

Development of Android-Based Learning Media in Class X MA Arabic Language Subjects

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Abstract

This research is motivated by the minimal use of learning media to assist the learning process at MAS Muhammadiyah Lakitan due to the limited availability of learning media. Apart from that, teachers have never used Android-based learning media as support in the learning process. The aim of this research is to produce Android-based learning media that complies with development procedures and uses standard criteria of validity and practicality so that it becomes appropriate media and can assist in the learning process. The type of research used is research and development which is called Research and Development (R&D) and uses the 4-D (Four D) development model which consists of four stages, namely Define, Design (planning), Development (development) and Dissemination has been carried out in a structured and systematic manner. The validity test was carried out on 3 people, namely 2 media validators and 1 material validator. The practicality test was carried out on 20 respondents, namely class X science students at MAS Muhammadiyah Lakitan. Based on the results of the assessment by the two media validators, they obtained an average score of 4.94 which was categorized as "very valid". The results of the validation assessment from the material validator obtained an average of 4.78 which was categorized as "very valid". The results of product practicality testing by students obtained an average of 4.05 which was categorized as "practical". So based on the results of the validity and practicality assessment, it can be concluded that the media is valid and practical for use in the Arabic language learning process.

Abstrak

Penelitian ini dilatar belakangi oleh minimnya penggunaan media pembelajaran dalam membantu proses pembelajaran di MA Swasta Muhammadiyah Lakitan karena terbatasnya ketersediaan media pembelajaran. Selain itu, guru juga belum pernah menggunakan media pembelajaran berbasis *android* sebagai penunjang dalam proses pembelajaran. Tujuan dilakukan penelitian ini adalah untuk menghasilkan media pembelajaran berbasis *android* yang sesuai dengan prosedur pengembangan serta menggunakan standar kriteria kevalidan dan kepraktisan sehingga menjadi suatu media yang sesuai dan dapat membantu dalam proses pembelajaran. Jenis penelitian yang digunakan yaitu penelitian dan pengembangan yang disebut dengan istilah *Research and Development (R&D)* serta menggunakan model pengembangan 4-D (*Four D*) yang terdiri dari empat tahapan yaitu *Define* (pendefinisian), *Design* (perencanaan), *Development* (pengembangan) dan *Dessemination* (diseminasi) yang telah dilakukan secara terstruktur dan sistematis. Uji validitas dilakukan kepada 3 orang yaitu 2 validator media dan 1 validator materi. Uji praktikalitas dilakukan kepada 20 orang responden yaitu peserta didik kelas X IPA di MA Swasta Muhammadiyah Lakitan. Berdasarkan hasil penilaian oleh kedua validator media memperoleh skor rata-rata sebesar 4,94 yang dikategorikan "sangat valid". Hasil validasi penilaian dari validator materi memperoleh rata-rata sebesar 4,78 yang dikategorikan "sangat valid". Hasil uji praktikalitas produk oleh peserta didik memperoleh rata-rata sebesar 4,05 yang dikategorikan "praktis". Jadi berdasarkan hasil penilaian validitas dan praktikalitas maka dapat disimpulkan bahwa media sudah valid dan praktis untuk digunakan dalam proses pembelajaran Bahasa Arab.

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1. INTRODUCTION

Technological developments from year to year have progressed very rapidly. The development of this technology has influenced various fields, one of which is education. Technological developments in the field of education have resulted in various learning practices and concepts that utilize technology as a learning medium.

The learning design process does not only involve teachers and students, but also involves components that can support the process of learning activities. The components that must be fulfilled include educators, students, learning materials, learning methods, learning media, and tools/facilities & infrastructure (Zen, Z., & Syafril, 2017). One important component in learning is learning media. Learning media is a tool or means used to provide information from the sender of information (educator) to the recipient of information (students) to make it easier for students to know/learn something (Akbar, 2017). According to Mardiansyah and Dedi Supendra (2023) learning media is an intermediary whose position has a role in supporting the success of an ongoing learning process.

The use of digital devices is now not only a necessity but has become an important part that must be present during the learning process. This digital device is of course used by educators in the learning process. Currently, educators are required to be creative and innovative by utilizing

technology such as smartphones, computers, internet and e-mail in the learning process (Yuniarsi et al, 2018). However, there are still many educators who do not utilize technology in classroom learning.

Arabic is the second international language after English. Language is a communication tool used by every group of people. Language can also be interpreted as a number of rules of speech habits used to communicate between individuals in a community, and used in their life affairs (Imam Makruf, 2009). As a good Arabic language, both classical and modern, it has a very important role in the fields of Islamic religion, science and international relations. Its role is also very important in fostering and developing national culture.

When conducting observations at MAS Muhammadiyah Lakitan, researchers found minimal use of learning media because the media used by teachers in teaching Arabic in class was still limited. The only Arabic language learning media available is in the form of Arabic textbooks. Apart from that, Arabic textbooks also have several shortcomings, including: monotonous, abstract and requires conceptualization to be able to understand the material in the textbook so that students experience difficulties when they want to repeat learning at home.

Apart from the problems above, most students own smartphones personally. This is in line with the opinion of Komariah et al (2018) who state that there is the potential for students to bring smartphones to school. On the other hand, so far schools have not utilized this potential, where smartphones are not used to assist the learning process.

Seeing these problems, it is necessary to develop Arabic language learning media by utilizing Android as a learning medium in the classroom. Therefore, researchers are interested in conducting research entitled "Development of Android-Based Learning Media in Class X MA Arabic Language Subjects".

2. RESEARCH METHOD

This research uses the Research and Development (R&D) research and development method. Research and development is a research method used to produce certain products, and test the effectiveness of these products (Sugiono, 2019). In this development process, researchers used a 4-D development model. According to Sugiyono (2017), the 4-D development model consists of four stages, namely Define, Design, Development and Dissemination which are carried out in a structured and systematic manner.

Definition stage In this research there are 2 steps taken in carrying out the definition, namely needs analysis and content analysis. The design stage is divided into 3 parts, namely, creating a Flowchart, creating a Storyboard and creating a product. The development stage consists of expert validation and field trials. The deployment stage is carried out when all stages have been completed. The final product will be distributed to teachers and students via download on the Google Drive link. This method and model was applied to produce the final product of Android-based learning media for class X Arabic subjects at MAS Muhammadiyah Lakitan.

3. RESEARCH RESULTS AND DISCUSSION

This development research produced a product, namely Android-based learning media in the form of an application in Apk format.



Figure 1. Initial View of the Designed Media

The development procedure carried out in this development research is the 4-D (Four D) development model which consists of four stages, namely Define, Design, Development and Dissemination. The product resulting from this research is an Android-based learning media that can be used as a medium in learning Arabic for class X.

The Define stage consists of needs analysis and content analysis. Needs Analysis is the design of Android-based learning media related to the needs of class X MA Muhammadiyah Lakitan students regarding the limited availability of learning media. Content Analysis examines student characteristics in accordance with the analysis of development needs for Android-based learning media being developed.

Design Stage (Designing). The first step in the design process is to design the concept of the media that will be created. In designing the product, two stages were carried out, namely in the first stage the author selected and determined the application that would be used to create Android-based learning media. The author chose Construct 2 as the main application, and Adobe Photoshop, and Website 2 APK Builder Pro as supporting applications. Next, in the second stage, the author creates a design or product design. To describe the design of each page, three designs are required, namely in the form of a flowchart, storyboard and creating a product. This Android-based learning media has an initial application display page, menu page, user instructions page, basic competency page, material page, video page, practice page, profile page.

The third stage, namely the development stage, is carrying out expert validation tests and field trials. The fourth stage, namely carrying out the stage of distributing the product results to teachers and class X students at MAS Muhammadiyah Lakitan.

The assessment results from 2 media expert validators were seen from several aspects, namely: (1) media design and layout, (2) suitability and completeness of the media, (3) ease of use of the media.

Table 1. Media Expert Validation

Aspect	Variable criteria	Indicator	Evaluation		Flat -flat	Variable average
			VI	V2		
ValidityMedia	Media Design and Layout	1	5	5	5	5
		2	5	5	5	
		3	5	5	5	
		4	5	5	5	
		5	5	5	5	
		6	5	5	5	
		7	5	5	5	
		8	5	5	5	
		9	5	5	5	
		10	5	5	5	
	Media Suitability and Completeness	11	5	5	5	4.87
		12	5	4	4.5	
		13	5	5	5	
		14	5	5	5	
	Ease of Media Use	15	5	5	5	4.83
		16	4	5	4.5	
		17	5	5	5	
	Average		4.94	4.94	4.94	4.94

From the assessment by the two media validators, an average of 4.94 was obtained with the criteria "Very Valid", then if we look at the assessment of the media design and layout variable criteria by the two media validators, an average of 5 was obtained with the criteria "very valid", while for the media suitability and completeness variable, the average was 4.87 with the criteria "very valid", for the ease of media use variable, the average was 4.83 with the "very valid" criteria.

In accordance with the assessment criteria per variable and overall components in the media, it can be concluded that the results of the assessment by the two media validators can be categorized as "Very Valid". Furthermore, the results of the assessment from material experts can be seen in the following table:

Table 10. Material Expert Validation Assessment Results

Variable Criteria	Indicator	Evaluation	AverageVariable
Content Eligibility	1	5	4.71
	2	4	
	3	5	
	4	5	
	5	5	
	6	5	
	7	4	
Language	8	4	4.75
	9	5	
	10	5	
	11	5	
Presentation	12	5	5
	13	5	
	14	5	
Amount		67	14.46
Average		4.78	4.78

Based on the assessment by the material validator, an average score of 4.78 was obtained. Based on the average per variable, namely the content suitability variable with an average of 4.71, the linguistic variable with an average of 4.75 and the presentation variable with an average of 5, it can be concluded that the results of the material validation assessment on Android-based learning media by experts material can be categorized with the criteria "Very Valid".

Meanwhile, the results of the practicality test assessment which was tested on 20 class X students at MAS Muhammadiyah Lakitan can be categorized as Practical. This can be seen from the average value per variable, namely in the ease of use variable with an average of 4.09 in the "Practical" category, in the time efficiency variable with an average of 3.8 in the "Practical" category, in the attractiveness variable with an average of 3.6 with the "Practical" category, then the appearance variable with an average of 4.08 with the "Practical" category, and the benefits variable with an average of 4.18 with the "Practical" category.

Based on the results of the practicality trial assessment for all components, an average score of 4.05 was obtained in the "Practical" category. It can be concluded that the Android-based learning media product that has been developed for class X students at MAS Muhammadiyah Lakitan is practically used in learning and can help improve students' understanding of learning. This is also confirmed by the results of the research conducted by Rahmadini Triana Martin, Syafril, Meldi Ade Kurnia Yusri and Fetri Yeni J (2024) that Android-based interactive multimedia is able to create dynamic and enjoyable learning by using various types of media, such as video, images, sound and animation. This helps students to be more actively involved in the learning process, and provide feedback and exercises that can help students test their understanding

4. CONCLUSION

The research and development carried out by researchers produced a product in the form of Android-based Arabic language learning media. The development model that researchers use is the 4-D (Four D) model. According to Sugiyono (2017), the 4-D development model consists of four stages, namely Define, Design, Development and Dissemination which are carried out in a structured and systematic manner.

Based on the results of media validation by media experts, an average value of 4.94 was obtained in the "Very Valid" category, material validation by material experts obtained an average

value of 4.78 in the "Very Valid" category. Previous research conducted by Ma'ruf (2022) has provided evidence regarding the validation results which obtained an average value of 4.7 which can be said to be very valid and the product produced is suitable for use in the learning process.

The product practicality test was tested on 20 class X MA Muhammadiyah Lakitan students. Where the results of the practicality test questionnaire received an average score of 4.05 in the "Practical" category. The level of practicality of developing Android-based learning media is supported by research conducted by Ebenezer Panjaitan and Denny Haris (2022) which suggests that the average score of the practicality test results of 4.08 is included in the practical category.

As an Android-based learning medium for Arabic language subjects, especially descriptive text material, of course it has its own advantages and disadvantages. The advantages of this Android-based learning application are:

1. It can be used easily because there are features that are easy for students to understand.
2. Can be accessed anywhere and anytime.
3. Can be used without internet.

Apart from the advantages, of course there are disadvantages to the Android-based learning media application being developed, including:

1. You must need an Android in the form of a cellphone or Tab to use this application.
2. The application product only consists of Arabic language lessons, especially descriptive text material.

Because the material contained in this Android-based learning media application is only descriptive text material, it is hoped that in the next material educators will be required to innovate by developing learning media that integrates technology to create varied learning media.

The results of this product development can be used for the learning process so that students can more easily understand the learning material. In product development that has been carried out, it is hoped that further research and development will be carried out, such as testing the effect of learning on the product that has been created or it could also be done by carrying out the same research and development for different materials or KI and KD. The creation of learning media must be developed further to increase students' understanding of the material.

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