



Visual Interactive Islamic Learning System for Children

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ABSTRACT

Research shows that approximately 65% of the population is visual learners because the brain processes visual information 60,000 faster than text. Moreover 90% of information that comes to the brain is visual and 40% of all nerve fibers connected to the brain are linked to the retina. Thus visual aids in the classroom improve learning by up to 400 percent. Contrary to the common way of teaching in schools nowadays that involves using text books, verbal explanation and writings at whiteboard for both western and Islamic teaching. This paper presents an approach that will be utilize in order to capture children attention towards understanding Islamic teaching easily and to give teachers more flexibilities in teaching Islam. Thus, an interactive web base system is designed to offers basic knowledge of Islamic concepts that include: Iqra', daily duaahs, steps in performing both ablution and salah, 3D presentation of the stories of the prophet, Islamic songs, Islamic videos and games.

Keywords: Visual learning, Islamic teaching, Children understanding.

1. INTRODUCTION

There is nothing wrong with the classical or traditional method of teaching compared to the modern way of teaching. In fact some teachers nowadays still prefer the traditional way of teaching and learning. Considering both the traditional and modern teaching methodology, visual learning aid tends aids improve learning by up to 400 percent and students who are twice exceptional are often visual learners (Statistics on Visual Learners (2012). The involvement of multimedia in teaching helps and supports both teaching and learning. This will eventually saves time and improves collaborative work, as well as the quality of teaching and understanding.

In contemplation of enhancing the Islamic subjects' teachings in school, the utilization of ICT technologies are required with the full support from everyone especially the teachers and schools. Students also need to benefit the opportunities that have been given to facilitate them in order to maximize their performance. Components of ICT that are mostly used in children's teaching are the audio visual attributes of multimedia and websites. For instance, basic Spanish vocabulary and language is popularized by an animation character, "Dora the Explorer". It has been distributed worldwide and produced in different languages. It

facilitates the children to experience new vocabularies and also learning of its meaning in Spanish through pictures and use of voice repetition. However, Dora the Explorer is not applied to Islamic teaching such a system will assist the activity of memorizing phrases, short dua's and learning Arabic letters. This would support the idea of Jusoh and Jusoff (2009) which is to motivate children learning using multimedia.

In addition, Muhammad (2010) has described those early ideas of Islamic scholars for Islamic education can be transformed through interactive means such as Islamic videos and games. However, it is important that the essence of Tawhidic paradigm remains regardless the pleasure and entertainment that can be experienced out of playing the games and watching those videos. Transformation of World Wide Web has impacted the society as a whole. In order to keep pace with the fast changing setting, Islamic teaching should utilized the advantage of this tool to deliver the message of Islam. Tamuri, et al., (2010) explained in their study that if the Islamic websites contents are align with Islamic education subjects taught at school, it can be useful for learning and teaching processes. Moreover, it benefits not only the children, but the society and Internet users as a whole.

It is a lot less time consuming to comprehend when in visual scene than when reading a book. When reading a book you have to keep stopping and starting where you left off. However, In a visual scene you can see exactly what is going on whereas in a book you really have to use your imagination. That is why this paper is presenting an interactive web base system is designed to offers basic knowledge of Islamic concepts that include: Iqra', daily dua's, steps in performing both ablution and salah, 3D presentation of the stories of the prophet, Islamic songs, Islamic videos and games.

2. RELATED WORK

Currently in the Internet there are various websites that offer a platform to learn online i.e. E-learning and other Learning Management System (LMS). Some of the website is a portal that the users need to buy the system from the vendor such as University Portal or for a company but there are many other websites which are free to use, examples; Islamicplayground.com, muslimkidsville.com, and playkidsgames.com. These can be seen as tools and resources that can be use for dissemination of knowledge (Blurton, 1999). Rapid development of technologies has give impacts in the global economy and the human daily life including education. Instead of using traditional method in class, ICT can be used as medium of teaching thus the learning process will more enjoyable. It becomes the important tools to educate people especially to the young children. This can be applied in Islamic education to help the children to learn about basic concept of Islam.

Abulatifeh R.A in his article concludes that the use of Internet to learn Islamic value has a positive impact on student's achievements (2011). Jusoh and Jusoff (2009) found that by having a mixed of multimedia tools in teaching and learning process have an impact to change the student's negative mindset towards a subject teaching by the teachers when they feel motivated to participate in classroom discussion. As been mentioned by Jusoh and Jusoff (2009) stated: If multimedia is able to transform Islamic studies becomes an interesting subject, it also able to transform other dry and plain subject become thrilling.

Tamuri et al., (2010) in their study to examine the application of Islamic Web Sites in process or learning and teaching Islamic education focus on six main aspects of the websites for teaching and learning process i.e. application of multimedia, cognitive development, elements of constructivism and flexibility, self-learning and appropriateness of content. The study found that most of the websites of the Islamic websites which were consistent with the content of Islamic education subjects at Secondary school level were useful for the learning and teaching process and they could use the websites for various purposes. The focus is not only to the students but can benefit people around the world. Muhammad (2010) studies reveal that Information technology makes easy for Muslim to get Islamic education from homes through virtual classes. Islamic games and video are available for the children to learn about Islam. There many websites that attempts to implements visual learning, among which are; *Islamicplayground* websites provide platform for children to learn about Islam where it provide various types of games such as : Arabic alphabet/Puzzle, Islamic Crossword Puzzle, Islamic Jigsaw Puzzle, Islamic Quiz Time, Miscellaneous Islamic Games, Islamic Colouring Activities, Printable Activities and Islamic Wallpapers. *Muslimkidsville*, website presents three main issues as follows: Play and Learn, which involves, Jigsaw Puzzle, Save the Flower, What do we say, Attributes to Allah, My Arabic Alphabets and Pillars of Islam. Others include Songs and Stories, Muslim Scout Adventures. This website looks simple but it attractive with graph, picture, and animation and sound. It is user friendly and easy to operate. *Playkidsgames* website is a place where it provides games for children to learn Math, Alphabet, Memory, Vocabulary, Geography, Art & Music, and Puzzles. *Do You Know?The prophet story (Book)* is the website that provides books compilation of the story of the Prophets. It started with the story of the creation of Allah and then continues with the story of the Prophets. The way it tells the story is with the colorful picture related to the particular Prophet time and some Quranic versus. Children can be attractive with the book

Based on the above review of literature, we can infer that the use of ICT have a potential in the development and enhancement in Islamic based education. Nevertheless, the promise of better future not only lies in the technology, but in people's capability to use, understand and manage the technology (Dugger and Satcwell, 1996). Thus this is the opportunity to understand the requirement and responds from the user with the current system exist before designing the new system that are much better and can benefit people as well the Islamic society. The system review is crucial for the planning of the project in order to give a clear sight and the vision that is necessary in the future for the phase of developing and implementing the project.

3. SYSTEM DEVELOPMENT

The system is a web based where its development is meant to provide for teaching and learning. The main components of the system are shown in Figure 1.

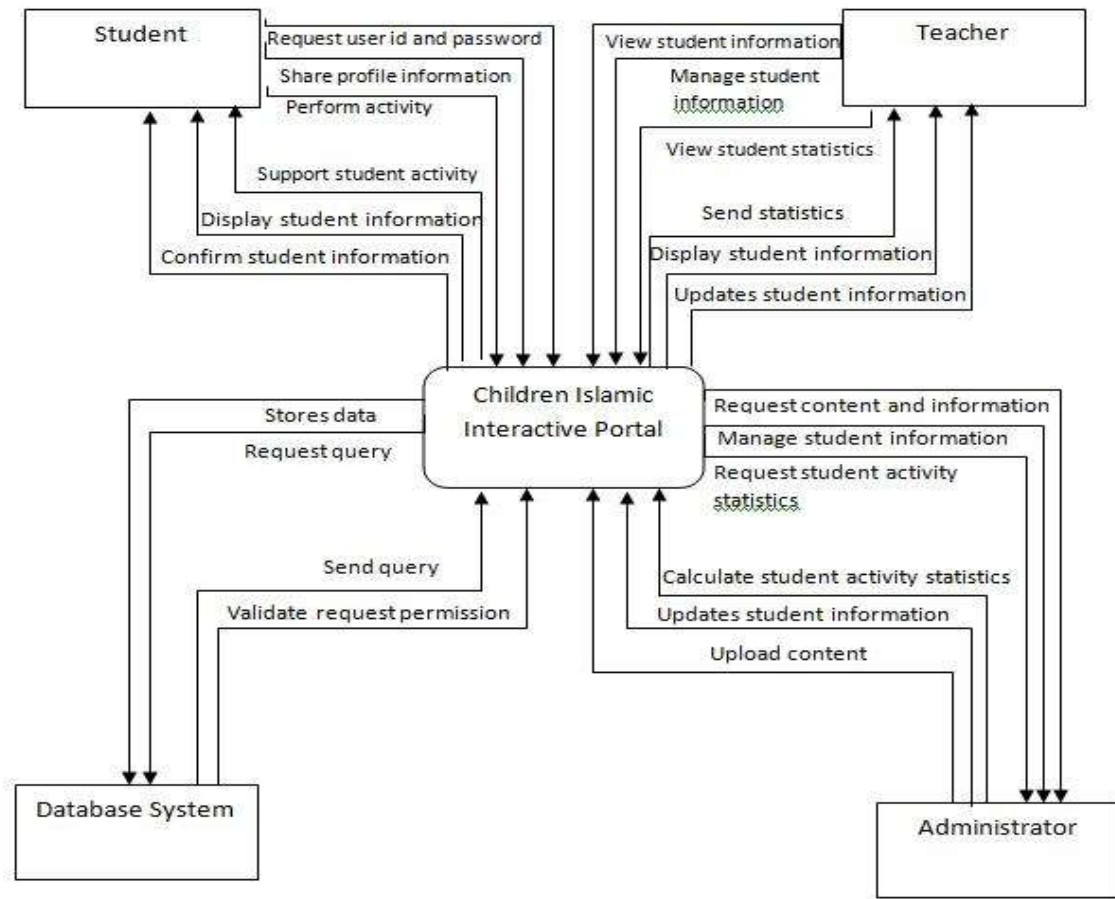


Figure 1: The system Context Diagram

The student as part of the system context is design in order to make students enter his/her name and password. This means that there should be a request for those credential from the system, as such not every will be allow to work with the system but only the authorized users. This information is stored for each student in a profile which may be shared. There is also provision of performing activities. The teacher as part of the component of the system, can view student's information, manage that information and view the student statistic. These services for both students and teacher are managed by the administrator who controls the entire system. The system response in kind to the entire request made by students and teacher respectively. This response comes from the central database. As a result the system can be described with four main components as follows: the student entity, the teacher entity, the administrator and the database.

4. SYSTEM IMPLEMENTATION

The system works in step-by-step. Figure 2 shows the main page of the Children Islamic Interactive Learning Portal where it is the page that will be displayed once user or non-user comes to the website. The page explains briefly about the system. There are two parts of registration which are for the administrator and the users that consist of student and teacher. Furthermore, in the homepage, it can further link to Sign up page; follow by contact us which display contact information of the system.



Figure 2: Main page of Children Islamic Interactive Learning Portal System

The Home Page view and the administrator link to login with the red oval shape sign. The administrator needs to fill in their ID number and password that have been given earlier when they have been responsible to manage the portal system. The previous page directs to the administrator successfully login page. There are several functions that can be exploiting by the administrator. The grand access for the admin to manipulate the data for the administrator can update their information in this section. The function that the administrator can perform to the user. For this portal, the users consist of teachers and students. As the administrator, they can view all the users' information, edit the teachers and students information as well the access to delete. The function that the administrator can view is the log of every user access to which page, time and date. The data log can also be deleted. The login page is for the teacher and the direct page if the teacher successfully login to the portal. The function that the authorized teacher can perform is to view all of the student information as well to update the data. Furthermore, teacher also has the access to upload learning material for the student.



Successfully Login Student Feature



Learn Time Feature (Home)



Learn Time Feature (Daily Du'a)



Playtime Feature (Jigsaw Puzzle)



Playtime Feature (Memory Game)



Playtime Feature (Quiz)

Figure 3: System Features

The statistic for the student activity is for the teacher to monitor and evaluate the students whether they using the portal for learning or playing. Simple statistic is produce by the counter in each of the Learn and Play page. The login page is for the student and the direct page if the student successfully login to the portal. The function authorized student can perform in the portal. There are two main features of the portal which are the Learning part and playing part. For the Learning part, there exist four features such as for the student to download the Learning materials, Prophet Stories, Moral Stories and Daily Du'a. For this part, we as the developers, intentionally create each of this section to be interactive and creative to ensure the student will interested to use the portal.

The second part for the student section is the Playtime part. In this section, we manage to produce three different simple types of games for this portal such as Jigsaw Puzzle game, Memory Game as and Quiz.

5. CONCLUSIONS

Islamic Interactive Learning Portal is a new system that is created to fulfill the current needs of Islamic learning platform for the young generation to learn the basic about Islam. The purpose of this system is to managing the learning process as well to measure the productivity of the children. The system also intentionally created to suit the level of knowledge for children where it is interactive and the interface is understandable. The limitation and constraint that the researchers face are during the middle stages of creating each function for the system where sometimes to finish one function it may takes few days. Therefore, time constraint is the biggest constraint for the researchers because of the dateline to finish the project. However, this can be overcome by dividing the work equally between the researchers. For future enhancement, perhaps this system can be extending to more functions and more interactive modules can be included such as music, video etc. In conclusion, this Islamic Interactive Learning Portal is a medium for school children to learn basic things about Islam in an enjoyable and interactive way. The researchers hope that by developing this system, we can enhance the quality of the Muslim society to produce the great leader for the future.

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