KIDS EDUTAINMENT APPLICATION: ISLAMIC PRE-SCHOOL SYLLABUS (KEAIPS)

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ABSTRACT

Pre-schoolers as defined in Malaysia's environment are kids in range of 4 to 6 years old who go for a formal education in either government or private kindergarten. Humans at this period are still in their pure state with high inquisitiveness that will absorb new knowledge easily, especially when it comes to spiritual education, specifically to Islamic teachings. The wrecking youth nowadays are most probably due to lack of understanding to the fundamentals of Islamic teachings. In order to peg the awareness of Islamic teaching's in a human's life, a platform which act as the introducer to the awareness is highly recommended to be develop. Kids Edutainment Application: Islamic Pre-School Syllabus (KEAIPS) is here to aid this needs.

ABSTRAK

Murid atau pelajar pra-sekolah didefinisikan sebagai kanak-kanak berusia 4 hingga 6 tahun yang mendapat pendidikan awal secara formal di mana-mana pra-sekolah hak milik kerajaan mahupun swasta. Ini adalah peringkat perkembangan manusia yang masih belum dicemari oleh mana-mana unsur negatif dan mempunyai daya ingin tahu yang sangat tinggi. Daya ini dapat membantu golongan ini menyerap ilmu yang diterima dengan baik. Keruntuhan moral golongan belia hari ini berkemungkinan besar bertitik tolak dari kurangnya kefahaman agama dalam diri. Bagi merancakkan lagi kesedaran ini peri pentingnya kefahaman Agama Islam dalam kehidupan seharian, satu platform yang bersifat interaktif perlu diwujudkan. Maka, wujudlah Kids Edutainment Application: Islamic Pre-School Syllabus (KEAIPS) bagi memenuhi keperluan ini.

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CHAPTER 1

INTRODUCTION

1.1 PROJECT BACKGROUND

In this globalization era, everything turns out to be technological and innovative. Education is not to be left out. Edutainment, or basically a portmanteau of words "education" and "entertainment", is a form of innovation for the education field worldwide. It was first introduced in early 1990s. This kind of form makes education is now in a wide variety of format, ranging from the most ancient type – the physical book, until the most recent one can be viewed from a watch.

Technology incorporated edutainment act as one of the most influential motivator or facilitator for people to learn. This method especially works best on developing kids, specifically, preschool students of range 4 to 6 years old. Preschool kids are at their peak for the development of good learning habits and self-esteem elevation before continuing the primary or elementary school.

Therefore, the Islamic teachings are really important to be implemented in them through this method. This project will be focusing on the Islamic values development among preschool students through edutainment. There are already lots of applications, including both web-based and mobile-based, found in online stores. Some are free and some are sold at reasonable price. Looking at these on-shelf products, it triggers me to develop something out of norms by implementing real school's syllabus in the application.

Before continuing any progress randomly, some reviews have been made on almost 15 applications to analyze how these kinds of edutainment have been progressed so far. Based on objectives, the project will then be develop according to standard application development.

1.2 PROBLEM STATEMENT

World today is no longer a safe ground for growing kids to live. The importance of implementing religious understanding becomes a total crucial thing since it may help developing the kids' perspective through fundamental faith. Preschool's formal learning session only is not enough once the kids are at home. So, a follow up method is practiced.

But, the existing preschool's physical activity book that used to be homework for these kids is no longer an effective way in this technology-based era. Just like adults, kids found that technologies are more fun and entertaining. Even so, there's not much religious basis applications developed for kids. Specifically, in terms of Islamic values in which, at the same time follows the Islamic preschool's syllabus.

1.3 OBJECTIVES

The objective of this proposal is to:

i. To develop an education application for preschool students on mobile platform.
ii. To incorporate Islamic knowledge through an interactive and entertainment features in the application which is related to preschool student's daily live.
iii. To test the application in the preschool students.

1.4 SCOPE AND LIMITATION

The followings are the scope and limitations of the project:

i. The application requires no internet connection.
ii. This project will be interactive enough to attract young users.

iii. Combinations of flash, music, and interactive images will be included.

iv. There are options for users to choose according to their likings and level.

1.5 METHODOLOGY

In developing the system, a methodology named Rapid Application Development (RAD) was chosen in regards to its flexibility in developing process of an application. This methodology was first proposed by Mr. James Martin in order to take advantage to the max of evolving recent software development.

There are several stages of RAD model. Those are:

i. Requirements Planning (also known as Concept Definition Stage)

- General understanding of the system is clarified in this stage. It includes problems that surround the system's development, familiarization of existing systems, and the development process proposed for the application.

ii. User Design (also known as Functional Design Stage)

- Basically, this stage is mainly about analyzing. Detailed analysis of the development process is clearly defined here. Those includes development activities, system's structure, and work plan.

iii. Construction (also known as Development Stage)

- Detailed design of the application is going to complete in this stage. Besides that, user aids and work plan's implementation are also done in this stage.

iv. Implementation (also known as Deployment Stage)

- Here comes the last stage where data conversion and Software Development Life Cycle (SDLC) is implemented on the developed application.

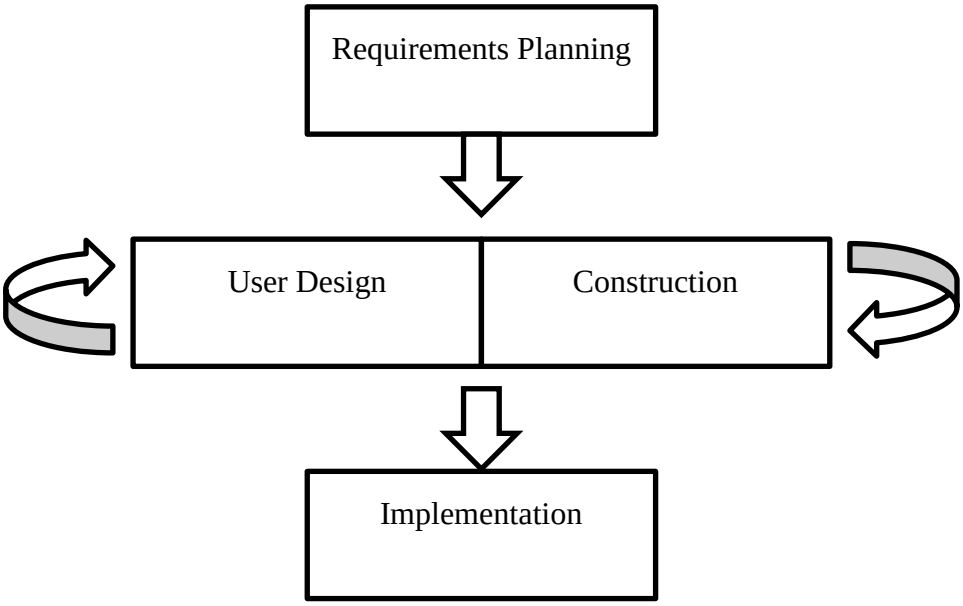


Figure 1-1: RAD model

CHAPTER 2

PROJECT BACKGROUND

2.1 REVIEW OF PREVIOUS WORK

2.1.1 To develop an education application for preschool students on mobile platform

A review has been made on ten different applications including both mobile and web-based. These applications are chosen based on its content that is suitable for young learners, specifically pre-schoolers. There are various types of applications from various fundamentals. To name some are mathematics and language.

1. **Brief Introduction**

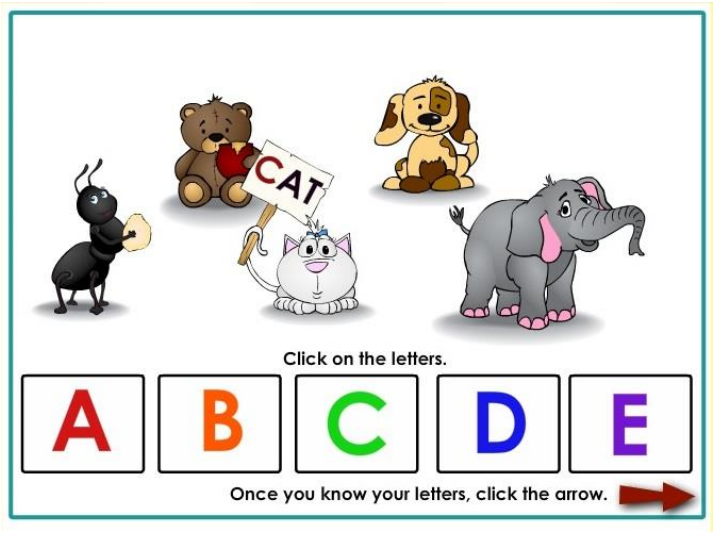
i. Nick Jr.: Umi City - Mighty Math Missions (Web-Based)

Source: http://www.nickjr.com/kids-games/umi-city-mighty-math-missions.html

This game allows kids to learn mathematics in a fun way. There are a total of 3 characters to play in 3 levels. Each level comes with different environment but quite similar mission.

ii. Sheppard Software Preschool: Alphabet Game (Web-Based)

Source: http://www.sheppardsoftware.com/preschool/ngames/alphabet/AE.htm



This application teaches user on learning alphabets. There are several rounds for each session. Each correct answer is entertained with an animation of falling colourful confetti.

iii. PBS Kids: Super Why – Super Duper DJ Game (Web-Based)

Source: http://pbskids.org/superwhy/#/game/djgame

This game educates kids on learning alphabets. There are a total of five different environments to be chosen from. The mission is to click on the correct word that matches the alphabets given. A decoration (regarding to the environment) will be given for each correct answer. Once all decorations collected, the player will be announced as the winner.

iv. Disney Juniors: Pat's Picture Puzzles (Web-Based)

Source: http://games.disney.co.uk/handy-manny/pats-picture-puzzles

This is a web-based puzzle game developed by Disney. It is a simple game that asks user to complete a 9-pieced puzzle into a picture of Pat, a hammer character of Disney's Bob the Builder. The game comes with background music to enhance the mood. An audio is set up to notify the user once a puzzle piece is placed correctly. Computer graphics are used to design the puzzles. This game helps preschool kids to match shapes correctly.

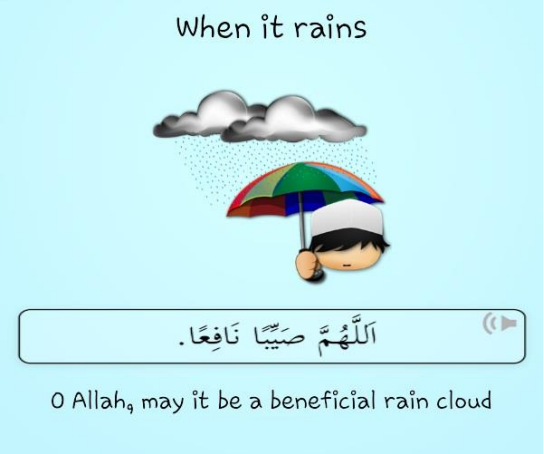
v. Fisher Price: Count the Score (Web-Based)

Source: http://www.fisher-price.com/en_US/gamesandactivities/onlinegames/countthescorelearninggame.html

This mathematics learning game focused on teaching preschool students on how to count numbers. There are no music used but instead a recorded audio are played each time a user scores a goal.

vi. Muslim Kids Series: Dua by Yufid Inc. **(Mobile)**

Source: https://play.google.com/store/apps/details?id=org.yufid.mksdua&hl=en



KidsDua is a mobile application that helps Muslim kids to memorize daily prayers. There are a total of 39 prayers that was aligned in a grid of three. Each comes with a recorded audio of respective prayers. To make it even easier to recognize, a computer graphic is designed matching all 39 elements.

vii. Duolingo: Learn Languages Free by Duolingo **(Mobile)**

Source: https://play.google.com/store/apps/details?id=com.duolingo&hl=en

Duolingo is developed to help beginners to learn foreign languages. There are a total of 5 different languages including German, Portuguese, French, Italian and Spanish. Each comes with a several levels based on the user's performance. Audios and pictures are used in aiding users to understand and memorize the words that it represents. The learning process are handled through question and answer sessions, Questions are varied either "fill in the blanks" –type, multiple choices or translating each of the words.

viii. Road Safety for Kids (Mobile)

Source: Nur Izdihar (Universiti Malaysia Pahang)

It is software developed by a University Malaysia Pahang (UMP) student which graduates from Faculty of Computer Science & Software Engineering just recently. Just like its name, the software is developed to enhance kids' understandings in road's safety. There are a total of two modes; "Let's Learn" and "Let's Play" in this software. Each was designed with five different types of road safety including "Traffic Light, "Road Sign", "In the Car", "Pedestrian", and "Bicycle". Graphically drawn pictures are designed to represents each of the signs found on the road. No music or audio are recorded in this software.