered the effectiveness of the use of technology-based learning media. 18 students filled out the response questionnaire that would be counted using the Likert scale to get

conclusions about the effectiveness of the media as follows:

Table 2. Likert Scale

Criteria	Score
Very Good	5
Good	4
Enough	3
Low	2
Very Low	1

The data was calculated with the formula:

$$xi = \frac{\sum x}{N}$$

Description:

Xi = Average score (mean)

$\sum x$ = Value score

N = Number of assessment criteria

The results of the student response questionnaire were contained in the data below:

From the table above could be seen the results of the questionnaire responses distributed to 18 students. Then the results were accumulated to get the overall result of the total response score of 18 students. The total value would be calculated on average using the Likert scale formula to determine the feasibility and effectiveness of the media. First of all, the total scores of all students would

be submitted then be divided by the number of students:

$$Average\ Score$$
$$= \frac{Total\ Score}{Number\ of\ participans} = \frac{931}{18}$$
$$= 51.72$$

The average result of the number of students' grades and the number of students was **51.72** the results would be recalculated to find the average to be divided by the number of questionnaires:

$$Average\ Score$$
$$= \frac{Total\ Score}{Number\ of\ quistinaires} = \frac{51.72}{13}$$
$$= 4.02$$

From the calculation of the above-average obtained results of **3.97** which belonged to the category of good could be concluded that the use of learning media R-Apps effective if it was applied in English learning of 11th class.

Strength and Weakness

The process of ICT-based media development certainly had advantages and disadvantages. The researcher explained the advantages and disadvantages of ICT-based media that had been developed as follows:

The Strength of Reading Apps

The advantages of android-based media were technology-based media that could facilitate the delivery of classroom learning, especially English language learning. In addition, android-based learning media was developed by the researcher could be transformed into an application that could be installed through a smartphone that could be accessed by the students so that it could be used anytime and anywhere. Learning media could be used in online learning or classroom learning. In addition, when having been viewed in terms of the media display, learning media had a design that could increase students' attractiveness to the learning process.

If viewed in terms of making this media was not too difficult and could be made by the teachers who were still not very experts in the field of IT. Creating this media used Microsoft PowerPoint which was often used in everyday life and included in low-cost technologies. Therefore, the creation of this media could be said not too difficult and required creativity in designing interesting images.

The Weakness of Reading Apps

The weakness of the learning media was developed by the researcher was the absence of variations in the display menu on the media. The learning media was developed by the

researcher could be made more interesting and more innovative with many views then the media should be able to be created with many menu options by combining several more adequate supporting applications.

CONCLUSION AND SUGGESTION
Conclusion

ICT-based learning media development using Microsoft PowerPoint for 11th-grade MA Mambaul Ulum Megaluh Jombang students using Research and Development using ADDIE with steps: Analysis, Design, Development, Implementation, and Evaluation. At the analysis stage, the researcher conducted a needs analysis through interviews with English teachers and questionnaires to students to find out the use of technology-based media in learning. In the second stage designs, the researcher was started by creating concepts and designs of learning media that want to be developed. The third was the development stage which was a validation test by material experts and media experts in learning. The fourth was the implementation phase of students' media with the application of using learning media developed in the form of R-Apps in learning. The last stage was an evaluation conducted to determine the shortcomings in the media was developed by the researcher.

The feasibility of the media was developed by the researcher for grade 11th-students of MA Mambaul Ulum Megaluh Jombang based on media experts and material experts could be concluded that android-based media deserves to be used as a learning medium that was applied in learning in English language class. In addition, students also argued that reading application learning media that was assessed through response questionnaires shows that the media in the category was good and worthy of implementation. In addition, some students became interested and enthusiastic about using android-based learning media in online learning.

Suggestion

Based on the advantages and disadvantages of the R-Apps developed, the researcher provided some suggestions for the development of the next product, namely in the manufacture of technology-based learning media was expected to provide better and interesting variations in terms of design and variety of media. To give students a better look.

The use of technology in the world of education, especially as a medium of learning became important in this increasingly modern era. The rapid development of technology had to be accompanied by the development of students so that students did not lag with the advancement of technology

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