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Product Development of Ayo Belajar Tayamum Application

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ABSTRACT

Background. Technology development currently has rapid and significant changes, one of which is in the world of education, where technology is one of the learning media in delivering material

Purpose. In this study, researchers conducted technology development in the form of the Let's Learn Tayamum application. The purpose of this study is to develop the Let's Learn Tayamum application and also measure the effectiveness of the application in learning.

Method. To achieve the above objectives, researchers use development research or Research and Development (R&D).

Results. The technique used is to test the use of applications to fourth grade students of SDIT Jagat Arsy, for data collection techniques, researchers use pre-test and post-test.

Conclusion. After analyzing the data, the results showed that the use of the Ayo Belajar Tayamum application in learning was quite effective with a moderate category, namely with the results of the N-Gain Score of 0.7004 or 70.04%.

KEYWORDS

Product Development, Let's Learn, Tayamum Application

INTRODUCTION

Tayamum according to the language is defined as something that can replace wudhu when going to pray, for people who cannot get water because of an emergency situation. However, according to the term shara' tayamum means wiping the face and hands with clean dust in certain ways. (Saifullah, 2019).

As explained above, tayamum can only be done for certain reasons, which function as a substitute for ablution and can also be a substitute for a big bath (obligatory bath). If one is going to perform tayammum, it is recommended to use pure, dusty soil, and it is forbidden to use muddy and unclean soil. When someone does tayamum and then performs prayers, it is not obligatory for them to repeat

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their prayers again, but this tayamum can only be used for one fard prayer.

The procedures for tayamum are first, finding a clean place first, in this case it can be anything natural such as rocks, sand, or grass. Second, saying Bismillah hirrahmaan nirrahiim following "In the name of Allah, the Most Merciful, the Most Merciful". Third, continue with the intention to do tayamum. Fourth, after the intention put the hand on the ground. Fifth, raise your hands and make sure there is no dust on the surface of the palms by rubbing both hands. Sixth, rub the face with the hands, the face covering the right ear to the left. Seventh, do the same as steps no 4 and no 5. Finally rub your arms, use your left hand to rub your right arm from the fingers to the elbow and back along the inner arm to the hand, do the same with the other arm using the right hand.

"Let's Learn Tayamum" App

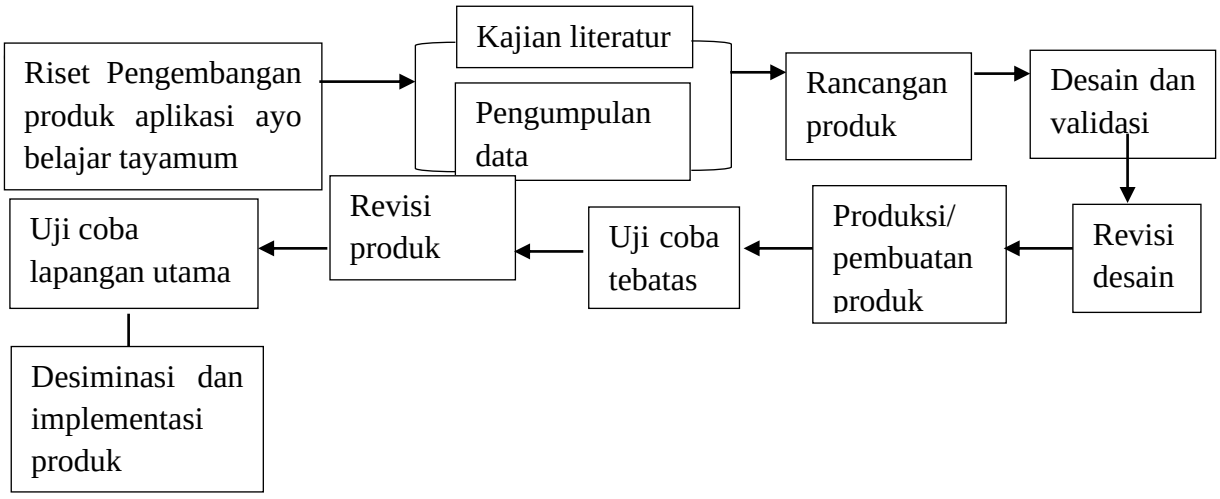
An application is a ready-to-use tool that becomes computer software and has its own capabilities in order to process data according to its function. (Sudarta & Tegeh, 2015).

The application of learning tayamum is an application in which there is material about tayamum, such as from the definition of tayamum, fardhu tayamum, tayamum requirements, sunnah tayamum, things that cancel tayamum, and tayamum procedures. This application is designed with the aim that learning about tayamum material becomes more easily accessible at any time, not only at school. This application is also expected to make students more enthusiastic in learning, because the display prepared by this application looks more fun and not boring

RESEARCH METHODOLOGY

The method used in this research is research and development (R&D), where this design is shown to make tayamum material easier to access anywhere and anytime.

Research process table 1.



RESULT AND DISCUSSION

Initial planning of application development

In making this application, the method used by researchers is the method according to Luther, which is found in the book Ariesto Hadi Sutopo, 2003. In this method there are six stages for making applications, namely concept, design, material collection, manufacture, test and distribution.

1. Concept

This concept stage is the most important stage to do before making an application, because at this stage it will determine the purpose of making the application and also intends to be able to identify usage. In this concept stage will describe the concept of the application to be made, which determines the type of application and also the general specifications of the application being made. The following concepts made can be seen in Figure 1.1.

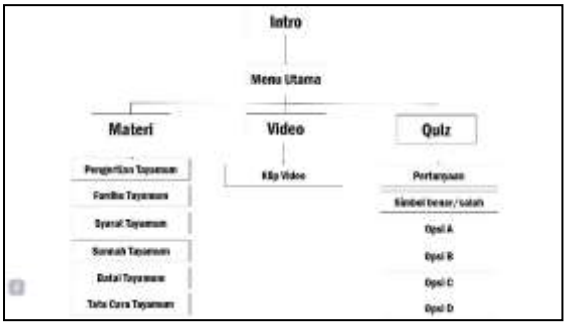


Image 1.1

2. Design

This design stage is a stage that will explain the more detailed specifications of the application to be made, as well as determine the needs that will be used in making the application. The following design made can be seen in table 2.1.

3. Material collection

This material collection stage is a stage where the collection of materials needed for making applications is carried out, such as: images, icons, and videos. The materials collected are obtained from internet media which are then reprocessed to support the needs of the materials to be used in making applications.

4. Making

This manufacturing stage is a stage where all materials are ready to be used to make applications based on predetermined concepts, and the creation of this application is based on the story board, navigation structure, or object diagram derived from the design stage. At this stage the software used is PowerPoint, iSpring Suite and Website APK Builder to perfect the results of the application made.

At this stage, the first thing the author does is download the iSpring Suite application and the APK Builder Website first. The steps to download the application can be seen in Figure 2.2.

Image 2.2 Unduh Aplikasi iSpring Suite dan Pembangun APK Situs Web

The next step is to create a design according to the concept provided, after the design for the application is ready, on the menu bar there is the iSpring Suite application that we downloaded earlier, then click on the iSpring Suite and publish the design that has been made. See in picture 2.3

Image 2.3 Publish Desain ke iSpring Suite

After the design is successfully published, then enter the Website APK Builder application that was downloaded earlier, then enter the file that was published into the Website APK Builder, setting as needed, after everything is sufficient, then click Build Android App. See picture 2.4

.

Figure 2.4 Formation of the Let's Learn Tayamum Application

1. Testing

The testing stage is carried out after the application is complete. This stage serves to ensure that the application is as planned and can operate properly. And to ensure that the application made can run well among users, so that later users can feel the convenience of running the application that has been made.

2. Distribution

This distribution stage is carried out to evaluate the application made after going through the test stage.

Limited trial product testing

This let's learn tayamum application has gone through several phases, starting with the development phase tailored to the needs analysis. Based on the needs analysis that has been carried out on several children in sempur, there are revisions to the let's learn tayamum application, where the appearance of the application is less attractive, because the material included is still too long and the display displayed is not colorful so that it gives a boring impression to children. The following application display before revision can be seen in Figure 2.5.

Product revision after conducting a limited trial

Product revision is carried out, after knowing the shortcomings obtained during the trial. Therefore, researchers revised the appearance of the let's learn tayamum application by providing a more attractive appearance by adding several shapes, colors, images, videos and several icons to the application. Not only that, researchers also summarize the material, so that the material displayed is not too long. The appearance of the let's learn tayamum application is displayed with the intro menu, main menu, and material menu can be seen in Figure 2.6, as well as the video and quiz page display can be seen in Figure 2.7.

Gambar 2.6 Tampilan menu intro, menu utama, dan menu materi

Gambar 2.6 Tampilan menu intro, menu utama, dan menu materi

Main field trial

The next thing the researcher did was to conduct the main field trial precisely at SDIT Jagat Arsy. In this main field trial, researchers conducted 2 meetings in this implementation stage. The implementation stage at the first meeting conducted by researchers, namely:

1. Started with introductions between researchers and students.

2. The researcher asked students about tayamum material, whether the material had been taught or not. Apparently, according to students, the material has been taught before by PAI teachers at school.
3. The researcher distributed pre-test questions related to Tayamum material, but the results of the students' answers were still many who did not understand the Tayamum material.
4. After that, the researcher asked students to bring their cellphones to the next meeting to download the ayo belajar tayamum application that had been made by the researcher.
5. The following are the stages of implementation at the second meeting carried out by the researcher, including:
6. Starting from students doing habituation before starting the implementation of learning in the classroom.
7. The researcher asked students to open their cellphones, then sent the hardfile of the let's learn tayamum application to be downloaded by all students.
8. Some learners apparently experienced problems when downloading the let's learn tayamum application, due to the full storage on the learners' cellphones. Then, the researcher asked students who could not download to participate with students who had successfully downloaded.
9. Each learner opens the ayo learning tayamum application accompanied by the researcher to explain the material in the ayo learning tayamum application.
10. After the material explanation has been completed,

Product dissemination and implementation

As for the benefits that researchers get at SDIT Jagat Arsy with this application, students become faster in understanding Tayamum material, because with the application students can try to use new media in their learning, which makes many students more enthusiastic when the learning process is carried out. Not only that, the benefits for researchers in applying this let's learn Tayamum application so that researchers can find out the extent of students' understanding of Tayamum material. Not only that, when using the Let's Learn Tayamum application, there are obstacles in the display of the video menu, where the obstacle obtained is that the video that has been presented cannot run properly, because the video is connected to YouTube and makes students must have a large enough quota and a good enough network.

The purpose of making this application is to create learning media with new innovations from teaching materials that are usually used, so that learning becomes more fun and makes students not easily bored. This can be expressed because the teaching materials that are usually used are still boring and only rely on books and blackboards as learning media.

Then, all researchers held discussions about the ayo belajar tayamum application to develop the application, the content of which was teaching material designed by researchers. Furthermore, researchers also validate the let's learn tayamum application, materials and learning practitioners to be able to ensure the feasibility of the android-based teaching materials developed. The next thing researchers do is revise and test teaching materials. Before the trial, the researcher conducted a pre-test first, to measure the extent of students' understanding of tayamum material, and the results of the pre-test found that the average score of students was 48.13. After the pre-test trial, the researcher conducted a trial of the Let's Learn Tayamum application accompanied by the researcher explaining the material in the application, after all the series was carried out, the researcher conducted a post-test, where the post-test results found that the average score of students was 85.00, which can be concluded that there was an increase in the average score of students after using the Let's Learn Tayamum application.

The next step researchers conducted the N-Gain Score test, to measure the effectiveness of the Let's Learn Tayamum application in learning, the N-gain Score test was carried out using SPSS for windows version 22 with the following results:

Descriptive Statistics

		Minimum	Maximum	Mean	Std. Deviation
N-Gain Score	6	25	1.00	.7004	.21585
N-Gain Score (%)	6	25.00	100.00	70.0446	21.58483
Valid N (listwise)	6				

Based on the results of the calculation of the table above, it shows that the average value of the N-Gain Score on the use of the let's learn Tayamum application is 0.7004 or 70.04% which, this value is declared quite effective with a moderate category.

Thus, it can be concluded that the use of the Let's Learn Tayamum application is quite effective to be used in learning Tayamum material at SDIT Jagat Arsy, because it can increase the enthusiasm of students in learning and not easily bored, so that students become responsive quickly in understanding Tayamum material.

CONCLUSION

Based on the results of the research and the results of the data analysis previously described, the researcher draws the conclusion that the use of the Let's Learn Tayamum application makes learning quite effective on tayamum material in class IV SDIT Jagat Arsy. These results can be seen from the average pretest score of students before being given the treatment of 48.13 and after being given the learning treatment increased by 36.87 which showed the results of the average post-test score of 85.00. The N-Gain Score test results state that the average value is 0.7004 or 70.04%. This shows that the use of the Let's learn tayamum application is declared quite effective with a moderate category for learning tayamum material for fourth grade students of SDIT Jagat Arsy.

AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.
Author 2: Conceptualization; Data curation; In-vestigation.
Author 3: Data curation; Investigation.
Author 4: Formal analysis; Methodology; Writing - original draft

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