Design Of Educational *Game* "Adventure Of A Sholeh Child" Using *Adobe Flash* Based On *Android*

Yohanda Oktaviary*[1], Aditya Wahana[1], Puji Handayani Putri[1]
[1]Informatics Department Universitas PGRI Yogyakarta Indonesia
E-mail : ***[1]yohanda9eet@gmail.com** , [1]aditya@upy.ac.id , [1]pujihp@upy.ac.id

Abstract
The material of the pillars of Islam is main the teachings of the Islamic religion guidelines for a person muslim . A number of schools and TPA and TPQ places convey material the with how teachers and children educate notice Then child educate repeat . This is assessed not enough efficient Approach This not enough effective use prevent boredom in children educate moment learn . Because that , is needed multimedia applications in the form of educational games Android based which contains material Pillars of Islam. Application This made using Adobe Flash CS6. The purpose of study is make educational game design " adventure " child pious " with Adobe Flash based android . For child under 10 years of age who will Study harmonious Islam . The data collection method used is bibliography , interviews , and observation . Design application methodical inbeetwen (byframe) .

Keywords *: Educational Games Pillars of Islam*

1. INTRODUCTION

The use of technology in today's era is irreplaceable. Personal computers, laptops , and *mobile phones* have become tools to help with daily activities. In the world of education, multimedia technology has become an interactive teaching material. The use of multimedia technology has recently been used by schools. urban schools for supporting media for the learning process taking place in the classroom.

Technology has given many changes to children's character. Children as the future generation must have strong guidelines at an early age. In children's lives, it is always filled with playing activities. Children in the age range of 5 to 10 years are more interested in playing games on their *smartphones* .

The future of the nation lies on the shoulders of children, so a science is needed in forming children's characters that have individual and social values based on the Qur'an and the teachings of the Prophet. The Pillars of Islam are part of the science that is crucial for the foundation of character formation in children from an early age. Early age is a golden age that is very good for child development. According to Montessori at this golden age the mind is still sensitive to something, children can receive various stimulations in education.

Islamic religious education for children is increasingly prioritized. Parents are expected to introduce Islamic teachings to children from an early age so that children's knowledge of the science of monotheism can be more ingrained and memorable in the hearts of children [1] . The pillars of Islam include creed , prayer , fasting , zakat, and hajj, no Enough memorized only , but also understood as well as internalized . Apart from being taught in the formal education , teachings this is also given in the non-formal education , namely at TPA or TPQ [2] .

2. THEORETICAL BASIS
2.1. *Literature review*

Study previously by [3] entitled *" Development Application Learning Tajweed of the Qur'an Augmented Reality Based Case Study At Madrasah Miftahul Ulum 22 Coral "Nongko"* uses method

Augmented Reality (AR) and visualizing image on marker *Augmented Reality* in a way *real time* give explanation to user application This . Application This used so that users capable do understanding about method reading the Qur'an right , this *Augmented Reality (AR*) technology blend elements of audio, images , videos and quizzes that aim For increase interest generation millennials who like reading the Qur'an while add outlook about multimedia technology .

And in research conducted by [4]) research R&D method . Research process involving a number of stages , namely analysis , design , development , implementation , and testing . Testing covering validation by media experts at once expert material . After through the validation process and the media is declared fulfil eligibility criteria interactive , then carried out trials by students . Only then after that , research to be continued For identify media suitability in the field .

And journal from [5]) with title " *Game Education Know Indonesian Archipelago Using Unity 3d For Increase Interest in Learning Student School "* this game developed with Unity 3D software as Supporter main . Research This R&D method to produce a product as well as test its effectiveness . Its main purpose is help student school base learn material Indonesian archipelago . Based on results study about educational games Indonesian Nusantara, this game to obtain score average 82.7% of respondents , which include in category very Good .

2.2. *Multimedia*

Multimedia is a combination of text, sound, images, video and animation in *online learning* and social networks presented via computer or other devices. [6] .

2.3. *Instructional Media*

Instructional Media is element crucial in the educational process . Quoted from [7] media is a tool that conveys information from the source to the recipient. When the media carries messages or information for teaching purposes, the media is called learning media.

2.4. *Adobe Flash CS6*

Adobe Flash CS 6 is a software that is equipped with various features to facilitate animators during the animation creation process. A number of these features make the presentation display more attractive because it allows processing any object into three dimensions. [8] .

2.5. *Actionscript*

ActionScript is a programming language implemented by Adobe Flash CS6 to facilitate animation creation. The basis of ActionScript programming is the C language and has a Case Sensitive nature, where upper and lower case letters are distinguished.

ActionScript 3.0 is Language programming oriented objects developed by Macromedia Inc. (at the time This acquired Adobe Systems). ActionScript is executed by the ActionScript Virtual Machine (AVM) which is none other than element from Flash Player. Different with version previously , all code in ActionScript 3.0 must placed in a separate frame or .as file , not on a movie clip object or button like version previously .

2.6. *Games*

Games is something that has rules has set up such that appearance and have rules and objectives certain in the practice played by someone or more . In playing it player do business For reach objective said . *Game* have many kinds of types and played by several age groups from children until adulthood likes playing *games* [9] type Types of games: *Shooting, Fighting, Adventure* , Simulation , Strategy, Sports and *games* (education).

2.7. *Sholeh*

Sholeh is Name characters used in *games* game with theme religious or morals that aim For increase knowledge or religious and moral skills in A game . Selection Name Sholeh 's own character taken from theme *games* This that is learning harmonious Islam which is expected Sholeh's character can become a learning medium For child age early

3. RESEARCH METHODS

Following is framework research described in the research This :

Figure 1 Framework study

3.1. Identification problem

Identification process problem is with collect data starting from Literature study , observation , and interviews . For knowing the data for making educational games that are designed in accordance with target.

3.2. Data collection

Data collection methods are carried out with do identification at a time make a channel the defining design objective from application , namely as teaching materials Supporter for for students / santri And teacher in Study about harmonious Islam based on *mobile application.* Description Applications , namely application shaped A adventure *game* about harmonious Islam that can run on *android mobile phones.*

3.3. Design System

At the stage This specifications that the author for in a way comprehensive regarding architecture application , style at a time need the material to be used in design *games* education .
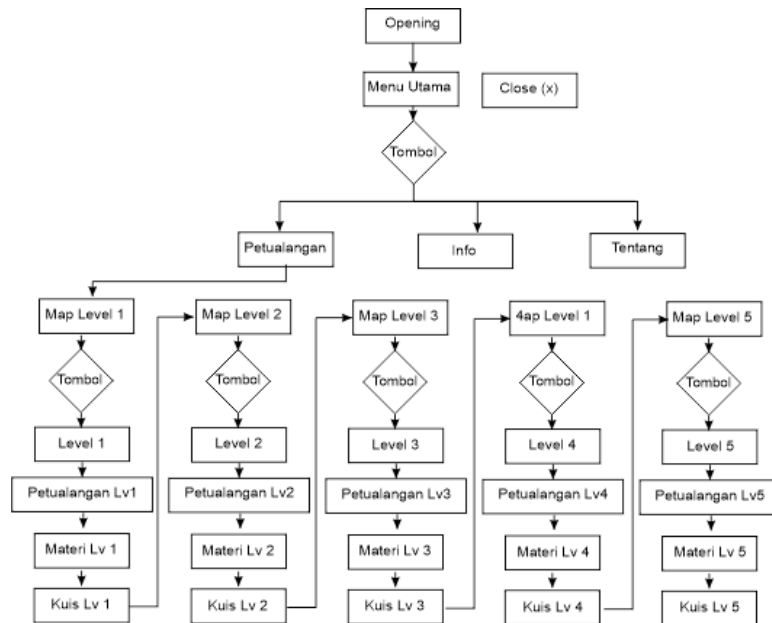
Figure 2 *Flowchart channel main* games *education adventure*

Main course is appearance from the educational games menu adventure child pious which contains various function knob going to to desired page like picture :

Figure 3 Main Menu

Educational game Level View the first adventure there is A character child use A a peci that can run to left or to right . Player can press knob left For move to direction left or knob right For move to direction right until character child the find a level that will displayed like picture :

Figure 4 Level View

Introduce sentence shahada and its meaning . View material the 2nd one made like picture :

Figure 5 Display of the Creed Material

quiz page level 1 is part from adventure And material level 1. Page quiz This containing a number of question about material shahada Which Already displayed on page material level 1 previously . Image :

Figure 6 Quiz menu display

Value features end game from results mark every questions to be worked on like picture following :

Figure 7 Quiz score display

4. RESULTS AND DISCUSSION

4.1. *Implementation*

System *games* This can run using an Android cellphone . The *software* used use development of this game is System Operating System Windows 10 Pro 64- *bit, Microsoft Office* 2016, *CorelDraw X7,* Programming language , *Actionscript 3.0 , Adobe Flash CS6, SDK AIR for Android.* Implementation from making *games* about " The Adventures of a Sholeh Child" using *Adobe Flash CS6,* presents the intro menu, a menu that includes the main menu for start games , info menu , and about menu .

4.2. *Discussion*

In *game* adventure child pious This consists of page *intro* containing title *games* furthermore menu page containing 4 buttons that is play button for start game , button about the content instruction *game* , button profile containing creation , and buttons go out For go out from application .

System is combination from a number of interrelated elements interact use realize target certain . System understood as A the whole concept , not only based on subsystem or One subsystem only . System This consists of from a number of interrelated elements relate and cooperate use process the input, then process it until produce the desired output . In concept said , the system push existence integration combination from a number of subsystem .

4.3. *Program Test Results*

Testing application aiming For know advantages and disadvantages Application . Testing This use two method that is method Dropping box black *box test* and testing (alpha *test*) testing was carried out by 18 respondents . Black *Box* Test

Testing run mentor thesis Faculty Science and Technology University of PGRI Yogyakarta. Testing process namely with operate application . Testing objectives This is For ensure What developed application capable walk in a way Good .

Testing with Alpha Test running with invite users in frame try application . After that , the user requested For fill in questionnaire use give input regarding Application . Testing This covers three aspect main , namely : appearance between face , suitability , and program operation .

5. CONCLUSION

Taking into account a number of description discussion , following is a number of Conclusions obtained :
- Application educational *games* materialized pillars of Islam that are complete game For support the learning process at TPA/TPQ regarding introduction the pillars of Islam have developed .

- Test results to give input or opinion about application this . Testing includes 3 parts , namely appearance between face , program suitability , and program operation . Based on the data of the hacking carried out to 30 respondents obtained results end from testing with , then educational *games* adventure child pious stated *ACCEPTABLE* .

6. SUGGESTION

Based on the conclusion above , so to the suggestions that can be given includes :
- This *game* Still *single player* , so in the future come *game* can developed become *multiplier* to be more interesting .

- For Now this *game* only Can played in a way *offline* on android *phones* only , in the future come expected *games* This can walk in a way *online* and can use IOS devices or device others

- Made more adventure , such as addition story and dialogue between character For That can multiplied character in games .

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