



## Development of Learning Media through Interactive Quiz

**Machnunah Ani Zulfah<sup>1\*</sup>, Akhmad Mahmudi<sup>2</sup>**

<sup>1,2</sup>Islamic Education, Universitas KH. A. Wahab Hasbullah

\*Email: [machnunah313@unwaha.ac.id](mailto:machnunah313@unwaha.ac.id)

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### **ABSTRACT**

*Pandemic covid-19 requires all sectors to make various changes and innovations, especially in the education sector which must maintain the implementation of the learning process well and run smoothly. Therefore, all education sectors are required to make changes to the learning process that was originally conducted directly between students and teachers changed into an online learning process. Thus, teachers and students must be ready to adapt to new breakthroughs and challenges in the learning system applied in the elementary school. quizizz is an application used to create interactive online-based quizzes that can be played on computers and mobile phones. In this study using research and development model (R&D) consisting of the following steps: solving potentials and problems, data collection, product design, design validation, design revision, product trials, product revisions, usage trials, product revisions, mass production. Where in the purpose of this research is to develop and explain the utilization of learning media application quizizz based on mobile learning. on the test validator experts resulted in that the product is said to be valid and feasible because it gets 93% and in the initial product test phase produces an A score of 4 people (67%), and at the stage of the comprehension test with 30 students after member response to 15 statements point to the choice of answers 93% students answer yes. And students who voted didn't make as much as 11%.*

**Keywords :** *Mobile Learning, Online, Quizizz.*

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### **INTRODUCTION**

This determination is written in the Presidential Decree of the Republic of Indonesia No. 12 of 2020 concerning the Determination of Non-Natural Disasters spreading Covid-19 as a National Disaster. The Covid-19 pandemic has a considerable impact on education in Indonesia. After Covid-19 outbreak, the majority of regions in Indonesia conducted teaching and learning activities online, namely learning through electronic media intermediaries connected to the internet, one of which is by using media in the form of Hand Phone or Gadget and can be called mobile learning. All teaching and learning activities ranging from material delivery, student attendance, daily replays, to student skills tests are conducted online or online.

In the implementation of online or online learning, each student must still have an attitude that can support the success of learning objectives. One of the attitudes that must be maintained in students is the interest in learning in learning activities (Sirojudin & Ghozali, 2019). However, when learning online or online students' interest in learning, especially in elementary students becomes a very crucial and important issue to discuss at this time. Because of the interest in learning elementary students are less often deviations that interfere with teaching and learning activities such as the student prefers to play around rather than follow the learning done online.

Based on the results of research surveys in the field, the majority of students often have problems in learning interests because the learning media used by teachers is less attractive (Meishanti et al, 2020). So the student experiences the laziness to follow online learning because they consider the lessons described by the teacher through mobile phone online media is just that-that's all where students experience disinterest and often do not follow the learning online so that the materials described by the teacher often do not enter into the understanding of the student.

According to Purwanto (Sentia & Jaya, 2021), aspects that affect students' learning interests are grouped into two parts, namely internal aspects and external aspects. One of the internal aspects that influence students' learning interests is the attention of students arising from curiosity. Therefore, the sense must obtain stimulation so that students always give attention to the material described by the

teacher in the classroom. External aspects that affect students' learning interests include family aspects and school aspects (Khoiroh et al, 2020); (Chotimah, 2020). The aspects of family that affect, among others, family relationships, family problems, family conditions, etc. And for the school aspect one of them is the use of learning media used in online teaching and learning activities is less interesting. This is an important aspect that can influence students' learning interests in the classroom. Based on the background reasons, researchers are interested in reviewing the title "Development of Mobile Learning based on QUIZZ application to improve the effectiveness of students' learning in Islamic Religious Education subjects in the pandemic era at Megaluh State Elementary School."

## **METHOD**

In this study using research and development model (R&D) according to Borg and Gall in the book which consists of the following steps: exploring potentials and problems, data collection, product design, design validation, design revision, product trial, product revision, usage trial, product revision, mass production. The data used in this study is qualitative and quantitative : (a) qualitative data: data obtained in the form of scores with ordinal data types and suggestions from validators. (b) quantitative data: In this study quantitative data is used to find the validity, reliability and difficulty of the problem items contained in the questionnaire for students.

## **RESULT AND DISCUSSION**

### **Result**

One of the problems of the online learning process in the pandemic era such as today, especially in the subjects of Islamic Religious Education (PAI) at SDN Megaluh Jombang is the lack of teacher ability in the utilization and use of learning technology, this is seen when the implementation of online learning process activities or Distance Education (PJJ) teachers still use Whatsapp and Online Modules as learning media so that it is less attractive to students un to follow online learning or PJJ. Learning activities seem boring and have an impact on students' low learning motivation, in addition to learning activities using Whatsapp media and Online Modules are considered less practical and effective, because there are still many students who often do not follow or leave online learning because of boredom and lazy because students at home who think only play and play with their peers, especially in elementary school students , so that the results obtained in the understanding of the material and at the time of the evaluation implementation has not been maximized to see the original ability of the student and see which material is not understood by the student (Mulyati & Evendi, 2020).

With the development of technology, now the learning process can be done by utilizing mobile learning-based applications online, one of which is by using quizizz application. With the development of learning media tools using this quizizz application, it is expected to improve pai learning process that is more practical especially in the pandemic era and in online or online learning systems, in addition PAI learning will also feel fun and not boring. The advantage of PAI learning activities using this quizizz application is that students will not feel the saturation and boredom caused by the online or online learning system, the teacher is also easier in delivering materials to students, and with this application is also really very effective because teachers can also provide material in detail supported by animated images related to the material and teachers can also directly link or give questions about lati han or evaluation to curd how much the level of understanding of students on the material that has been delivered in the form of slides and animated images as a medium of supporting the understanding of material to students and at that time the teacher can know and measure the level of understanding of students. (Aini, 2019)

### **Discussion**

Islamic religious education is a conscious and planned effort in preparing learners to know, understand, live, to believe in the teachings of Islam, coupled with the demand to respect adherents of other religions in relation to harmony between religious people until the realization of unity and unity of the nation. PAI activities are directed to increase confidence, understanding, passion, and practice of learners, which in addition to forming personal righteousness or quality, as well as to form personal righteousness or qualities, also form social righteousness.

According to Zakiyah Darajdat:1989 quoted by (Khoiriyah, 2016), "Islamic religious education is an effort to foster and nurture learners in order to always be able to understand the teachings of Islam thoroughly, then live the goals, which can ultimately practice and make Islam a view of life".

Mobile learning media is a learning medium that utilizes information and communication technology. In the concept of learning, m-learning brings the benefits of the availability of teaching materials that can be accessed at any time and visualization of interesting materials and can be accessed from anywhere and anytime (Amirullah & Hardinata, 2017).

Quizizz is an application used to create interactive online-based quizzes that can be played on computers and mobile phones. The advantage of this quizizz application is that it has 4 or more sections that can be functioned as answer selection sheets and can be added images on the background of the answer or question. In addition, quizizz application has ease of use, because this application is not paid, so it can be used by educators and students (Syaifulloh, 2020).

In the development of learning media tools in the form of video slide materials and evaluation tools using mobile learning-based quizizz applications, the author needs validation from several experts to provide an assessment of the tools or products that the author makes in the form of video learning tools in the form of animated video slides and evaluation tools by utilizing the mobile learning-based quizizz application. Expert validators in each field provide assessments and notes on learning video slide products and evaluation tools using the quizizz app to make the resulting product really feasible to use. Validation results by experts in each field are presented in table 1 below:

**Table 1** Validation Results of Media Experts, Material Experts and PAI Teachers

Expert Validator Name :	1. Rina Dian Rahmawati, M.Pd. 2. Nur Ida Ayu Fitriana, M.Pd. 3. Elok Santoso, S.Pd.		
Aspects	Validation Results		Information
	agree	Strongly Agree	
Learning media suitable for use in primary school students		√	Decent and Valid
Interesting learning media for students to learn		√	Decent and Valid
Caricatures or animations in learning media appeal to learners		√	Decent and Valid
The voice in the learning video is clear and easy to understand		√	Decent and Valid
The background is appropriate and clear		√	Decent and Valid
Writing in learning media can be read clearly		√	Decent and Valid
Videos can appeal to primary school students		√	Decent and Valid
The brightness of the image in the learning media is appropriate		√	Decent and Valid
Videos in learning media make it easy for students to learn independently		√	Decent and Valid
Video in learning media according to students' needs for digital literacy		√	Decent and Valid
Conformity of material content with Basic Competency and Competency Standards, Indicators, and Learning Objectives		√	Decent and Valid
The images presented in the discussion of the material are appropriate	√		Decent and Valid
Language style used in the material is clear		√	Decent and Valid
There are practice questions that test students' level of understanding		√	Decent and Valid
Material discussion adds insight to students		√	Decent and Valid
Accuracy of the material presented increases students' learning motivation	√		Decent and Valid
The material is presented simply and clearly	√		Decent and Valid
Suitability of the duration of the problem work with the degree of difficulty of the problem		√	Decent and Valid
Compatibility of problem items with curriculum 2013		√	Decent and Valid
Compatibility of problem items with answer options		√	Decent and Valid
Compatibility of problem items with learning objectives		√	Decent and Valid
Compatibility of problem items with Material		√	Decent and Valid

Compatibility of problem items with ability of learners		√	Decent and Valid
Compatibility of problem items with learning objectives		√	Decent and Valid
Compatibility of problem items with Material		√	Decent and Valid

From the validation of Media, pai materials and teachers that have been obtained show that the category is feasible and valid from all aspects. From the assessment sheet there is also a note given by the expert validator and pai teacher namely: "preferably if the animation is female, then for the sound is adjusted, but overall this video is good and clear, both in terms of writing and sound so it is feasible to apply to the next process" (media expert notes). "in the delivery through video media, it is better to add a more complete explanation in accordance with what is said" (expert notes of the material). input from experts is followed up by changing the product in the form of learning slide videos and evaluation tools in accordance with the notes submitted by expert validators. (Parmin & Peniati, 2012)

After the product is validated by experts and declared eligible and valid then the next stage of the initial trial by taking 6 students, then 6 students are given a quizz website link to access the page containing the product results in the form of video slide material and evaluation. The trial was conducted online because it was still during the covid-19 pandemic that had to be an online school so that the author could not meet directly with students. After the student is given access to open the quizz application link containing material in the form of video slides and evaluation questions, students are told to understand the material presented in the video after that the student is asked to answer all questions contained in the quizz application. And the results of the grades obtained by students in the initial trial are presented in table 2.

**Table 2** Initial product test student score results

Score	Result	information
<b>B</b>	85	Good
<b>A</b>	90	Excellent
<b>A</b>	90	Excellent
<b>A</b>	95	Excellent
<b>A</b>	90	Excellent
<b>B</b>	80	Good

The number of students as a target in the initial product trial as many as 6 people, of which there are no students who get grades below C while who have obtained a grade A as many as 4 people (67%), thus the utilization of learning video slides and evaluation tools by sebgian students in the initial product trials help in mastering the learning materials because based on the previous student's value data that has not used the video slide learning and evaluation tools applied quizz based on mobile learning number that got a score of A to B has only reached 42%.

After the initial product trials have been implemented there were some corrections and a little note from pai teacher experts stated that: "it is better to have the evaluation test equipment added motivational words in the form of memes interrupted by the work of the question and in the making of the question in order to be matched with pictorial questions in order to attract students to the spirit of learning". From the note only need a little additional product in the form of evaluation tests, after the addition is done in accordance with the records given by pai teacher experts then the next stage is field trials involving more students, here researchers use 1 class consisting of 30 students. With the aim to know the utilization and practicality of video slide products learning materials and evaluation tools before it will be used or disseminated or mass produced. The results of field trials are presented in table 3 as follows:

**Table 3** Field Trials

Value	Result	information	value	Result	information
<b>B</b>	85	Good	<b>A</b>	95	Excellent
<b>A</b>	90	Excellent	<b>A</b>	100	Excellent
<b>A</b>	90	Excellent	<b>A</b>	90	Excellent
<b>A</b>	95	Excellent	<b>A</b>	95	Excellent
<b>A</b>	90	Excellent	<b>A</b>	95	Excellent
<b>B</b>	80	Good	<b>B</b>	80	Good

A	100	Excellent	A	90	Excellent
A	100	Excellent	A	90	Excellent
A	100	Excellent	A	90	Excellent
A	100	Excellent	A	90	Excellent
A	100	Excellent	A	95	Excellent
A	90	Excellent	A	90	Excellent
A	100	Excellent	A	95	Excellent
A	100	Excellent	A	90	Excellent
B	80	Good	B	85	Good

The use of learning slide videos and evaluation tools applied by mobile learning quizz students' responses to the use of such products are presented in Table 4. Of the 30 students after member response to 15 statements showed a choice of answers 93% of students answered Yes. And students who voted didn't make as much as 11%. based on the questionnaire shows that all students give positive responses to the utilization of learning slide videos and evaluation tools applied by mobile learning-based quizz.

The development of learning tools in the form of video material slides and evaluation tools in the quizz application of this study, through the utilization of the research results selected in the research journal has a real impact on learning improvement. Research begins from the existence of real problems in learning, further efforts are made to overcome in the design of research, the results obtained are solutions of the problems that have been tested. Therefore, the results of the research that is used as material for the preparation of video slide materials and evaluation questions in this study are applicable and packaged in the form of sentences that are easy to understand by students. The development of learning tools in the form of video material slides and evaluation tools in the quizz app tried in classroom learning has been declared feasible because all aspects of the assessment in the second validation have received a category of positive response from the student's answer.

**Table 4** Student Response Questionnaire

Statement	Choice	
	Yes	Not
Are the learning materials activities using quizz application conducted with fun?	28	2
Is the learning evaluation activity using quizz application conducted with fun?	27	3
Can you easily understand the use of learning slide materials using quizz app?	26	4
Can you easily understand the instructions for using the learning evaluation tool using quizz app?	25	5
Is the language used in the learning material slides using the quizz app easy for you to understand?	21	9
Is the language used in the learning evaluation tool using quizz app easy for you to understand?	28	2
Are the sizes and typefaces used on the learning material slides using the quizz app easy for you to read?	30	0
Are the sizes and typefaces used in learning evaluation tools using quizz app easy for you to read?	25	5
Apakah slide learning materials using quizz application can increase learning motivation?	27	3
What is the reason for using quizz app in the shop can interest you in PAI lessons?	27	3
Can learning evaluation tools using the quizz app test how far you understand the material you've learned in school?	27	3
Can learning evaluation tools using the quizz app help improve your understanding of the material you have learned in school?	27	3
Does working on learning evaluation questions using quizz app be able to reduce your level of cheating?	28	2
Do you feel bored when working on learning evaluation problems using quizz app?	28	2
Do you feel very interested in learning PAI when working on evaluation questions using quizz app?	26	4

Once the product is declared fit for use the next step is to use the product in learning. Each student is given a file in the form of guidance in accessing the product is applied quizz so that at the time of implementation of the product in the teaching and learning activities students can and understand operating the product that is in the quizz application. students are also asked to make a note of the study process and make a list of questions if something is unclear.

The validator at the end of the assessment has concluded that the product is worth using in learning. For the effectiveness and attractiveness aspects of the assessment because the product can be

used anywhere at any time and is not needed face-to-face between teachers and students so the product is very suitable for use in remote learning situations or online due to the covid-19 pandemic disaster has not been completed. And with these products can also improve students' learning because students are interested in drawing and evaluation in the form of games so that students are not saturated in the implementation of distance learning or online is underway.

## CONCLUSIONS

Based on the results of the study, it can be concluded that: The development of learning media in the form of video slides and evaluation tools with mobile learning-based quizizz application in islamic religious education subjects with beautiful ramadan material is considered worthy by expert validators in each field and can be used and applied in learning. Products developed by integrating research results are effectively used in learning. Based on research on the effectiveness of student final score acquisition.

Some suggestions from the results of this study : The results of research that has been published in the journal deserves to be used as a reference for the development of this product because it is more applicative and meets the current elements, the product developed from the results of this study needs to present real facts supported by stimulus in the form of images or animations because it can attract students to learn it.

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