

ONLINE DOA' FROM AL-QURAN AND HADITH FOR MUSLIM KIDS

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CERTIFICATION OF APPROVAL

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CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

Fatin Farhanah Binti Ahmad Faizul

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ABSTRACT

This paper is prepared to provide an overview on a new approach for Islamic Education Web-based especially for *doa*' for young Muslim children range about 5-7 years old. The main objective of this project is to develop a website to educate young Muslim children on the practice of daily *doa*'. Additionally, a survey has been carried out among 50 respondents and the majority of them are parents and teacher. The aim is to get their opinions in order to identify whether the web-based learning is feasible to be implemented and reliable to be used for the children. Based on the conducted survey, about 54% of respondents that are basically parents and teachers disagreed that teaching about Islam in school are efficient and effective way to be utilized. Therefore, it is believed there should be an alternative method can be used in order to increase their complete understanding about Islam. Hence, about 78% of the respondents agreed that learning about Islam via online is a practical way to be implemented in local market. The usability and interactivity features are the core elements that are going to be focused on. One of the key of interactivity features that is going to be focused is visual narrative. This is because nowadays, people tend to have interest on something that is related to graphic. In the other words, the power of image and narrative enables to allow a great deal of variety in methodology and presentation. However, there is still no existing websites that are offering *doa*' as part of teaching module in interactive way based on researches made recently. Therefore, an interview with the experts from Islamic and Multimedia fields are also have been conducted with the intention of getting the needs and requirements before designing the interface so that it could meet the users' expectations after development process. It can be concluded that it is a great opportunity to develop an Islamic Education Web-based that is focusing on *doa*' as to promote the whole Islamic of Life for Muslim children.

CHAPTER 1

INTRODUCTION

1.1 Project Background

In the yesteryears, in the Malay Kingdom pre-independence of Malaysia, parents sent their children to religious teachers or *Alim* in mosques or 'pondok'(a kind of Muslim learning institution) to learn Islamic teaching. For wealthy or more affordable families they invited religious teachers or *Tok Guru* to their homes for teaching the basic tenets of Islamic studies. These include the most basic *doa*' and Obligatory Prayers to their children. At that time the main references were based on religious text or *Kitab*. This method continued to go on even until the early 1980s.

Now parents can engage their children more efficiently and effectively with various interactive websites and software available which come together with audio, slideshow, and video instruction on how to perform the Islamic prayers or the likes. In these websites they can listen to the Arabic pronunciation, and follow along step-by-step with the movements of the prayer, for instance. In the other words, the children can use the Islamic Education Web-based as part of alternative method in order to improve their comprehension towards the particular subject.

It is a common belief that children can learn on their own using an interactive audio/video format and some with animated figure. One may replay certain parts of the prayer or *doa*', or proceed to the next stage and this really can be done at one own leisure time.

As to engage these children with new learning environment in interactive way, a few elements have been take into consideration in developing a website specifically for learning about *doa*'. User-centered design model has been applied in order to find the targeted users then make sure they would be able to find the information easily based on their requirement. Furthermore, Instructional Design has been applied as well as to organized the contents systematically according to the relevancy to the specified users. Last but not least, simple delivery of the knowledge via storytelling in interactive way as part of attracting these children to learn about *doa*'.

1.2 Significance of the Project

The aim of implementing an interactive learning process through online is to ensure the children will involve actively in play based interactive learning activities instead of learning passively in classroom by listening to teachers. The major advantage of implementing this project via web-based is the application could be accessed from anywhere and anytime as the software does not have to be installed on the local computer as to be used. It is believed there is the need to improvise the application as we will be able to promote it as a fun and new learning method for the children's as well as developing the children's' natural curiosity. The children can keep on learning on how each *doa*' can be applied in their daily life via watching and listening to the tutorial videos; that could be used as a simple approach to suit a child's tender mind as a head start to their education. Besides that, having watching the tutorials they can also develop their understandings and knowledge by taking part in interactive games which come together application program. It is believed that by doing so; the children could increase their critical concepts and thinking, which is vital for a child's mind development.

In conclusion, it is highly recommended to develop a website as a tool of teaching daily *doa*' or prayers for Muslim children. This is because the availability of constant connection of Internet access at anywhere as well as exposure of these millennial (Generation Z) to technology nowadays enable this program to be marketed internationally.

1.3 Problem Identifications

Based on the conducted preliminary survey, about 54% of respondents that are basically parents and teachers disagreed that teaching about Islam in school are efficient and effective way to be utilized. Therefore, it is believed there should be an alternative method can be used in order to increase their complete understanding about Islam. Hence, about 78% of the respondents agreed that learning about Islam via online is a practical way to be implemented in local market.

Besides that, web-based applications on Islamic modules are not really popular among Malaysian despite the benefits they could provide to the learners. Most of the applications are not being fully utilized, especially among Muslim children. From an observation made recently, one of the main reasons for this pattern is due to the lack of interactivity and poor content presentation of the websites. These children would rather play the free game application such as the famous 'Angry Birds' that could be downloaded in mobile phones, tablet pc, or personal computers (PCs).

Last but not least, there is still no existing websites that are offering *doa*' as part of teaching module in interactive way based on researches made recently. Even there is, the presentation about the contents are not really meet the requirement of the users especially for the children itself. Therefore, it is a great opportunity to develop an Islamic Education Web-based that is focusing on *doa*' as to promote the whole Islamic of Life for Muslim children.

1.4 Objectives

1. To examine the existing teaching approaches and tools used in practicing daily *do'a* in early Muslim life.
 - a. To examine the pros and cons of traditional learning method as well as using Internet-based as part of education medium in Malaysia.
2. To determine the main design requirements of a web-based application for *doa*.
 - a. To evaluate whether web- based application is more realistic to be implemented in transferring Islamic knowledge to children, compared to other applications (e.g. mobile app, software and etc.)
 - b. To investigate the parents' and teachers' acceptances toward the online learning process.
3. To develop a website to educate Muslim children on the practice of daily *doa*.
4. To evaluate the web interface in terms of its usability, and its interactivity features.

1.5 Scope of Study

Firstly, *doa* is defined as Noble spiritual form of worship in which a person calls out to Allah SWT of any and every type of help for both for this world and the Hereafter. Rasulullah SAW has declared *doa* as part of *ibadah*. Therefore, one should continue to make *doa* to Allah SWT to forsake *ibadah* as to determine the height of their worship to Him.¹ Hence, it is necessary to teach Muslim children about *doa* in order to make practice as part of their life.

Based on an observation, it is believed the Internet- based education can complement the current traditional learning method due to accessibility to anywhere and anytime. Additionally, there is still no website that is presenting about *doa* as part of its main content. They are rather offering a kiosk website which is mainly to provide information that is not really well structured and allow these users to navigate via the information given instead of organizing and giving the information according to the user needs and requirements.

As the main target audiences would be the children range about 5-12 years old, it is necessary to get opinions and feedbacks from their parents as well as teachers in order to identify whether the web-based learning is feasible to be implemented and reliable to be used for the children. Besides that, a survey will be conducted with the intention of getting the needs and requirements before designing the interface so that it could meet the users' expectations after development process.

Nowadays, people tend to have interest on something that is related to graphic. In the other words, the power of images and narrative enables to allow a great deal of variety. Hence, the usability and interactivity features are the core elements that are going to be focused on. The idea is to deliver the knowledge through storytelling via images, words, audio and video could assist to enhance the learning environment for different type of users. This is because the children have their own learning style as to increase their skills of comprehension and memorization.

¹ <http://www.islam-globe.com/books/Fisabilillah/13%20Solutions%20Through%20Du'as.pdf>

CHAPTER 2

LITERATURE REVIEW

2.1 Islamic Religious in Laws of Malaysia Education Act 1996

The last amendment of The Education Act 1996 was on January 2006. Teaching about Islamic religion has been stated in Education Act 1996. According to the law, it states that the pupils shall be given religious teaching in Islam if there are five or more pupils professing Islamic religion. Furthermore, learning about Islamic religious could be highlighted as important as other subjects in any institutions when the Minister appoints the teaching required should be at least two hours a week within a period. Besides that, there also governors or other people who are responsible to make arrangement to manage the educational institutions. It shows that the Malaysian Government has shown their responsibility to take part in enhancing Islamic religious as important subject that the pupils need to learn about. It believed it could promote the Islamic way of life among the Muslim pupils within the country².

2.1.1 Formal Education Structure for Primary School

Ministry of Education of Malaysia states the children begin their primary education at the age of seven years. Primary school education is a continuation of the pre-school education. Apart from reading writing and arithmetic, they will be exposed to other subjects such as science, physical education and Islamic education and morality. Then, at the end of Year 6, they will face the Primary School Achievement Test (UPSR). Basically, they will be tested on³:

- Reading, writing and comprehension of Bahasa Malaysia and English
- Mastery of mathematical skills
- Mastery of science concepts

Table 1 shows the subjects that have offered in primary education currently.

² Laws of Malaysia Reprint Act 550 Education Act 1996

³ <http://www.moe.gov.my/v/pelajaran-rendah>

Primary Education Level	Basic Subject	Compulsory Subject	Additional Subject
Level 1 (Year 1-3)	<ul style="list-style-type: none"> • Bahasa Melayu • English Language • Bahasa Cina (SJKC) • Bahasa Tamil (SJKT) • Mathematics • Science • <i>Pendidikan Islam</i> • Pendidikan Moral 	<ul style="list-style-type: none"> • Pendidikan Jasmani • Pendidikan Kesihatan • Pendidikan Seni Visual • Pendidikan Muzik 	<ul style="list-style-type: none"> • Bahasa Cina Komunikasi • Bahasa Tamil Komunikasi • Bahasa Arab Komunikasi • Bahasa Iban • Bahasa Semai
Level 2 (Year 4-6)	<ul style="list-style-type: none"> • Bahasa Melayu • English Language • Bahasa Cina (SJKC) • Bahasa Tamil (SJKT) • Mathematics • Science • Kajian Tempatan • <i>Pendidikan Islam</i> • Pendidikan Moral • Pendidikan Sivik dan Kewarganegaraan 	<ul style="list-style-type: none"> • Pendidikan Jasmani • Pendidikan Kesihatan • Kemahiran Hidup • Pendidikan Seni Visual • Pendidikan Muzik 	<ul style="list-style-type: none"> • Bahasa Cina Komunikasi • Bahasa Tamil Komunikasi • Bahasa Arab Komunikasi • Bahasa Iban • Bahasa Kadazandusun • Bahasa Semai


Table 1 Subjects Offered in Current Primary Education

2.2 Importance of *Doa'* in Muslim Social Life

Actually, *doa'* also could be considered as an essence of *ibadah*. As to avoid belief in all false gods, a person could engaged to affirm his belief in Tawheed,; belief in one God that is Allah through *doa'*. This is because *doa'* is defined as a conversation occurred between Allah (the God) and His people. This is because only Allah could help His people to lift their sufferings and solve their problems as well. As a result, these people would feel relieved after describing their difficulties to Him. Absolutely, they feel empowered by having communication with the Creator, Allah SWT⁴.


2.3 Existing Web-Based Applications

2.3.1


TITLE	
URL	http://www.islamkidsmedia.com/imediav2/
DESCRIPTION	<p>It is crucial to promote a knowledge industry with Islamic Digital Content. The main vision is to aspire to become an International Centre of Basic Islamic Knowledge. The main elements that are being promoted are:</p> <ul style="list-style-type: none"> • Names of Allah • How to perform <i>wudhu'</i> • First step to learn Arabic • Moral stories • Great contributions of Muslim scholars
GAPS	<ul style="list-style-type: none"> • Most of the applications just can be subscribed by iPhone/ iPod users only. • Does not include <i>doa'</i> within the application.

⁴Khalid Baig, "The Power of *Doa'*", unpublished


2.3.2

TITLE	
URL	http://islam4parents.com/
DESCRIPTION	To help Muslim parenting to guide their children in a fun and entertaining manner. This is because it is essential to build a healthy Islamic household every day in daily life.
GAPS	<ul style="list-style-type: none"> • There are no a lot of options of interactive activities for Muslim children. For an example, interactive word searches for children. • Secondly, the features of the site are also not attractive with abundance of information. • The contents were presented via words only. Not really interactive enough to enhance the children's comprehension skill. • Does not include <i>doa</i>' within the website.

2.3.3

TITLE	
URL	http://www.islamicplayground.com/Scripts/default.asp
DESCRIPTION	Islamic games, quizzes, puzzles, Arabic alphabet games, Islamic stories and much more as to ensure the Muslim children can enjoy themselves throughout these interactive activities.
GAPS	<ul style="list-style-type: none"> • The website is offering a lot of games without giving any tutorials before doing the activities. • Does not include <i>doa</i>' within the website.

2.3.4

TITLE	
URL	http://www.islamicnet.com/
DESCRIPTION	<p>To develop the children to identify Arabic alphabets as well as learn to read the holy Qur'an with proper <i>tajweed</i> rules. Other elements that are also offered through this course are:</p> <ul style="list-style-type: none"> • Qur'an memorization and <i>Tafseer</i> • Qur'an translation • Arabic and Urdu Course
GAPS	<ul style="list-style-type: none"> • The ways of presentations are not attractive to attract the children to read the given articles and re-visit the site. • Abundance of information. Does not organize the contents according to users requirements. • Does not include children as the targeted users. • Does not include <i>doa</i>' within the website.

2.4 Instructional Design in Online Learning

The main objective of applying instructional design model in online learning is to facilitate the users to learn and apply relevant skills and knowledge via a great online learning course. Below are the key elements that should be considered in applying the instructional design model within the website development.⁵

2.4.1 Three Things to Consider When Building E-Learning Courses

a. Focus on meaning not the Information

Sharing information is a part of learning process. The focal point of sharing knowledge through online should be the learners not just focusing on the information given in order to build better e-learning course. From the observation, most of e-learning courses seem to be focused exclusively on sharing information. Thus, it makes the users tend to focus more on information rather than learning.

b. The e-learning course is just one part of a complex

Learning process as to increase the understanding level towards the knowledge poses is taking more than 30 minutes e-learning course. Normally, people could raise their comprehensive through social interactions and experiences. In a sense, learning is like an ecosystem.

a. Instructional designers are intentional

Learning is a complex process. The information should be presented in meaningful and smart approach in order to ensure the information is being important to the users. Normally, graphical images are used to represent the information so that it could be clearer to understand. Hence, the users would not misconception on context and relationship.

⁵ <http://www.articulate.com/rapid-elearning/instructional-design/>

2.4.2 Three Simple Techniques to Guide Learner's Attention

a. Show them the big picture and let them see everything in context

It gives an opportunity for the users to explore the screen content freely and put them under a position of discovery. Besides that, it also can facilitate the users to see the overall context and make connections via presenting the entire information at one time through one whole big picture. Furthermore, it can provoke the learners to think by asking the questions instead of just telling them the information.

b. Point out those parts of the screen that are important

It enables to draw attention of the learners by pointing things out on the screen. It can give them the big picture but still focusing on certain things more specific. This technique could be done with simple annotations or animations.

a. Show the learners the information as what get to it

Use a progressive method as to reveal the information on the screen. Do not distract the learners with information that they do not need. If not, it could take time for the quick learners or ones that already understand the content. This is because they have to wait where and when they actually learn something new.

2.4.3 Five Ways How E-learning Courses Can Create Understanding

a. Establish clear learning objectives

As to reach the goal to engage the learners, a clear learning objective has to be created.

b. Determine what evidence proves the understanding

It has to demonstrate the understanding by doing given activities. There must be a reason on why each task is given. Therefore, surely it can determine whether the established learning objectives before have been achieved or not.

c. Build the course to provide information and create a learning experience.

It can build the experiences into the course as to prove the learners' understanding at the desired level. Therefore, it has to put the learners into a situation where they can use the information and apply them to the nuances of real life decisions thus the learners' grasp of the information could be measured.

d. Create the ability for learners to reflect on the information.

- Ask the learners questions so that they could think about the information in an important context to them.
- They can take the information out of the course and put it into the real world by reviewing the scenarios or case studies given.
- Help them in personalizing the information by creating some sort of learning journal where the learners have to think about the course information and write out their thoughts.

e. Create a way for learners to explore.

- Present a challenge and have them look for an answer from search engine, Google rather than just giving them the information
- The learners have to make a choice then gain feedback specific to the choice made via scenario-based branches.
- Build an environment where the learners can modify variables to see the cause and effect of their decisions.

2.4.4 How to Get the Learners to Remember More

a. Organize Content into Small Chunks

Learning process could be interfered if not relevant information is given too much. Thus, do not overload the working memory with irrelevant content. It has to make sure the new information is structure into small and related chunks so that it is optimized for working memory.

b. Build upon Prior Knowledge

Case studies and practices exercises are the good example where the learners can practice using the information in a context that integrates it with prior experience. It is believed the information can be structured to combine the new information with the learner's current understanding.

c. Provide Real-world Context

The learners could apply the new information into workplace context via practicing the exercises created and real-world scenarios within the learning process. Besides, it also could develop thinking skills that could be transferred to the real world via problem solving scenarios. Hence, it could pull the information out of long-term memory and transfer it to a real world context.

2.5 User-Centered Design to Increase the Usability of the Website

It is necessary to accommodate each user attribute of the set of targeted users in order to enable the users to experience success and satisfaction. It is believed that any web site will have unique features as to meet the needs of its targeted audiences in order to make it available to the world. Same argument to The World Wide Web Consortium (W3C), they give guidelines and success criteria for accessing accessibility, part of usability by considering the needs of users with a wide variety of disabilities. An accessible web site should be providing perceivable content, operable content components, understandable content and controls and content compatibility with other technologies for the users with special needs. All the activities are connected to each other. Additionally, usability engineering and software engineering processes occur simultaneously within each activity. It can be considered the sequence of the activities is adaptable. Therefore, it has to use a generic lifecycle where it could present a high level view of user-centered software engineering activities. This is because each activity has its own goals, inputs, processes, and products. Below are the activities that are providing accessibility for people with disabilities. Figure 2 shows the core activities are project planning, requirements definition, design, and evaluation/ testing.

User-centered design approach is utilized in order to find the potential visitors of the website. The developers would create different viewpoint for different types of users. This is because different types of users would have their own information requirement. In the other words, the developers would create distinction of the information in interactive way so that these users would find the information more easily and could avoid any information which is not relevant to them as well. Usability and user experiences always be an important indicator to determine the success of a website. Therefore, user-centered design approach could assist in increasing the usability of the website then creating a greater satisfaction for the users itself. Table 2 and Figure 1 shows the summary about the user-centered design approach and its steps respectively.

User-Centered Design

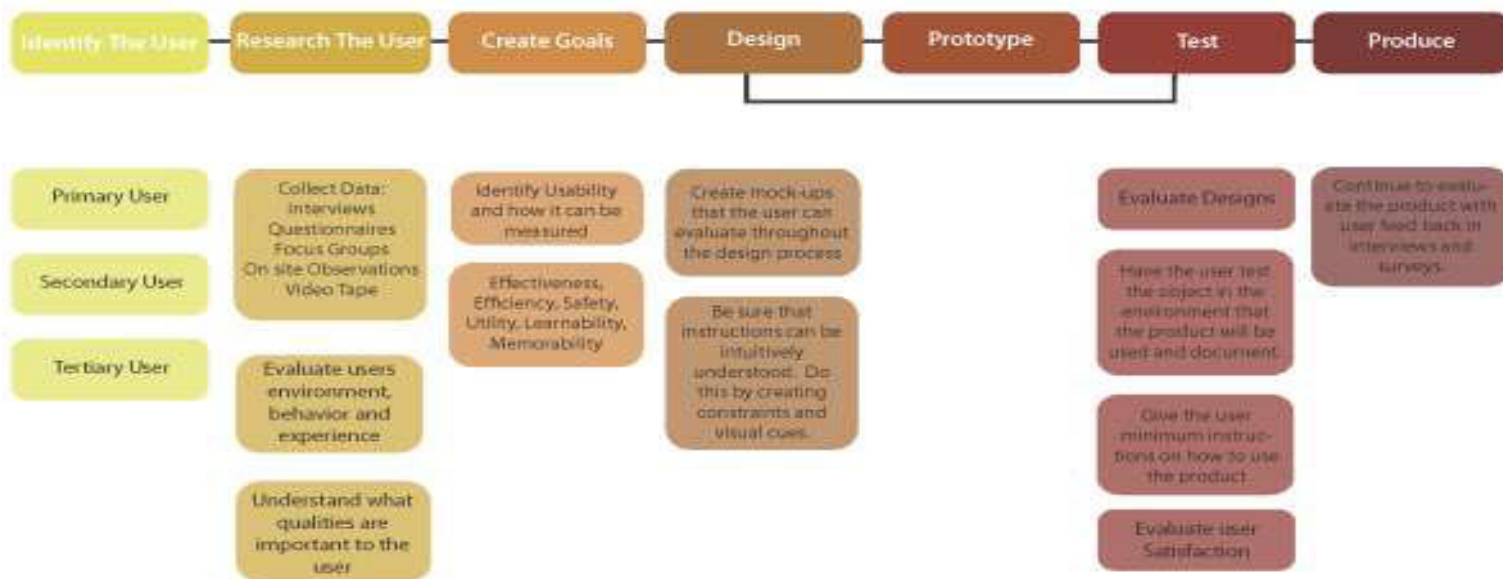
- Focus is on users: User experience and satisfaction
- Driven by user input
- Substantial user involvement
 - User studies
 - Participatory design
 - User feedback
 - User testing
- Design by iterative prototype
- Highly varied, informal, or unspecified process
- Design by trial and error, evolution

Table 2 UCD Characteristics

7 Phases of User-Centered Design

When the user becomes the Co-Designer

Britt Wilcox
Kyun Hur
Mary Elizabeth Miller



Works Cited:
 Sanders, Elizabeth B. "From User-Centered to Participatory Design Approaches." In *Design and the Social Sciences*. Bp. in Taylor & Francis Limited, 2002.
 User-Centered Design. Atlas, C., Maloney-Krichman, D., Preece, J., (2004) User-Centered Design. In Barnardridge, W. *Encyclopedia of Human-Computer Interaction*. Thousand Oaks: Sage Publications.
 "User-Centered Design". [Wikipedia.org](https://en.wikipedia.org/wiki/User-centered_design). 10 Jun. 2010. Web. 16 Jun. 2010.

Figure 1 7 Phases of UCD

2.6 Interactive Storytelling Applied to Web Design

The interactivity of the website could be advanced if the developers could increase the user experience within the website itself. Nowadays, teachers have incorporated multimedia as a medium to transfer their knowledge to students. As to gain interest and attention from their students, these teachers always find alternatives such as digital storytelling as part of teaching tools. Thus, it could enhance the learning styles for different types of students. The significance of complementing digital storytelling with the current teaching tool is to ensure that it helps teachers facilitate the class discussions and to help students to gain better understanding as well. This is because basically, students have a tendency to listen and comprehend certain knowledge or information through storytelling. Thus, it is obvious that storytelling is a powerful tool for transferring knowledge to students generally. Pictures, music and narration are the main aspects that always take into consideration as to enhance the learning styles of each student via digital storytelling.

2.7 Easy to Learn & Easy to Remember are the Usability Goals for Human Computer Interaction (HCI) Implementation

Learnability and memorability are the goals of usability in creating a system. According to Preece, Rogers, and Sharp (2002), they said learnability is always referred to 'how easy to learn to use a system'. Basically, users would not go to use much effort in exploring the website as to carry out certain tasks. In other words, they have a tendency not to spend a long time in learning how the system operates.

Besides that, the authors also define memorability as 'how easy a system is to remember how to use, once learned'. It means that there is a possibility the users would not remember how to utilize the system if they have not operated the system for a few months or even longer. In other words, the developers must ensure to develop a system or application in which the users do not require to learn on how to operate the system again. If not, it would be an opportunity cost to the users to keep learning on how to utilize the system then wasting their time. Designing of the interface by using meaningful icons, command names, and menu options could help the users to remember where to find a particular tool at a given stage of task.



2.8 User Interface Design

There eight principles for user interface design. They are:

- **Layout**

- a. *The 4 Second Rule*

It is crucial to satisfy the users' needs quickly so that they can make good judgment upon a website within the first four seconds of the loading page. On the other hand, the users will abandon it immediately if the information is not presented in a clear and concise manner on the site's homepage.

- b. *Chunk Information into Small Sections*

It can help to facilitate the users to scan of the page by breaking the information into smaller sections and meaningful groups. The users can skim the content easily without having to read each individual paragraph.

- c. *Color*

Different background colors by grouping like items together by color are a subtle but effective visual cue for users. This is because it can help to differentiate various parts of the page. Besides that, it also can help define and mood as well as add personality to the site.

- d. *Proximity*

Grouping the objects that lie close to one another in the same category enable to avoid the users receive confusing and mixed message. Therefore, it is highly recommended to place images near to the text so that it looks relevant to one another.

- **Content awareness**

As to make sure the users aware of the information it contains with the least amount of effort on users' part. Below are the examples of key points that should be having within the website.

- b. All interfaces should have title
- c. It should be clear what information is within each area
- d. Fields and fields labels should be selected carefully

- **Aesthetics**

The interface should be functional and pleasing to the eye. Below are the some guidelines that should be considered in designing the interface:

- b. Avoid using all capital letters
- c. Be aware of font and size
- d. Use colors and patterns carefully in order to categorize items

- **User experience**

Normally, novice users prefer ease of learning while frequent users prefer ease of use.

- **Consistency**

- a. The users able to predict what will happen before they perform a function.
- b. Make the system easy to use
- c. Reduce learning curve
- d. Consider items within an application and across applications

- **Minimal user effort**

Have to make sure the mouse click should not be more than three clicks from starting menu till the users perform work. It has to be simple to use.

CHAPTER 3

METHODOLOGY

3.1 Project Methodology

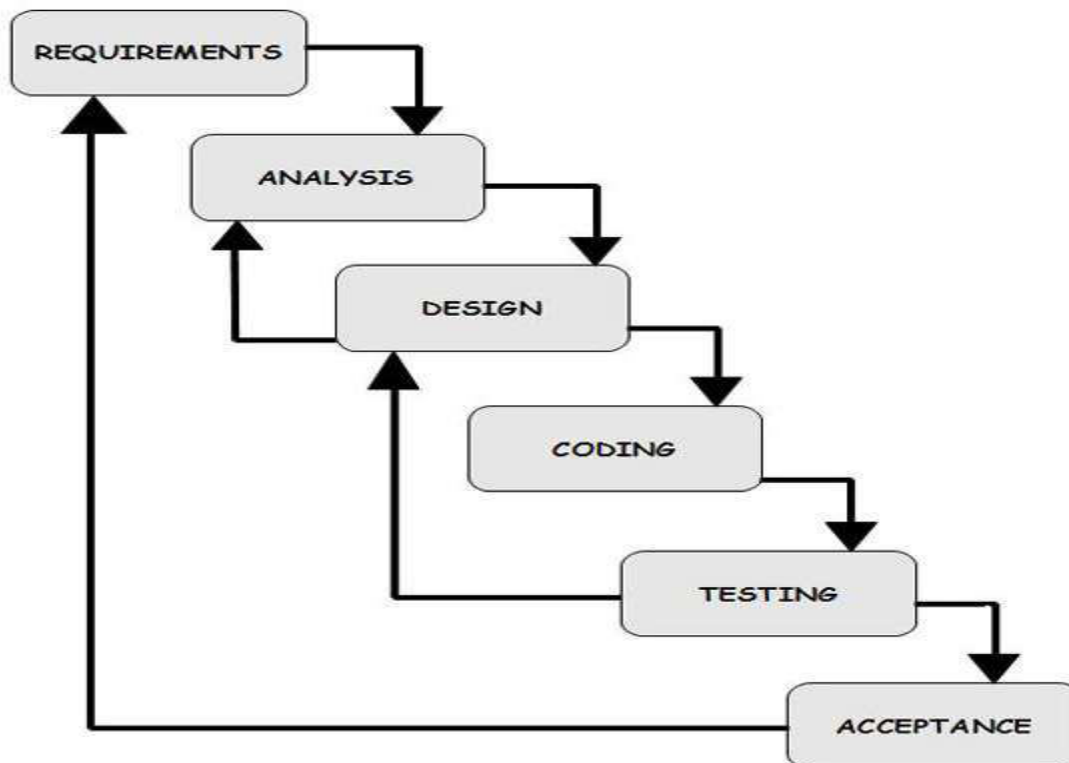


Figure 2 Waterfall Model

The waterfall model is normally using the software development life cycle's (SDLC) in which enforces moving to the next phase only after the completion of the previous phase. In a waterfall model, it is very simple to understand and use as each phase must be fully completed before the next phase can begin. Basically, this model is used when the product definition is stable and the requirements are very well known, clear, and fixed.



It is clearly stated in introduction part that the main aim of the project is to promote daily prayers or *doa*' for Muslim children in daily life. A survey is conducted among the parents and teachers as to evidently identify what are the advantages and disadvantages of online learning over the traditional learning method in schools. Besides that, the objective of the survey also to evaluate whether the web- based application is more realistic to be implemented in transferring Islamic knowledge to children compared to other applications. Furthermore, it is going to investigate on parents and teachers acceptances towards the online learning process currently also to examine the existing teaching approaches and tools used in practicing daily prayers or *doa*' in early Muslim life. Besides that, an interview with the experts are also being conducted in order to identify the set of design requirements on presenting the daily prayers or *doa*' that meets the children's and guardians' expectations in accordance to the correct School of Thought from Ahlul Sunah Wal Jamaah or Salafi. Therefore, there should be no ambiguous requirements needed throughout the process as well as make sure the technology that is going to be used is well understood. It is easily to get parents and teachers as part of the survey activities especially during the school events or during peak hour in which the parents take their children from school. A review takes place at the end of each phase as to determine if the project is on the right path. It is easy to manage due to the rigidity of the model throughout the life cycle. It can be concluded that the process is more manageable then it make the procedures are simpler and easy to understand and use.⁶

⁶ <http://istqbexamcertification.com>



3.2 Project Activities

Steps	Activities
PLANNING	<ol style="list-style-type: none"><li data-bbox="472 359 1529 808">1. Survey with Muslim parenting as well as teachers<ul style="list-style-type: none"><li data-bbox="472 407 1529 478">• To identify the pros and cons of traditional learning method as well as using Internet-based as part of education medium in Malaysia.<li data-bbox="472 499 1529 619">• To evaluate whether web- based application is more realistic to be implemented in transferring Islamic knowledge to children compared to other applications (e.g. mobile app, software and etc.)<li data-bbox="472 640 1529 711">• To investigate on parents and teachers acceptances toward the online learning process currently.<li data-bbox="472 732 1529 804">• To examine the existing teaching approaches and tools used in practicing daily <i>doa</i> ' in early Muslim life. <li data-bbox="472 869 1529 1409">2. An interview with the experts<ul style="list-style-type: none"><li data-bbox="472 917 1529 1081">• <i>Interviewed Ustaz Rahmat Abu Seman in An-Nur Islamic Centre</i> To identify the set of design requirements on presenting <i>du'a</i> that meets the children's and guardians' expectations in accordance to the correct School of Thought from the Ahlul Sunah Wal Jamaah or Salafi.<li data-bbox="472 1102 1529 1222">• <i>Interviewed kindergarten teachers</i> To identify the best effective presentation to deliver the Islamic knowledge to young Muslim children.<li data-bbox="472 1243 1529 1409">• <i>Have a consultation with Ustaz Ur-Rahman from Management and Humanities Department</i> To check all the contents accessible within the website for the students ranging from 5 to 12 years old. <li data-bbox="472 1474 1529 1638">3. Study on the existing websites and applications in current market<ul style="list-style-type: none"><li data-bbox="472 1522 1058 1547">• Do online research on the existing Islamic website<li data-bbox="472 1568 1529 1640">• Attend an exhibition, i-Nova 2013 organized by USIM as to study on the new Islamic applications that offering for the children to learn about <i>doa</i> ' as well



ANALYSIS	<ul style="list-style-type: none">• Conduct a user-acceptance testing for first phase among 46 students ranging from 5 to 12 years old in SK Padang Tembak (1)• Conduct a user-acceptance testing among the secondary users; parents and teachers as to gain feedbacks from their perspectives• Conduct a second user-acceptance testing among Muslim children ranging from 5 to 12 years old• Use Weka 3.6.9 to execute the testing results• Analyze the data from conducted survey by using basic statistic as well as the interview with the experts in Islamic education field from critical and user point of view.
DESIGN	<ul style="list-style-type: none">• To develop a website for Muslim children on the practice of daily <i>doa</i> /prayer based on the design requirements.• To evaluate the web interface in terms of its usability and its interactivity features.
IMPLEMENTATION	<ul style="list-style-type: none">• Execution of the website development• To evaluate test again the web development in terms of its usability and its interactivity features.

Table 3 SDLC Project Activities

3.3 Methods of Data Collections

The Web-based Islamic Education specifically for teaching on practicing *doa* or prayers is going to be implemented by end of this year, 2013. The targeted audiences are Muslim children ranging about 5-12 years old as the primary users for this application and their parents as well as teachers who are found this new education tool as an effective teaching method could be act as the secondary users for this website. A *survey* was conducted in order to get responses as well as acceptances from the guardians about the online learning. Besides that, an *interview* was conducted with kindergarten teacher in one primary school that is located in Semarak, Kuala Lumpur. The objective of conducting the interview is to compare the traditional learning method in schools currently with the Internet-based education. Furthermore, study about children also take into consideration as to ensure the learning styles implemented within the website suits to their requirement. Furthermore, *interviewing with the experts in Islamic education as well as in multimedia field* also have been conducted throughout the planning phase. The aim of conducting the interview is to gather users' requirements in term of usability as well as the interactivity features that are required in designing the website. The contents that are accessible within the website also have been evaluated by the expert as to ensure the information provided could meet users expectation and increase their satisfactions while using the application. Last but not least, *conducting a testing* with both primary and secondary users as to gather their feedbacks for better improvement in term of design and contents that are available within the website. After that, the data were collected to be analyzed by using Weka 3.6.9 in order to get depth insight about the realistic of the implementation of the website in transferring the Islamic knowledge to children compared to other applications and methods.

3.4 Required Tools

Hardware	Software
<ul style="list-style-type: none">• Personal computer• Input devices (e.g. mouse as to create the website more easily)• 8GB hard drive to handle pictures, videos, large amounts of text and additional software programs.• Wireless modem for high speed Internet access• CD/ DVD as to back up the material	<ul style="list-style-type: none">• Xampp v.3.2.1• Windows Movie Maker 2.6• Xilisoft Video Converter• QuizCreator

Table 4 Hardware and Software Tools



3.5 Gantt Chart

Key Milestone

		Final Year Project I														Final Year Project II													
No.	Activities	Weeks														Weeks													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Selection of supervisor	█																											
2	Submit Project Title Proposal			★																									
3	Getting Proposal Approval				█																								
4	Submit Draft of Extended Proposal					█																							
5	Submit Extended Proposal						★																						
6	Construct the structure of the questionnaires						█																						
7	Carry out survey and interview							█																					
8	Analyze the data collected							█																					
9	Proposal Defense and																											★	



Progress Evaluation																													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10	11	12	13	14
10	Submit Interim Report														★														
11	Develop prototype															[Blue bar from column 1 to 9]													
12	Consultation with Usta Ur-Rahman																[Blue bar]												
13	First-Phase Testing																[Blue bar]												
14	Submit Progress Report																		★										
15	Redesign the prototype															[Blue bar from column 1 to 9]													
16	Last-Phase Testing																					[Blue bar]							
17	Pre-Sedex																								★				
18	Submit First Draft Dissertation																									★			
19	SEDEX																										★		
20	Submit Technical Report and Dissertation																									★			
21	VIVA																										★		
22	Final Dissertation (Hard Bound)																											★	

CHAPTER 4

RESULTS AND DISCUSSIONS

4.1 Requirements Analysis

4.1.1 Evaluation on the current teaching tools for Islamic Education for Muslim children

A **survey** was distributed among teachers and parents as to get their opinions regarding to the current teaching tools for Islamic education in kindergartens and schools. The survey was distributed in residential village at Jalan Semarak, Kuala Lumpur.

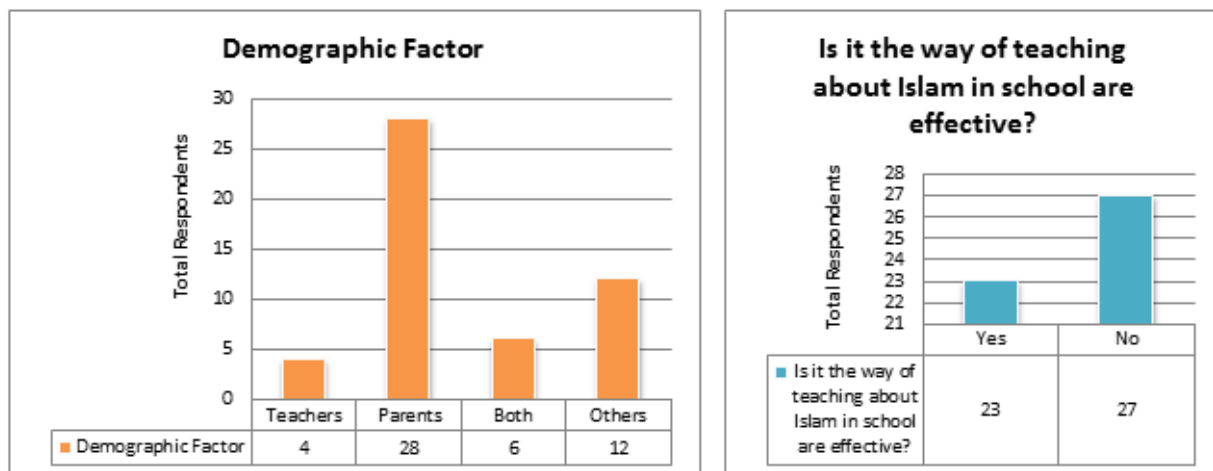


Figure 3 Results of the Survey

As the result, 54% of the respondents do not agree the current tools that have been used to teach about Islam in schools or even in kindergartens. They said the current teaching tools are not really effective to be utilized as to create a noble *Muslim* and *Muslimah* in future. They are also commented the way of presenting about Islam does not totally give the impact to the children as to practice in their life. They do not even realize the Islamic way of life is the best practices that they should do. For that reason, a new medium to teach about Islam should be implemented as to ensure these children would able to recognize the importance of practicing Islamic way of life to themselves.

4.1.2 Determine the main design requirements for website development

Besides that, an **interview** also has been conducted as to determine the main design requirements for developing the website. The interview session was takes place about 10-15 minutes with Mrs. Ainalita. The interview was conducted in Pre-school of Permata Aktif in SK Padang Tembak on 13th May 2013.

Mrs. Ainalita is a kindergarten teacher. She has been teaching at the pre-school almost 10 years. Thus, it is believed that her 10-years experiences could show her capabilities in teaching the children ranging from 5-6 years old.

Studying about the children behaviors in class is necessary as to ensure the website development would meet the primary users (children) expectation. According to Mrs. Ainalita, nowadays the children most likely have the tendency to memorize on what they have learnt through music. Based on the research that has been made, the children would able to recall a moment from their past that is connected to that tune when they hear a familiar song. Thus, it is believed that music would able to help in learning process as stimulate parts of the brain as to enhance memory. Additionally, she said the brain of the children would be stimulated if they are involving in activities or games as to enhance their memorizing and comprehensive skills. Hence, it could be concluded that by having these two main elements would be able to create a website with interactive features then would be able to retain the interest of these children to seek the knowledge more effectively.


Furthermore, another **interview** was conducted with Ustaz Rahmat Abu Seman in An-Nur Islamic Centre. The interview was takes place about 30 minutes. The main purpose of conducting the interview is to get his opinion regarding to this project. During the interview, he has suggested a few elements that the developer should consider before start implementing the website. According to him, it is necessary to study about pedagogical aspects. The elements absolutely could help to maintain the interest of the children towards seeking the knowledge through the website. For an example, the children would be able to memorize the *doa*' more effectively if the developer able to organize the contents more attractively. Perhaps, by chunking the words (*doa*') would have high possibility for the children to memorize the *doa*' more



effectively. Besides that, the developer also should insert audio and video elements as to form an interactive environment. Another suggestion, the activity modules that could use Voice Tracking Recognition would be able to be more efficient to help these children to enhance their memory and comprehensive skills. The modules should have a few levels of difficulties as a part of evaluation to test the students' comprehension about *doa* '.

4.2 Study on Existing Islamic Education Applications in USIM

Universiti Sains Islam Malaysia (USIM) has organized an exhibition, i-Nova (Exposition on Islam Innovation) in collaboration with few institutions such as USM, ASM, MOSTI and KPT. The event was conducted on 26th October 2013 at Nilai Indoor Stadium, Negeri Sembilan. The main objective of conducting the exhibition is to introduce innovative products from higher learning institutions from local and abroad. Below are the few applications specifically for *doa* that have been introduced during the exhibition.

Name of Institution	Name of the Application	About the Project	Criteria	Target Audience
	Ashraff Dan Adab on IOS	An application that allows high functioning autistic children to learn about Adab (ethics) <ul style="list-style-type: none"> • Via interactive and fun method according to their own pace • It would help students getting Islamic knowledge and values • To utilize mobile technology in their learning method assist by their parents and teachers 	<ul style="list-style-type: none"> • Short 3D animation video so that the autism children could easily capture the message conveyed • The animation is using Bahasa Malaysia • The <i>doa</i> would be learnt via karaoke version so they could learn the pronunciation more correctly • It is an IOS application that would be available on App Store 	<ul style="list-style-type: none"> • Targeted to high functioning autism children • Normal children could use the application as well to learn about <i>adab</i> (ethics)



Name of Institution	Name of the Application	About the Project	Criteria	Target Audience
	i-Isyarat	<ul style="list-style-type: none"> It is an interactive multimedia courseware as to assist impaired children especially for those who are deafness. The application helps the children to learn the basic of <i>Fardhu Ain</i> (e.g. Pillar of Iman, Pillar of Islam and daily prayer) via sign language 	<ul style="list-style-type: none"> Use sign language based Empathize on learning about basic of <i>Fardhu Ain</i> An interactive multimedia courseware that using multimedia elements such as video animation, audio, pictures and text 	<ul style="list-style-type: none"> Deafness children Normal users as to learn the basic of sign language
	Name of Institution	Name of the Application	About the Project	Criteria
	i-Faqeh	<ul style="list-style-type: none"> Faqeh Interactive Courseware to assist slow learner children who are having problem to understand their learning and the traditional method of learning To facilitate the children to learn in fun way To help teachers and parents to teach them the skills in understanding concept of <i>Fardhu Ain</i> 	<ul style="list-style-type: none"> It consists of three main modules (learning module, activities module, and entertainment module) Present a learning about <i>Fardhu Ain</i> in two ways of interactions and easy to use Use multimedia elements (animation, audio, video, pictures and colours) 	<ul style="list-style-type: none"> Dylexia children Suitable for normal users as well

Table 5 Islamic Education Application Available in Market

4.3 System Analysis

4.3.1 User Interface Design



Figure 4 Conceptual Model of the Website Interface Design

Visual narrative and usability are the main aspects in designing the interface. First, the visual narrative is utilized as to enhance the interest of the children. After collecting the feedbacks from parents and teachers, basically the children have high tendency to memorize about certain information if it is supplemented with graphical elements and music.

‘Easy to remember’ and ‘easy to learn’ are the goals of the website development. It is believed both audio and video tutorials would increase the usability element of the website itself. Some researchers said the usability of the website could enrich the users’ experience when they are interacting with the systems itself. Thus, it is believed the effectiveness and the overall satisfaction from the users could be achieved.

The website comprises of two main sections; audio and video tutorials. Both tutorials are representing the same listed *doa*’ from Al-Quran and Hadith sources. The list of *doa*’ is below:

Audio and Video Tutorials	
Al-Quran	Hadith
<ul style="list-style-type: none"> • Prayer for heart enlightenment • Prayer for the world and hereafter benefits • Prayer protection from <i>satan</i> • Prayer for plenty of blessing and guidance • Prayer for the grace of God • Prayer when in distress and emergency 	<ul style="list-style-type: none"> • Prayer upon waking up • Prayer before eating • Prayer after eating • Prayer when entering toilet • Prayer when coming out from toilet • Prayer before going to sleep

Instead of encouraging these children to memorize each *doa*’, there is an opportunity for them to learn about the concept of *doa*’ as well. There is some sort of extra information for these children to gain. Furthermore, these children also would gain benefits of knowing in depth about both Al-Quran and Hadith since both are the main sources for all Muslims to refer as a guidance. It is believed it would be a part of to instill a love of Allah SWT and Rasulullah SAW by studying both Al-Quran and Hadith. Below are the sub-categories for both topics :

Tutorials	
<i>Doa</i> ’ is a Muslim Weapon	Al-Quran and Hadith
<ul style="list-style-type: none"> • Definition of <i>doa</i>’ • Manners of performing <i>doa</i>’ • Efficacious time to perform <i>doa</i>’ 	<ul style="list-style-type: none"> • General information about both Al-Quran and Hadith • Story about Prophet Muhammad SAW

4.3.1.1 Video Tutorial

Each video is streaming by using Flowplayer. For the information, Flowplayer is a simple customizable player for those who host the video files. It is an open source video player for the web. From the own server, it is an easy way to stream the videos in the pages instead of using external video services such as You Tube. The benefit of utilizing this player is the users cannot escape when the video is live. Therefore, the children have to watch the video till the end as to complete their learning process.

Besides that, the children would learn about manners as well when performing for each *doa'* while watching the video. It is purposely to list out maximum of three videos for each page. The reason is to ensure these children would remember more about content rather than the information itself. In the other words, it could help to optimize for working memory when there is new information that is structure into small and related chunk. The flow of every *doa'* is based on the daily activities that are usually performed by each Muslim. Hence, they could see an overall scenario about the best way of Islamic of life. The purpose is they could apply these knowledge into real-world scenario. The reason is practicing also could be considered as part of learning process.

Furthermore, the loading process could be reduced as well. It is a best practice to make sure the web page is fast-access. Therefore, the web developer has to analyze the website as to ensure the performance of the website would be optimized as possible and meet the users overall satisfaction.



4.3.1.2 Audio Tutorial

Visual narrative elements are mostly like to be utilized currently in order to increase the use of multimedia in teaching. It is an opportunity for the children to learn and understand of certain knowledge more effectively if it is represented using of multiple representation via text, video, audio and images. This would help to increase their understanding that suits with their different learning styles. Audio tutorial would help these children to learn on how to pronounce each *doa*' more accurate and clearly. Besides that, each button that is provided has its own function. Both blue and pink buttons would display *Asbabun Nuzul* (the event for each *doa*') and the manners of performing for each *doa*' as well as the translation of each *doa*' respectively.





4.4 Consultation with Ustaz Ur-Rahman

Having a consultation with Ustaz Ur-Rahman from Management and Humanities Department on 30th September 2013. Throughout the discussion, he has clarified all the contents that should be suitable for the children ranging from 5 to 12 years old. He also gave some suggestions as to improve the content of the website itself.

Suggestions for Better Improvements

- Add up a new section for places that are most effectual to perform *doa*'
- Add up a new section for virtues of performing *doa*'
- Each *doa*' could be attached with *Asbabun Nuzul* (the background of each *doa*')
- Use Book of Tafsir Rahman to obtain a real meaning for each translation
- Add more information about the characteristics of Al-Quran

Table 6 Suggestions from Ustaz Ur-Rahman from Management & Humanities Department

4.5 First Phase of Testing

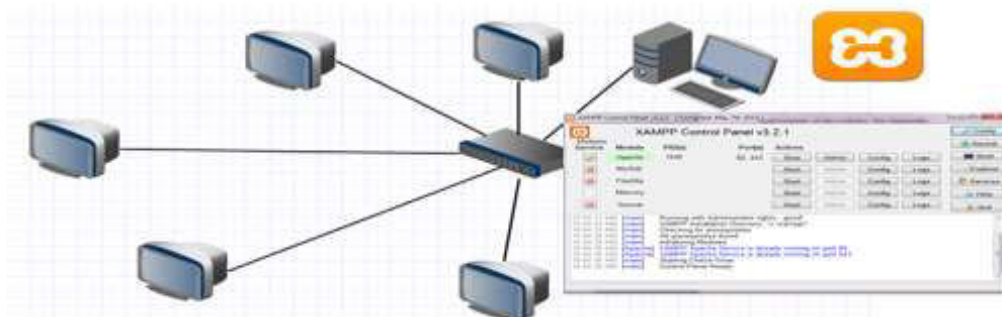
The testing is conducted in SK Padang Tembak (1) in Jalan Semarak, Kuala Lumpur. It was conducted on 4th October. Having a good collaboration with Mr. Fuad, the headmaster and Mrs. Sarizah, the senior assistant of the primary school in assisting the testing preparation then make the testing activity was going smoothly. The testing was conducted within two sessions in the computer lab of the school. The reason is gain the opinions from the students more effectually about the website. The students are allocated according to their age. The morning session starting from 9 to 10 a.m. is allocated mainly for kindergarten students. On the other hand, the primary students ranging from 7 to 12 years old would participate the activity during the evening session starting from 2 to 3 p.m..



Figure 5 Testing Conducted in SKPT (1)

4.5.1 Preparation of Testing Activity

First, getting approval from PKG Keramat as to seek permission to do testing in SK Padang Tembak (1). About 50 students ranging from 5 to 12 years old are highly recommended to participate in the testing . The purpose of doing this is to get more feedbacks from them for better improvement of the website. See Appendix.



Then, an arrangement for the student seating plan during the activity has been done on 3rd October. All the personal computers (PCs) are connected to Local Area Network (LAN). However, that school has slow accessibility to Internet connection. Therefore, all the web pages are uploaded in the internal server (xampp) in order to ensure the students access the web without any connection problems. Below are the software and hardware requirements during the testing.

Hardware and Software Requirements	
Hardware	Software
<ul style="list-style-type: none">• 10 Personal Computers (PCs) Maximum of 2-3 students for each Pcs	<ul style="list-style-type: none">• Xampp Allow the web developer to test the prototype without any access to the Internet• Google Chrome For the best display and functionality

Table 7 Hardware and Software Requirements during Testing Activity

4.5.2 Analysis on the Testing Results

The evaluation of the web interface during the testing activity is focusing on Human Computer Interaction (HCI), Instructional Design, Visual Narrative and Usability aspects. The assessments were conducted among 46 students comprises of female and male students. There are six columns represents the attributes of the data set. They are:

Attributes	Descriptions of the Attributes	Type of Data
Age	<ul style="list-style-type: none"> This is a class attribute. The students from different range of age would give their own perception for the prototype. 	Numerical Data
Gender	<ul style="list-style-type: none"> The students from different gender would give different expectation for the prototype. 	Nominal Data
Human Computer Interaction (HCI)	<ul style="list-style-type: none"> To determine whether the students are satisfied with the interface design. 	Nominal Data
Instructional Design	<ul style="list-style-type: none"> To evaluate whether the presentation of the content is easy to understand. 	Nominal Data
Visual Narrative	<ul style="list-style-type: none"> To evaluate whether the students are enjoy learning from video and audio tutorials. 	Nominal Data
Usability	<ul style="list-style-type: none"> To assess whether the students would able to memorize the <i>doa</i>' easily via the both video and audio tutorials. 	Nominal Data

Table 8 Attributes in Assessment Results

HCI	Instructional Design	Usability	Visual Narrative	Gender	Age
Yes	No	Yes	Yes	M	9
Yes	Yes	Yes	Yes		6
Yes	No	Yes	Yes		6
Yes	No	No	No	F	6
Yes	Yes	Yes	Yes		6
Yes	Yes	Yes	Yes		6
Yes	Yes	Yes	Yes	F	6
Yes	Yes	Yes	Yes		6
Yes	Yes	Yes	Yes		6
Yes	Yes	No	Yes	M	6
Yes	Yes	Yes	No		6
Yes	No	No	Yes	F	6
Yes	Yes	Yes	Yes		6
Yes	Yes	No	Yes	M	6
Yes	Yes	Yes	No		6
Yes	Yes	Yes	Yes		6
Yes	Yes	Yes	Yes		6
Yes	Yes	Yes	No	M	6
Yes	Yes	Yes	Yes		6
Yes	Yes	Yes	Yes	M	6
No	No	No	No	M	6
Yes	Yes	Yes	Yes	M	6
Yes	Yes	Yes	Yes	M	6
Yes	Yes	No	Yes	M	9
Yes	No	Yes	No	M	9
Yes	Yes	No	No	M	9
Yes	Yes	No	No	M	9
Yes	Yes	No	No	M	9
Yes	Yes	Yes	Yes	F	9
Yes	Yes	Yes	Yes	F	9
Yes	Yes	Yes	Yes	F	12
Yes	Yes	Yes	Yes	F	12
Yes	Yes	Yes	Yes	F	12
Yes	Yes	No	No	F	12
Yes	Yes	Yes	Yes	F	12
Yes	Yes	No	Yes	F	12
Yes	Yes	No	Yes	F	9
Yes	Yes	Yes	Yes	F	12
Yes	Yes	Yes	Yes	F	12
Yes	Yes	No	Yes	F	9
Yes	Yes	No	Yes	F	12
Yes	Yes	No	Yes	F	9
Yes	Yes	Yes	Yes	F	12
Yes	Yes	Yes	Yes	F	12
Yes	Yes	Yes	Yes	F	9
Yes	Yes	Yes	Yes	F	12
Yes	Yes	No	Yes	F	12

Table 9 Assessment Results

There is missing values in gender attribute based on the sample of the data set. It is believed that there are some students forgot to fill up the information appropriately. Thus, analysis of the data by using Weka 3.6.9 would able to replace the missing values and getting students' perception about the prototype as well. It is necessary to analyze the data precisely as to evaluate whether the interface design already meet the user requirements as listed above.

4.5.2.1 Exploratory Analysis on the Results

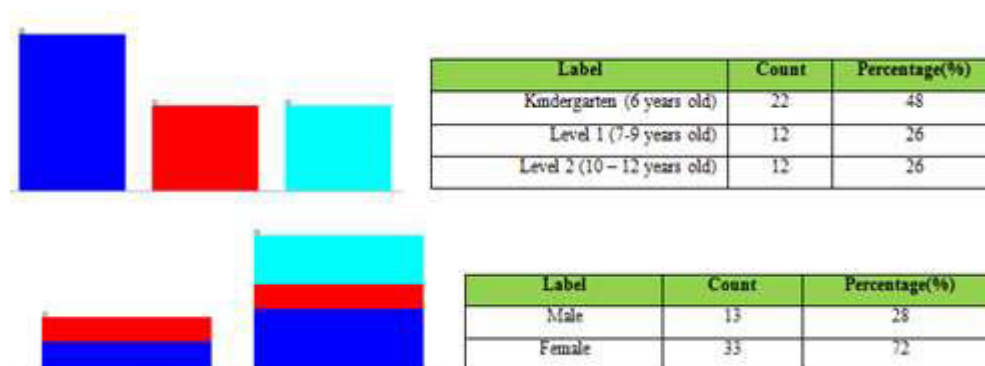


Figure 6 Demographic Factors

Testing activity was conducted in two sessions. Figure 8 shows that about 48% of the students participated in morning session. On the other hand, about 52% of them participated in evening session. Additionally, 28% and 72% of the 46 students are males and females.

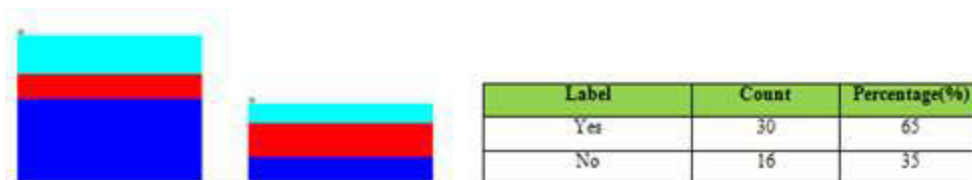


Figure 7 Usability Assessment

Figure 9 shows that about 65% of them agreed the website could help them to remember more effectively of each *doa*'. It is believed this website would give benefit to them by enhancing their learning process as to enrich their knowledge about *doa*'. However, about 35% of them does not agreed the usability element of the website. They said the content is still not sufficient for to them to learn about *doa*'. In addition, they suggested to add more *doa*' to be inserted in the website.



Figure 8 Visual Narrative Assessment

Figure 10 shows that about 78% of the students have enjoyed watching the videos supplemented within the website. According to them, the songs are quite interesting and easy to follow. They also stated the songs and audio have be heard clearly.



Figure 9 Instructional Design Assessment

Figure 11 shows that about 98% of the students agreed the way of the presentation is easy to understand. Thus, it shows that the instructional design of the website has meet the expectation of the children.

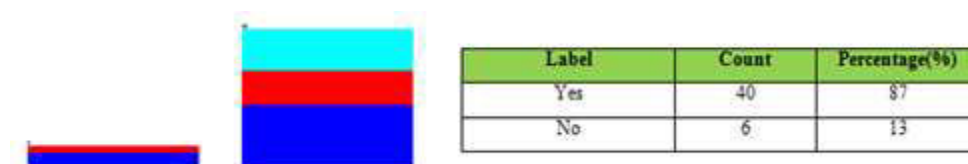


Figure 10 HCI Assessment

Figure 12 shows that about 87% of the students said they like with the design of the prototype. It shows that the 'Eight Principles of User Interface Design' has helped a lot in designing the layout of the interface. The selection of each button with different background colors would determine the different group of similar functions. The reason is to show the effective visual cue for the users. Besides that, the information is organized into the small sections as to enrich the knowledge to be more meaningful. By doing this, it would be easier for these children to learn. This is because they does not need to read each individual paragraph but can just browse the content more easily.

4.6 Second- Phase of Testing

The second-phase of testing was conducted on 23rd November 2013. Six people were selected randomly during the testing activity. The main purpose of the activity is to obtain feedbacks and responses from the secondary-users primarily parents and teachers. Since that, the website is designed to have both parents and teachers as well as children in order to learn about *doa*' and Islamic values and practices, thus it is necessary to obtain responses from them as well.

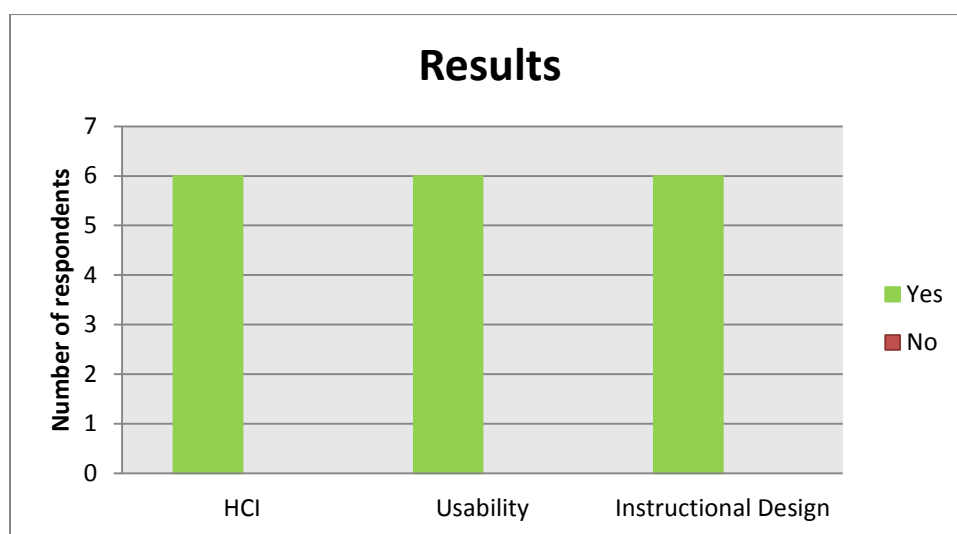


Figure 11 Results from Second-Phase Testing

Based on Figure 11, it shows that all the respondents agreed the website able to assist them to teach their children to learn about *doa*' more effectively. The elements of interactivity features such as video, audio, pictures, and text embedded within the website have met the objectives of instructional design. They also said that the teachers should use the website as a platform to teach their students to learn about *doa*' in class. This is because they believed the students would find it is an interesting way to learn about *doa*' in school instead of just reading and listening to the lectures.

4.7 Third- Phase of Testing

The third-phase testing was conducted with Muslim children ranging from 6 to 12 years old on 1st December 2013 in V3 Café, Universiti Teknologi PETRONAS. The main purpose is to ensure the implementation of the website meets the users' expectations and satisfaction. Five children were selected randomly during the testing activity. Below are the results.



Figure 12 Third-Phase Testing

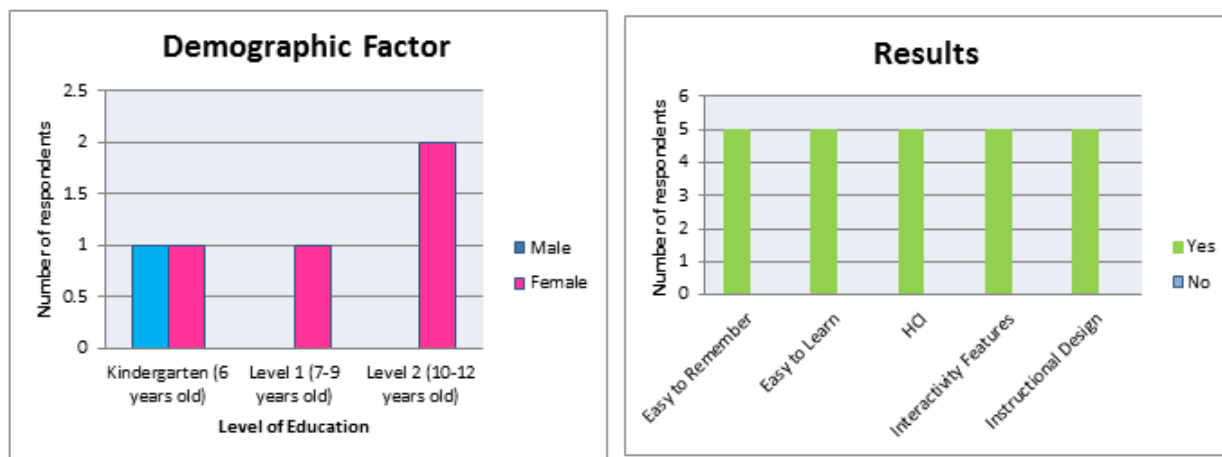


Figure 13 Results from Third-Phase of Testing

Based on the Figure 11, all the respondents agreed all the elements implemented within the website are meet their expectation as well as satisfaction. They believed they would able to learn *doa* through the website more easily and has the ability to assist them to memorize the *doa* as well. They also said the elements of video and audio embedded within the website giving them an opportunity to learn the *doa* more interactively instead of just reading.

4.8 Doa' Web Interface

4.8.1 Main Page



Figure 14 Main Page

The figure above shows the main page of the website. Since that it is a bilingual website, therefore there is an option for the users to learn about *doa'* in English or Malay version. All the 'square' buttons show the flow of learning process for the users would possess through this website starting from tutorial till activity for assessment.

4.8.2 Tutorial Page

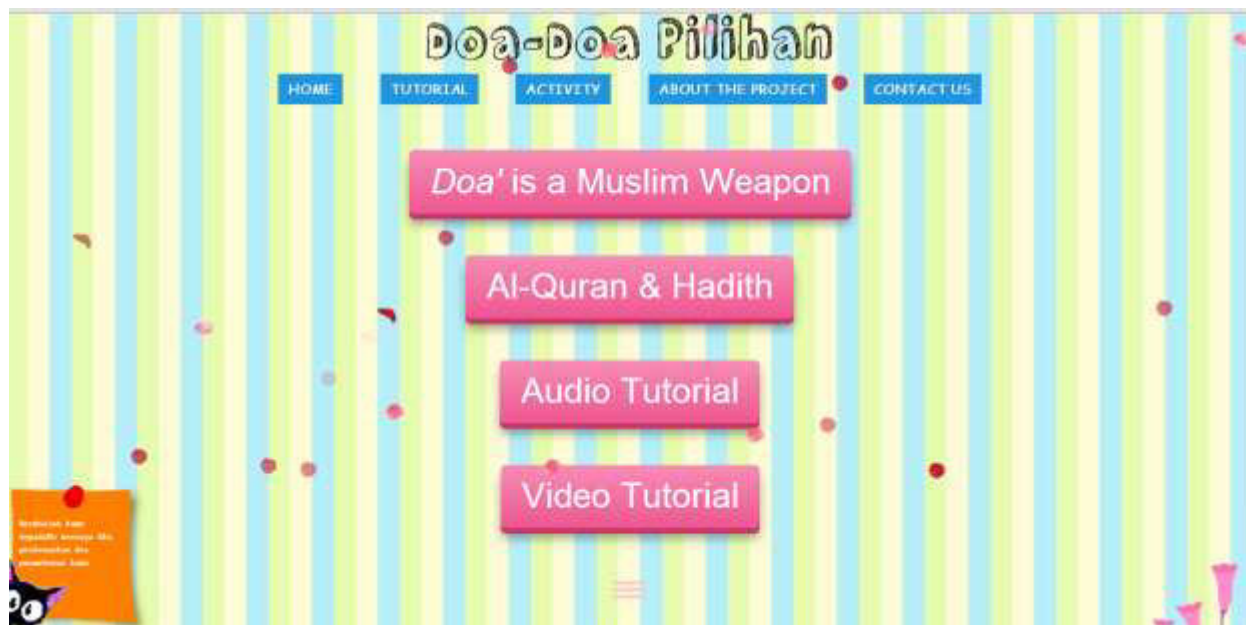


Figure 15 Tutorial Page

The figures above show the tutorial page. After the users click on menu button, with pink button below, a new section would be displayed. This section would assist the children to learn more on the concept about basic of *doa'* in daily life. The children would able to learn on how to pronounce, memorize and understand the meaning of each *doa'* via both audio and video tutorials.

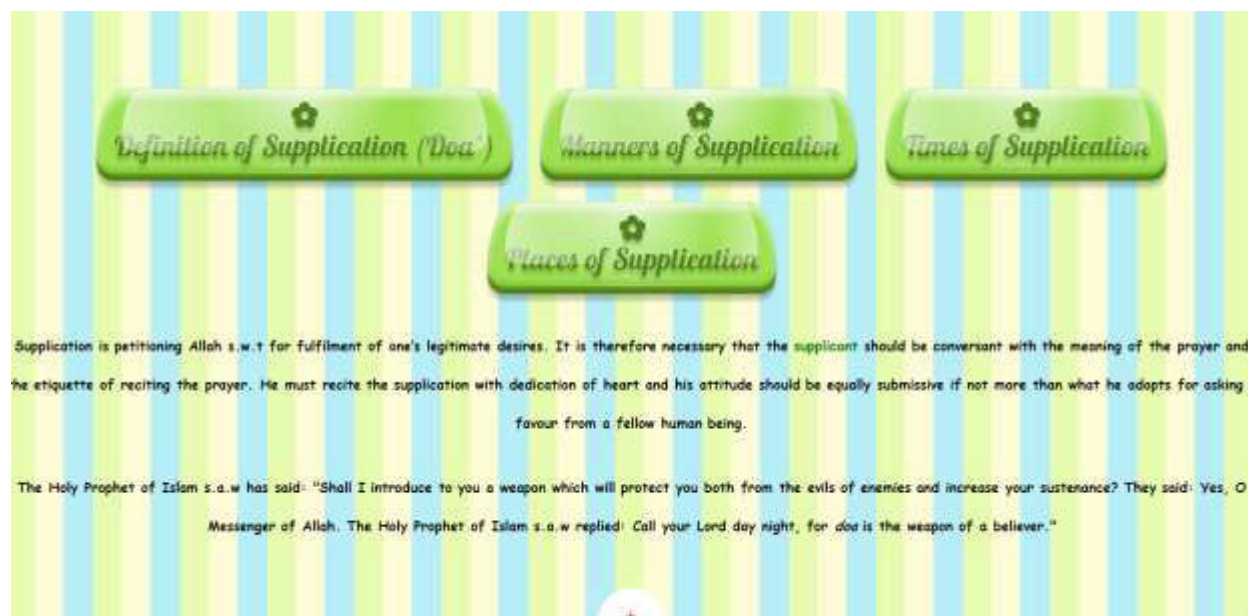


Figure 16 About *Doa*'



Figure 17 Explanation About *Doa*' via Video



Figure 18 Button 'Go to Next Section'



Figure 19 About Al-Quran & Hadith

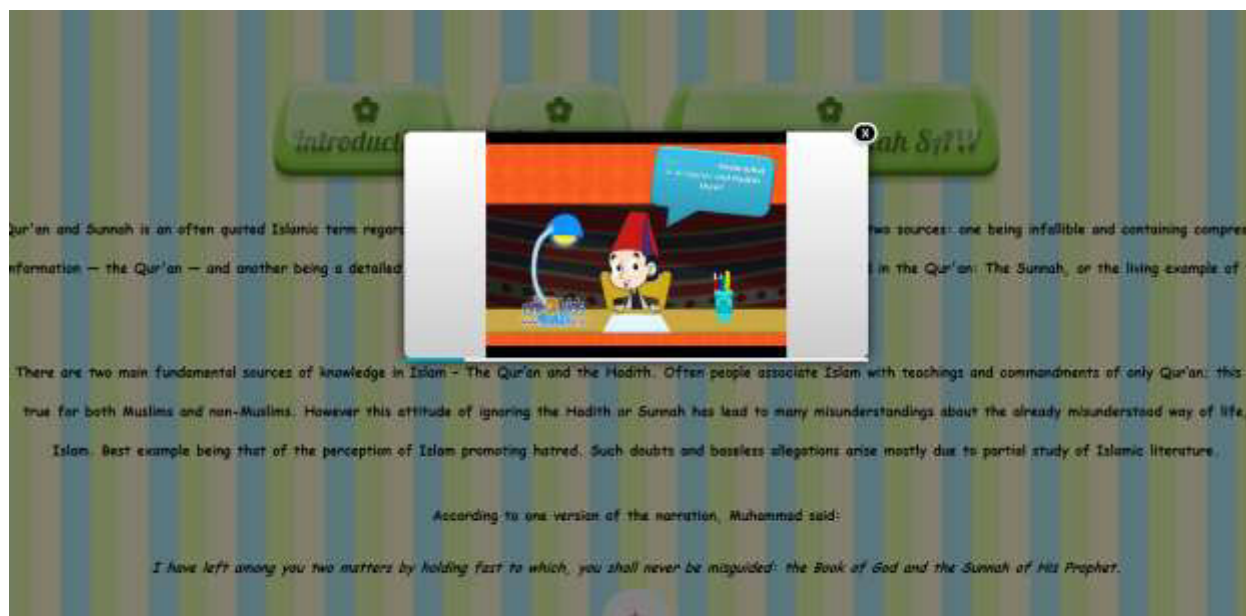


Figure 20 Explanation About Al-Quran & Hadith via Video

The figures above show the page on how the users would learn the basic concepts about *doa* as well as Al-Quran and Hadith as well. . Since that, every children have their own learning style that would be different from others, therefore elements of audio and video are fully utilized during implementing the website. Therefore, if the children have the difficulty to learn all the concepts through textual form, they could learn about them via watching the video by clicking the green button.

4.8.3 Audio Tutorial Page



Figure 21 List of Doa' From Al-Quran



Figure 22 List of Doa' from Hadith

The figures above show the lists of *doa'* according to Al-Quran and Hadith.



Figure 23 Audio Tutorial

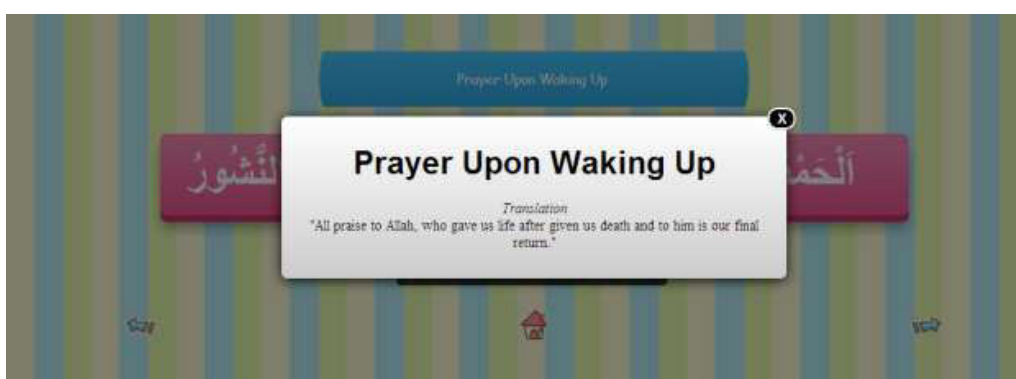


Figure 24 Audio Tutorial with Translation

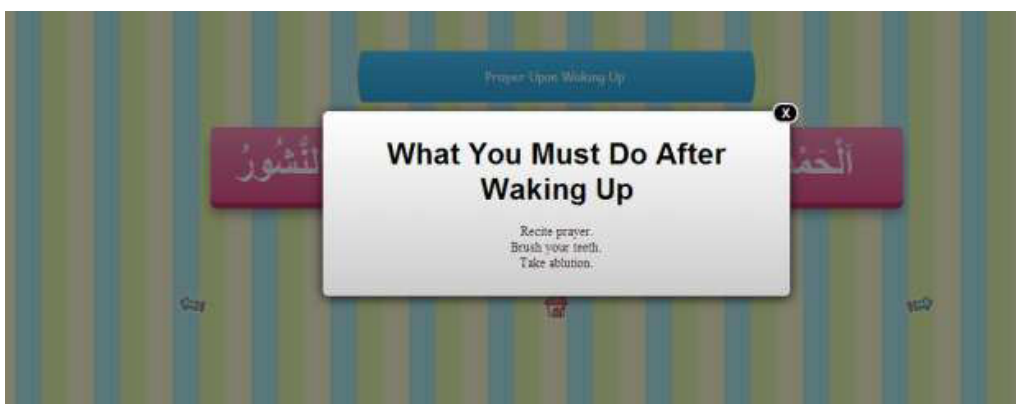


Figure 25 Audio Tutorial with Manners (Adab)

The figures above show how the audio tutorial is functioning. If the users clicks on the blue button, a pop-up message would appear as to guide the children on how they should act for an action in daily life. On the other hand, another pop-up message would display if the users click on the pink button as to represent the translation of each *doa*’.

4.8.4 Video Tutorial

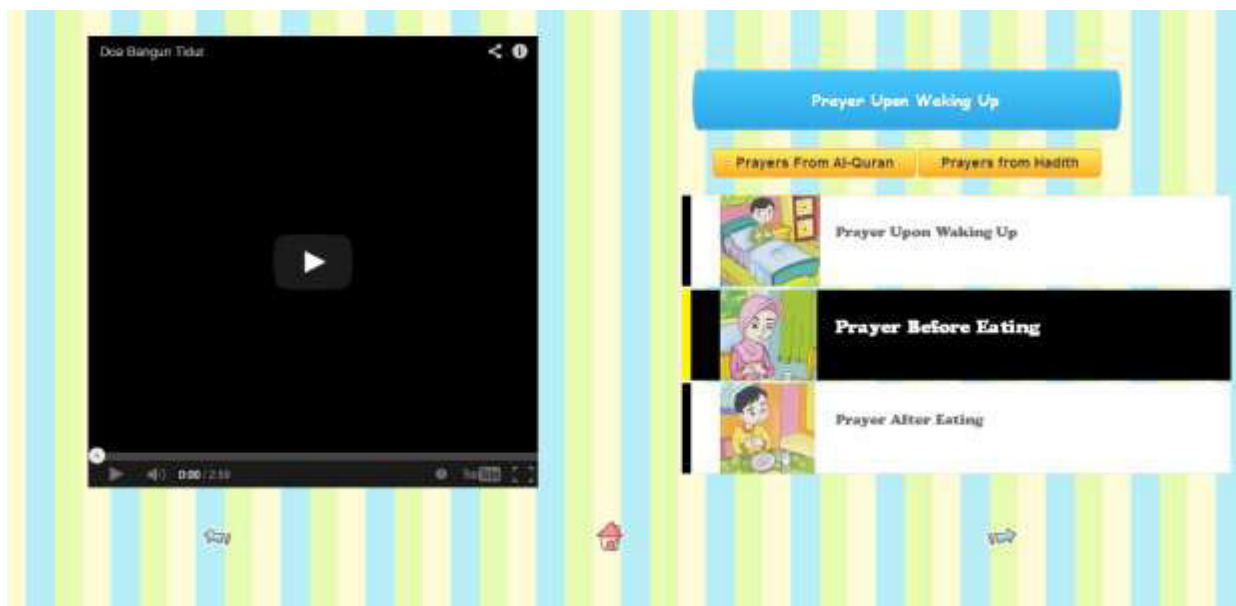


Figure 26 Video Tutorial

The figure above shows the page for video tutorial. The list of *doa* is organized according to Al-Quran and Hadith. The arrangement of *doa* follows the flow of a Muslim's daily activities.

4.8.5 Activity Page



Figure 27 Activity



Figure 28 Description of the Quiz



Figure 29 Example of the Question

The figures above show pages for activity section (game). There are three categories that the children could possess in order to test on their understanding and memorization level about *doa*'. They are:

- ***Match doa' and translation***

This activity is carried out as to ensure the children have memorized the meaning of each *doa*'.

- ***Memorize doa'***

This activity is carried out as to assess memorization skill of each children about each *doa*'.

- ***Performing doa'***

This activity is carried out to evaluate understanding level for each children on how to perform *doa*' in proper manner.

Each quiz contains five questions in which they have to answer all the questions within 30 minutes. The passing score has been set to 80% in order for the children could assess their performance for both understanding and memorization level about *doa*'. If the children failed to meet the minimum score, they have to do the quiz again.

4.9 Doa-Doa Pilihan



The users could view the website by key in the link given above. Therefore, the children would able learn *doa* anytime and anywhere as long as there is Internet access. For the better performance in term of display and functionality, it is highly recommended to open the website by using Google Chrome browser.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

The main objective of this project is to develop a website to educate young Muslim children on the practice of daily *doa*'. Additionally, a survey has been carried out among 50 respondents and the majority of them are parents and teacher. The aim is to get their opinions in order to identify whether the web-based learning is feasible to be implemented and reliable to be used for the children. Based on the conducted survey, about 54% of respondents that are basically parents and teachers disagreed that teaching about Islam in school are efficient and effective way to be utilized. Therefore, it is believed there should be an alternative method can be used in order to increase their complete understanding about Islam. Hence, about 78% of the respondents agreed that learning about Islam via online is a practical way to be implemented in local market. The usability and interactivity features are the core elements that are going to be focused on. One of the key of interactivity features that is going to be focused is visual narrative. This is because nowadays, people tend to have interest on something that is related to graphic. In the other words, the power of image and narrative enables to allow a great deal of variety in methodology and presentation. However, there is still no existing websites that are offering *doa*' as part of teaching module in interactive way based on researches made recently. Therefore, an interview with the experts from Islamic and Multimedia fields are also have been conducted with the intention of getting the needs and requirements before designing the interface so that it could meet the users' expectations after development process. It can be concluded that it is a great opportunity to develop an Islamic Education Web-based that is focusing on *doa*' as to promote the whole Islamic of Life for Muslim children.

Recommendations

- To include more *doa*' from Al-Quran and Hadith
- To enhance learning activities according to level of difficulty

Games have been created into three categories in which to test their level of understanding and memorization skills. However, these games still not being to advance for them to assess their level of both skills.



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APPENDIX

FATIN FARHANAH BINTI AHMAD FAIZUL
A/l's Blok E-6-5, PPR Seri Semarak, Jalan Rejang, 50000, K.Lumpur

30 hb. September, 2013

JABATAN PENDIDIKAN WILAYAH PERSEKUTUAN
Jalan Maktab, Kampung Datok Keramat,
Kuala Lumpur,
Wilayah Persekutuan Kuala Lumpur.



Tuan/Puan,

PERMOHONAN KEBENARAN UNTUK BUAT UJIAN FASA PERTAMA PROJEK TAHUN AKHIR

Berhubung perkara di atas, saya, Fatin Farhanah binti Ahmad Faizul, pelajar tahun akhir Universiti Teknologi PETRONAS [UTP, Tronoh, Perak Darul Ridzuan] ingin memohon kebenaran pihak tuan/ puan untuk membuat ujian fasa pertama bagi projek tahun akhir saya.

2. Tujuan saya untuk membuat ujian pertama adalah untuk mendapatkan maklum balas daripada para pelajar yang merangkumi umur daripada lima (5) hingga dua belas (12) tahun, mengenal laman web kami yang khususnya menekankan mengenai doa-doa pilihan yang terdapat dalam Al-Quran dan Hadis. Butir-butirnya adalah seperti yang berikut:

Tarikh : 4 Oktober 2013
Tempat : SK Padang Tembak (1)
Jalan Semarak, 54100 Kuala Lumpur.

Bilangan murid yang diperlukan:

- a. Sesi Pagi : 25 orang (Murid Tadika)
- b. Sesi Petang : 25 orang (Murid SKPT 1)

Kerjasama daripada pihak tuan/ puan kami dahului dengan ucapan terima kasih.

Sekian, terima kasih.

Yang benar,

Fatin
[FATIN FARHANAH BINTI AHMAD FAIZUL]
Pelajar Tahun Akhir,
Universiti Teknologi PETRONAS
Bandar Seri Iskandar,
31750, Tronoh, Perak / HP: 014-9125325

[Signature]
* Diketahui
KHANZULHIL EMBELION
PKG KERAMAT WPKL
1/10/2013

Salinan:

- Guru Besar, Sekolah Kebangsaan Padang Tembak (1), Oligu Fuid
- Pengerusi, PIBG SKPT (1)

DOA-DOA Pilihan

'Islamic Education Web-based for Muslim Kids'

USER ACCEPTANCE TESTING PHASE 1

Objective: To gather feedback from the primary user, Muslim Kids ranging from 5-12 years old.

Name :

Age :

Gender: Male/ Female

a. List daily prayers that are usually practiced in kindergarten or at home:

b. Do you already memorize all of them?



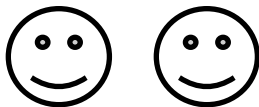
Part 1 Human Computer Interaction- Interface Design

1. Do you like with the design?



Part 2 Instructional Design of the Website

2. Is it the way of the presentation of the content is easy to understand?



Part 3 Usability Element Implemented in the Website

3. Is it possible you can memorize each daily prayer?



Part 4 Interactivity Feature - Visual Narrative

4. Do you enjoy watching the video?



5. Can you hear clearly the audio/song and video?



6. Comments:



DOA-DOA Pilihan

'Islamic Education Web-based for Muslim Kids'

USER ACCEPTANCE TESTING PHASE 2

Objective: To gather feedback from the secondary users, parents & teachers perspectives

Name :

Age :

Gender: Male/ Female

Status: Single/ Married/ Divorce

Part 1 Human Computer Interaction- Interface Design

1. Is it the design meet the users' expectations? **Yes/ No**

Part 2 Instructional Design of the Website

2. Is it the way of the presentation of the content is easy to understand?

Yes/ No

Part 3 Usability Element Implemented in the Website

3. Is it possible the children able to memorize each daily prayer? **Yes/ No**
4. Is there possible for these children easy to learn *doa'* through this website?
Yes/ No
5. Is it interactive features meet your expectation? **Yes/ No**
6. Comments: