A PRELIMINARY STUDY ON MOBILE QURANIC MEMORIZATION FOR REMOTE EDUCATION LEARNING USING RFID TECHNOLOGY: KUIS AS A STUDY CASE

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ABSTRACT

Traditionally, Quran memorized using a book called mushaf. Tahfiz Al Quran and Al Qiraat course in Kolej Universiti Islam Antarabangsa Selangor learned towards the spiritual aspects of the Quran in depth which develop and exposed the student with a memorizing skill that will deliver a good impact to their studies and career. It has been proved that an efficient learning process was through face to face learning known as Talaqqi method and word of mouth with lip-reading known as Musyafahah method. With the improvement of smart phones technology and the availability of networking technology, many applications on Quran are being designed for mobile devices to make this learning process continually easier and faster than before. This paper presents proposed design architecture of mobile-quranic memorization for remote education learning integrated with RFID technology to simplify the problem arises in conducting memorization skill subjects.

Field of Research: RFID, Mobile-RFID reader, WiFi, memorization.

1.0 INTRODUCTION

Kolej Universiti Islam Antarabangsa Selangor (KUIS) education landscape had been planned and implemented well in order to produce an excellent student with a spiritual knowledge and skillful in the field chosen. Between all the programs offered, there was a program that learned towards the spiritual aspects of the Quran in depth which was Tahfiz Al Quran and Al Qiraat course. The students will undergo theoretical and practical learning of Qiraat including Tarannum and Tafser Al Quran. Instead of offering a diploma and degree level of Tahfiz Al Quran and Al Qiraat course, the first year student from the Faculty of Islamic Studies, Business Administration, Information Science and Technology and Linguistics required to register Hafazan Al-Quran and tajweed as a compulsory subject. This will develop and exposed the student with a memorizing skill that might deliver a good impact to their studies and career soon.

There are many institutional Tahfiz Al Quran established around the world including Malaysia. The institutional Tahfiz Al Quran across the country not only serves to produce the huffaz only, but its existence was seen as a catalyst towards the creation of the professional public administrators where his soul with the Quran. Furthermore, the institutional also create memorization and recitation of the Quran which is systematic and efficient (Abdul Hafiz & Norhanan, 2010).
2.0 RESEARCH METHODOLOGY

There are various techniques and systems used in institutions of memorizing the Quran including KUIS to ensure the implementation of the memorization process is methodical and systematic. This study chooses a qualitative research design because it fits the purpose of the study that explores the issues and methods of memorizing the Quran that has not yet fully develop. Research on technology is expected to help a development of memorizing Al-Quran techniques to be simple, fast and effective in producing quality and professional huffaz. Institutions tahfiz Quran makes memorizing system in variety of techniques and methods with effective and systematic in helping to facilitate the process of memorizing the Quran properly (Azmil Hashim, 2013).

3.0 LITERARY STUDY

This research presented the two main frame method of memorizing the Quran using a traditional memorization techniques and modern memorization techniques through applying the mobile application system.

3.1 TRADITIONAL MEMORIZATION TECHNIQUES

Al Ghazali’s framework of the curriculum clearly represents his ideals of placing religion in the process of teaching and learning. He preached that children should start attending school upon reaching the age of 6 years. At this stage, their education should concentrate on Quranic studies such as reading, memorizing the Quran and Hadiths as well as developing their literary skills. (Ariffin, 2012). The best way to learn and memorize Al-Quran was through Talaqqi and Musyafahah methods. Talaqqi implemented through face to face or deal with teachers. Musyafahah mean that the word of mouth with lip-reading teacher watching to get the correct pronunciation of tajweed and makhraj.

Traditionally, Qur’an memorized using a book called mushaf. The duration of study depend on the academic ability of the student, what is important is the memorization of the Quran which is in three stages, these are learning the Quran by heart (Tilawa), memorising (Hafizi) and perfecting the ability to write the whole Quran with no error either on a slate or in a paper (Darasi)(Osman, 2013; Taiwo, 2014). Learning is done manually as the students have to sit face to face and the learner recites and the experts points out and corrects the mistakes (Muhammad & Qayyum, 2012). Memorize the verses of the Quran requires patience and discipline to achieve the target number of verses to be memorized at one time. Hafiz must prepare itself to face any kind of trouble when it started to memorize and review onwards in memorizing which was obtained. Indeed, the Quran memorization is too easy to disappear from the huffaz retention except for those who really ensure the preservation (Abdullah & Rahman, 2010). The process of repetition in the verses memorized the Quran were performed using the five daily prayers and daily remembrance to ensure that the verses of the Quran preserved.

Memorizing technique stages starting from individual memorization and followed by Tasmik with peers and the lecturer. Tasmik is one of the important processes in memorizing the Al-Quran to be passed by each huffaz to ensure the memorization achieving perfection in terms of retention with good pronunciation of tajweed and makhraj. Different memory levels among students create difficulties in setting the tasmik timetable between peers and lecturers. Tasmik schedule depends on the availability of peers and lecturer times during classes are conducted and well-prepared by the Hafiz. It needs the student's responsibility to set an appointment between their peers and lecturer.
Apart from that, the lecturer will provide a performance memorization book to facilitate the process of grading students.

There are various memorization techniques studied by researchers in creating effective memorization. Turkish system (Abdul Hafiz & Norhanan, 2010) does not focus on any one principal for too long to avoid students getting bored because the memorized verses or pages different from day to day. The effectiveness of memorizing the Quran is evaluated through a short period of time, the student’s success in maintaining the quality as well as memorizing quality. According to Abdul Hafiz & Norhanan (2010) the existence of the testimony imtihan actually is seen as a method to enhance the quality of memorizing through this system.

Memorization and understanding as working together will produce higher quality consequences. The analysis showed that the distinction between understanding and memorizing is not easy to describe, with committing to memory and repetition learning of details both contributing to the production of knowledge object (Entwistle & Entwistle, 2003). The most important in learning Al Quran is how to make sure the knowledge valuable to apply for a real life. The key is memory retention. According to Benta & Cremene, (2004) increased student retention as a result of increased student motivation and understanding. Learning is based on a deep faith and passion for God. Involvements of permanent memorization quality are through understanding internalized and applied in everyday life.

The implementation of traditional process is not solving a problem that arises when the memorization skill depends for availability of students. For that reason, the usage of Mobile Quranic Memorization system is recommended to improve the traditional memorization Al Quran process in KUIS.

3.2 MODERN MEMORIZATION TECHNIQUES

With the creation of Information Technology, a large numbers of software and mobile application have been developed to make this learning process continually easier and faster than before. With the improvement of smart phones technology and the availability of Internet, many applications for Quran are being designed for mobile devices.

Although many application system developed can help learn the Quran and recitation improvements such as Quran Audio Recitation (QAR) (Muhammad & Qayyum, 2012), by detecting the mistakes made by user. With the availability of the tools for digitization (Muhammad, 2013), a variety of Qur’an related applications and software have been developed to cater the needs of online and offline users.

Tahfiz learning methods have a strong relationship with student achievement (Hashim, 2014). Therefore elements tahfiz learning needs to give a special consideration by all parties in the design of teaching and learning curriculum tahfiz (Azmil Hashim, 2013). This Mobile Quranic Memorization system supported a platform for different style of learning and techniques with integration of Talaqqi and Musyafahah method that make students an easy way to learn and memorize. It will integrate the basic method of Talaqqi and Musyafahah with the system to create the best way to memorize the Al-Quran. Some of the factors in learning that contribute to effective and efficient is an interactive learning system design (Baldwin & Sabry, 2003).

Based on R.Tesoriero (2008), they provides conceptual model on how RFID can ease the tracing
The proposed project allows students to memorize either individually or cooperation between their peers using mobile phone with flexible scheduling and systematically based on availability for each student and lecturer in the system. Mobile-RFID sensor will detect the RFID tag from the student card. The RFID reader will read the data from the student card and send to the database server. Once the students identified by the system, it gives a unique ID for each of the student. This unique ID will be scan by the whole student to see their availability to do tasmik each other. The tasmik was done using videoconferencing to make sure the memorization using the Talaqqi and Musyafahah method. The system will detect mistakes and give a report of memorization performance for each verse Al-Quran by student. This project will integrate the basic method memorization with the system to make sure the flow of memorization done effectively. It will give an alert and prompt response for the peers or lecturer if the system detects mistakes as registered in the database server. This project adopted Wi-Fi technologies to locate Wi-Fi enabled Mobile-RFID devices. Wi-Fi technologies used to identify the physical area covered by a specific Wireless Access Point (AP). RFID technologies are identified by the physical area covered by a specific Mobile RFID-reader while Mobile-RFID application sense to locate RFID tagged. We proposed the Mobile Quranic Memorization system architecture as shown in Figure 1.

![Figure 1: Mobile Quranic Memorization System Architecture](image)

Mobile Quranic Memorization system also created to localize the student unique ID using local-search technique and grid localization mechanism. This local-search technique will trace the
students and lecturer based on the list registered in database server. While grid localization mechanism (R. Tesoriero, J.A Gallud, M. Lozano, 2008; Rong – Jhang Liao, Pei-Lun Suei, Yung-Feng Lu, 2008) is used to trace the location of students registered in the system.

The main contributions of this proposed Mobile Quranic Memorization application system are:

- able to manage a number of students simultaneously.
- able to track and trace memorization performance of students.
- able to set date, time, location of Tasmik with peers and lecturer through face to face (Talaqqi) and word of mouth with lip-reading (Musyafahah) methods remotely using video conferencing.
- able to shorten all the work force with systematic networking scheduling.
- able to check and grading students easily.
- able to alert and prompt response student and lecturer.
- able to reduce human mistake.
- able to support green IT that reduce utilization of paper and (paperless).

This research work aims to create a platform of controlling and reduces the issue of monitoring and management in scheduling and easy communication in the memorization process. This system supports a range of framework information including location, time, date and user's performance to improve the memorization process in order to maintain their level of memorization and retention.

4.0 CONCLUSION AND FUTURE RECOMMENDATION

The issue of process design is very important. Having a good system application design can ensure that students and lecturer get better comfortable when all the process runs smoothly. Our proposed Mobile Quranic Memorization system is implemented in smart-phone that attached with an RFID reader. This project focuses on development of controlling and reduces the issue of scheduling and easy communication in the memorization process due to improved their level of memorization and retention of the Holy Quran. This system makes the memorizing process more systematic, easier and faster due to human mistakes. For the future research, further implementation need to be focus on to prove the effectiveness of this proposed research.

REFERENCES


