

The Readiness of Usage Mobile Learning (M-Learning) towards the Qur'an Learning in Islamic Studies Course among the Students in Unisza, Terengganu

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ABSTRACT

Islamic scholars created various methods in learning the Quran and *talaqqi musyafahah* was one of the methods. In Muslim community from then until now, this method is important in al quran's learning to facilitate the reading of Quran with tajweed. Even though varieties of modules and methods introduced, there are many weaknesses in Quran's reading among the Muslim community. Consequently, modern learning methods attract more student interest compared to traditional methods. Many efforts have been made to change the paradigm of learning the Koran towards modern technology. Therefore, this study aimed to identify the stage of the readiness of the use of m-Learning as the medium of learning Qur'an among the Islamic studies students in UniSZA, Terengganu. This research uses quantitative methods, using the questionnaire as the tool of the study. The instrument used in the questionnaire has been tested the validity and reliability and the content had been verified by a panel of reference expert. A pilot study has been conducted to determine the truthfulness and validity of the instrument. Alpha Cronbach level reliability value obtained for all questionnaires was high which (> 0.8). A total of 320 respondents consist of Islamic studies students in UniSZA, Terengganu were randomly chosen stratified. The data collected from the students were analysed descriptively using frequency, percentage, mean and standard deviation. Meanwhile, the inferential analysis used is motivated through the analysis of One-way Anova test. The study found out that the level of readiness of the usage of m-Learning in learning the Qur'an among respondents is high. Analysis result of One-Way Anova test also shows the willingness of students to use the m-Learning for the Quran's learning is not influenced by course study factor for each group of students. In conclusion, the usage of m-Learning technology is easier without bound by time and place as well as can be used as aid in teaching and learning processes. The results show that the implementation of m-Learning technology in the Quran's learning can attract students' interest in mastering the Quran's recitation as well as following latest learning concept. Next, this also can help in solving problems related to the weakness of the Quran's recitation in the society especially among the students of Islamic studies in Malaysia.

Keywords: M-Learning, Learning Methods, *Talaqqi Musyafahah*, Al Quran's Learning

INTRODUCTION

Generally, this study aimed to identify the readiness level of students to use m-Learning in Al Quran's learning. More specifically, this study tries to determine the readiness of the usage of m-Learning in Al Quran's learning. This study is done on Islamic studies students of University Sultan Zainal Abidin, Kuala Terengganu.

BACKGROUND OF THE STUDY

Various methods of Al Quran's learning were introduced from then until now by Islamic scholars to facilitate the reading of the Quran with tajweed among the Muslim community. In Islam, reading al-Quran right by monitoring each tajweed law with care and reading with appreciation to the Al Quran is obligated because Al Quran can create faith and morals of each individual (El-Muhammady, 1991; al-Majidi, 2000).

There are many methods in al Quran's learning for instance the *talaqqi* and *musyafahah* method or mouth-to-mouth (al-Qattan, 2000; al-Suyuti, 2008). *Talaqqi* and *musyafahah* method are very important in reading and learning Al Quran. Al Quran's learning first started during the first message by *Malaikat Jibril* to Rasulullah s.a.w. Based on the history, *Malaikat Jibril* a.s recites Al Quran to Rasulullah s.a.w by using *talaqqi* and *musyafahah* method. Later, this method was followed by the era of the companions, tabi'in and tabi ' tabi'in even by scholars qurra ' (Qur'an scholar) (al-Qattan, 1996; Dzulkifli & Abdul Ghani, 2013).

Consequently, Al Quran learning methods developed following the circulation of the times through the development of information and communication technology (Sidin & Mohamad, 2007). Technological advancement has given space to the use of mobile and wireless technologies in the world of education (Anderson, 2001; Boerner 2002). M-Learning's learning has developed overseas for example country like Europe and the United States (Shuib, 2009). Consequently, in Malaysia, the term for m-Learning usage first introduced in the general community especially in curriculum learning at the higher education (Siraj, 2004; Syed Yahya Tasir, 2008).

The invention of electronic technology in learning Al Quran has been introduced. According to Razaly et al. (2010), a Braille Elektronik application (eBraille) was introduced. This electronic technology has applications for all versions of the verses of the Holy Quran. In addition, e-Hafiz system was introduced to provide facilities in reading and memorizing the Al Quran verses, especially the Al-Quran *Hafiz* and *Hafizah* (Aslam et al., 2012). Both of these applications were introduced with the aim to facilitate and encourage Muslims to read the Qur'an verses. Based on the creation of this technology, it shows that there is already the usage of technology in learning knowledge of the Quran even though not fully.

There are still weaknesses in the Al Quran recitation among the Muslim community. This has been proven by the fact of Mohd Yusoff and Saidi Mohd (2010) and Sudin (2002). Their fact found out that part of the students at the religious schools either the secondary level or the

higher is currently the illiterates of the Al Quran. They also state that, majority of Muslim students in schools are weak in mastering the tajweed knowledge. Statement by Mohd. Hamid (2000), Nik Mohd Fuad (2004), Shamsudin (2004), Othman (2006), Ismail (2010), Dzulkifli and Abdul Ghani (2013) also Fadzil and Jaafar (2015) also support this statement. Therefore, a mechanism and review of the methods in Al Quran's learning should be built in order to improve the ability in Al Quran studies.

According to Fadzil and Jaafar (2011) as well as Mohd. Hani (2000), the level of awareness of Islamic students towards Al Quran's reading is at a moderate level. This is also supported by the statement of Ismail (2010:17). He did a research on teachers in the j-Qaf programme. The study's findings state that even though the teachers teach Al Qurans' subjects, not all of them have major in the Al Qur'an studies.

Nowadays, modern methods learning to attract more Muslims interest compared to traditional methods. This can be seen through the past statements about the Al Quran mastery among students are still moderate and weak even though using the methods *talaqqi* and *musyafahah* (Dzulkifli & Abdul Ghani, 2013). The question, is there a more effective modern methods as compared to traditional methods in Al Quran's learning?

Hence, there are a lot of efforts to change the paradigm of Al Quran's learning to modern technology methods such as e-Learning. Bahari (2008) and Razali (2003) state that currently, in learning Al Quran, there is a need for the usage of website and computer software. This is supported by (Norasikin et al., 2005; Nor Hasidah et al., 2010; Ibrahim, 2010). They also stated that the usage of electronic technology is more interactive than traditional methods and following the current developments of the Muslim community now.

University Sultan Zainal Abidin (UniSZA) is no exception in the implementation of e-Learning. In UniSZA, the e-Learning system is known as KeLip and it was introduced in 2006 by the usage of LMS (learning management system) platform. KeLip is one of the applications for e-Learning project in providing facilities to academic trainers and students of the University in teaching and learning process (Embi & Adun, 2010).

Until now, majority of Islamic studies students in higher learning institutions used smartphones (Mohd Nawawi & Hamzah, 2013). This is in line with the reports issued by the *Berita Harian* newspaper that reported the annual sales of smartphones in Malaysia reached the highest record in 2014, a total of 8.5 million units. According to this report, users in Malaysia already spends approximately RM 8.74 billion a year and it is expected to increase for the following year (*Berita Harian*, 2015). Hence, refers to the problems discussed, a study should be carried out. Therefore, this study is needed as an alternative to identify the readiness of Islamic studies students in using m-Learning in Al Quran's learning. M-Learning also has become the medium of teaching and learning processes at most educational institutions in all levels of education.

OBJECTIVE OF THE STUDY

Studies conducted should contain precise objectives for strong results. Based on the statement of the problem, the objective of this study was to analyse the readiness of m-Learning usage towards Al Quran's learning among Islamic studies students, in University Sultan Zainal Abidin, Kuala Terengganu. In particular, the objective of this study is divided into two objectives:

1. To identify the readiness of m-Learning technology usage for Qur'an's learning as a whole based on constructs among students of Islamic studies at UniSZA, Terengganu.
2. To examine whether there are significant differences in the readiness of the m-Learning usage in Al Quran's learning based on course studies among the Islamic studies students in UniSZA, Terengganu.

RESEARCH HYPOTHESIS

1. There is no significant difference between the readiness of the m-Learning usage in Al Quran's learning based on course studies among the Islamic studies students in UniSZA, Terengganu.

RESEARCH METHODOLOGY

A method of data collection is important in research. This method uses a descriptive survey method deductively through questionnaires as a method of data collection (Neuman, 2006). According to Abdul Ghaffar (1999), the questionnaire instrument is appropriate to use to assess concepts regarding attitudes, perceptions and a particular point of view. This study was conducted on Islamic studies students, session 2016/2017 in UniSZA, Terengganu. Stratified random sampling technique (not based on the ratio) was used in this study. Based on Table Sample Size Krejcie and Morgan (1970) and proposed by Gay and Airasian (2003), the number of samples needed is a total of 320 Islamic Studies students, Terengganu. Respondents are asked to provide response in the form of their perception towards the readiness of m-Learning usage towards Al Quran's learning among Islamic studies students, in University Sultan Zainal Abidin, Kuala Terengganu.

Set of questionnaire in this study involve the usage of Likert scale to assess the respondent agreement answers. According to Sekaran (2009) and Abdul Ghani (1999), the Likert scale is used to study the strength of the respondents in the stating agreement on their knowledge based on statement survey item. Data collected is analysed using ' Statistical Program for Social Sciences (SPSS) Version 20.0 for windows. Data analysis is the process of categorizing, simplifying, sorting and manipulating data to answer objective of the study (Rozmi Ismail, 2013). Analysing data using frequency, percentage, mean and standard deviation for identifying readiness of the m-Learning usage in Al Quran's learning for whole based on construct among the Islamic studies students in UniSZA, Terengganu. Next, the inferential analysis of One-Way Anova test was used to analyse the two mean or more. According to Noraini Idris (2010), One-Way Anova test was used to replace t-test that is not capable of analysing data that has more

than two groups involved. Next, for translating variables, researchers have used score mean and standard deviation in interpreting free variables as proposed by Oxford (1990) as in table 1.

Table 1: Score Mean Interpretation in the Independent and Dependent Variables

Mean Score	Interpretation
1.00 until 2.33	Low
2.34 until 3.67	Medium
3.68 until 5.00	High

Source: adaptation of Jamil Ahmad (2002), Abd Halim Ismail (2011)

Results for this survey have internal consistency reliability index that can be accepted. The actual reliability index for the whole item instrument was 0.859. Readiness constructs which is usefulness acquire the value of 0.903. Comfort constructs (ease of use) is 0.889. Meanwhile the willingness construct earned value of 0.731. This instrument reliability index is high and can be adopted to carry out the actual test (Sekaran, 2003; Schumacher, 2006).

RESEARCH FINDINGS

Descriptive Analysis:

This study uses descriptive analysis to answer the first objective of the study. Descriptive analysis is used to analyse the background of the respondent. This method finds percentages, frequency, mean and standard deviation in interpreting the variables in the study. The frequency and percentage used to describe the background of the respondent. Meanwhile, the mean and standard deviation are used to identify the readiness level of the m-Learning usage for the Qur'an's learning as a whole based on constructs among students of Islamic studies at UniSZA, Terengganu.

Demographic Background of the Respondents

This study involves 320 Islamic studies students in UniSZA, Terengganu. The study divides a total sample size according to respondents' gender. Respondents' gender is needed in this study because the researchers can find out whether the number of respondents is more inclined to male or female. This study used stratified random sampling which divides each gender equally in determining the amount of actual sample size of 160 respondents for each gender. They consist of a variety of ages which have been classified into five groups, which are, 18-20 years old, 21-23 years old, 24-26 years old. The majority of respondents were aged 21-23 years which is a total of 279 respondents (87.2%) and the lowest 24-26 years old which is a total of 20 respondents (6.3%) from 320 respondents. This study set a number of equally between each course study of 64 respondents for each Department. They consist of Bachelor of Syariah, Bachelor of Education, Bachelor of Usuluddin, Bachelor of Usuluddin and counselling and undergraduates of the Qur'an and as-Sunnah (Qiraat). In addition, the findings also showed the frequency of Qur'an's reading among respondents, majority is frequently read the Quran every day which are 250 respondents (78.1%) of the total number of actual respondents.

Readiness Construct Analysis which is The Usefulness of The of M-Learning Usage For Al Quran’s Learning In Islamic Studies Students,UniSZA.

Table 2 shows that there are nine items used for usefulness construct for m-Learning usage in Al Quran’s learning by the respondent. Referring to findings obtained, the mean value showed that majority of respondents tend to agree with the item ' I view the m-Learning usage can be used as alternative learning in line with current technology to the value of the mean between 3.29 up to 4.17. The value of the standard deviation obtained is between 0.67 up 1.05. This shows the mean value of usefulness used for Al Quran’s are at high levels among Islamic studies students in Unisza, Terengganu.

Table 2: Descriptive Analysis of The Utility Constructs of M-Learning Usage in Al Quran’s Learning

Bil.	Item	Mean	SD.	Interpretation
1.	I view the m-Learning usage can be used as alternative learning in line with current technology.	4.17	0.68	High
2.	I sure can use the mobile device technology in Al Quran’s learning.	4.17	0.69	High
3.	I believe the usage of m-Learning help me in Al Quran’s learning.	4.12	0.67	High
4.	I view the m-Learning usage can help me master the tajweed rules.	4.01	0.71	High
5.	I agree that the usage of m-Learning can replace the role of teachers in learning the Quran.	3.29	1.05	Medium
6.	I agree that m-Learning can be used as one of the medium for me to learn the Quran correctly.	3.97	0.79	High
7.	I believe the usage of m-Learning facilitates the process of learning the Quran without time limit and place.	4.12	0.70	High
8.	I'm sure m-Learning can be used as alternative to instructors for Al Quran teaching.	4.05	0.72	High
9.	I view the usage of mobile devices can improve me in memorizing al-Quran.	4.12	0.78	High
Valid N (listwise)				320

Readiness Construct Analysis which is comfort (ease of use) of Technology Usage for Al Quran’s Learning Among Islamic Studies Students, UniSZA.

Table 3 shows that there are four items used comfort (ease of use) of m-Learning usage in Al Quran’s learning by the respondent. Refers to the finding obtained, the mean value showed that majority of respondents are aware of the marking symbols in the Quran with the mean value between 3.96 up to 4.03. Meanwhile, the value of the standard deviation obtained is

among up to 0.76 until 0.81. This shows the value of the mean score of the comfort of m-Learning usage in Al Quran’s learning are at high levels among Islamic studies students in Unisza, Terengganu.

Table 3: Descriptive Analysis for Comfort of m-Learning Usage in Al Quran’s learning

Bil.	Item	Min	Sisihan Piawai	Interpretasi
1.	I am interested in learning the Quran by using m-Learning	3.97	0.77	High
2.	I would like to pursue m-Learning technology to learn the Quran.	3.96	0.78	High
3.	I plan on using a mobile phone as a tool for me to learn the Quran.	3.98	0.81	High
4.	I am comfortable in using technology such as mobile phones in launching the recitation of the Qur'an.	4.03	0.76	High
Valid N (listwise)				320

Readiness Construct Analysis which is the Willingness Technology Usage For Al Quran’s Learning In Islamic Studies Students,UniSZA.

Table 4 shows that there are five items used of comfort (ease of use) of m-Learning usage for Al Quran’s learning by the respondent. Refers to finding obtained, the mean value showed that the majority of respondents are aware of the marking symbols in the Quran with the mean value between 3.46 up to 4.02. Meanwhile, the value of the standard deviation obtained is between 0.72 up to 0.97. This shows the value of willingness mean score to use m-Learning for Quran’s learning are at high levels among students in Islamic studies in UniSZA, Terengganu. Therefore, overall constructs for usefulness of technology obtained the mean value = 4.00 with standard deviation value 0.58089 shows are at high level.

Meanwhile, the comfort constructs usage of technology obtained the mean value = 3.98 with standard deviation value 0.69443 shows that are on high level. Followed by technology willingness constructs usage obtained mean values = 3.84 with standard deviation value 0.69174 shows that high mean values. Consequently, the mean value of usefulness constructs knowledge about the usefulness of technology is higher followed by comfort and willingness constructs.

Table 4: Descriptive Analysis for Willingness Constructs of m-Learning Usage in Al Quran's Learning

Nu m.	Item	Mean n	SD.	Interpreta tion
1.	I am willing to use the m-Learning to improve in the Quran's learning.	3.98	0.76	High
2.	I am willing to use the m-Learning to raise the level of understanding in tajweed.	4.02	0.72	High
3.	I am confident that the usage of m-Learning is a good idea.	3.97	0.79	High
4.	I am willing to spend money for expenses buying mobile tools for the Quran's learning.	3.46	0.97	Medium
5.	When hearing about a new thing about the Quran's learning through ICT, I can't wait to try it out	3.78	0.86	High
Valid N (listwise)				320

Inferential Analysis:

Next, this study also uses the inferential statistical analysis to know the link between the two types of variables that under study i.e. independent variable and dependent variable. Inferential analysis of this study used One-Way Anova tests to answer the second objective of the study after the normality of the data review had been tested. Referring to this study, the mean comparison of the readiness of the m-Learning usage for Quran's Learning for Islamic studies students at UniSZA, Terengganu.

Table 5: One-way Anova Analysis differences of the readiness of m-Learning usage in Quran’s learning based on course of study

		Number of squares	Degrees of freedom (df)	The Mean Squared	<i>f</i>	<i>Sig.</i>
The usefulness	Between The Group	1.418	4	0.355	1.05	0.381
	InThe Group	106.224	315	0.337	1	
	Total	107.642	319			
Comfort	Between The Group	1.267	4	0.317	0.65	0.625
	InThe Group	152.567	315	0.484	4	
	Total	153.834	319			
Willingness	Between The Group	3.389	4	0.847	1.78	0.131
	InThe Group	149.256	315	0.474	8	
	Total	152.645	319			

Significant at the level of Values $p < 0.05$

Based on table 5, shows the result of One-way Anova test, the value of preparedness constructs which are the usefulness, comfort and willingness that is, $df = 4, 315, F = 1.051$ (usefulness); $F = 0.654$ (comfort); $F = 1.788$ (willingness). Significant level for all the three readiness constructs studies show $k = 0.381$ (usefulness); 0.625 (comfort) and 0.131 (willingness). According to Chua Bee Seok et al. (2014:106), when the value of $k < 0.05$, then the result of the study is significant. However, the findings of this analysis showed a significant level $k > 0.05$. Therefore, the results of the One-way Anova analysis test showed differences in readiness of the m-Learning usage for Quran’s learning is different significantly which is the value of k for these three constructs is greater than 0.05 .

Then, the Null hypothesis, there is no difference between the readiness of m-Learning usage in the Quran's learning by the course of study is received. Overall, the study found there were no significant differences between the readiness of the m-Learning usage Quran's learning based on course study. This shows the willingness of students in using m-Learning for learning the Quran is not influenced by factors of course study for each group of students. Each course study have the same readiness in using e-Learning for the Quran's learning.

SUMMARY AND DISCUSSION

Based on the discussion prior to this, the level of preparedness of the m-Learning usage for Qur'an's learning as a whole based on constructs among the respondents analysed using descriptive analysis. The results of the study found that the readiness of m-Learning usage on the Qur'an's learning as a whole based on constructs among respondents stood at high levels with the overall mean score between 3.84 up to 4.00. Overall, the One-way Anova test results showed that there are no significant differences between the readiness of students with the course study . The results for these three readiness constructs which are, usefulness, comfort and willingness is $k = 0.381$ (usefulness); 0.625 (comfort) and 0.131 (willingness) show null hypothesis the hypothesis in this study was received. Overall, the willingness of students to use technology in m-Learning in learning the Quran is not influenced by factors in the course study of each student. They have the same level of readiness for each group in the course study among the Islamic studies students at UniSZA, Terengganu.

Basically, researchers could not find studies specifically looking at the readiness of the m-Learning usage for Quran's learning based on the course study, therefore, researchers felt this kind of study appropriate to develop in higher learning institutions either in public universities or private sector. This matter shows that in the course of study is not an appropriate factor in determining the use of technology, especially in the era of globalization nowadays.

CONCLUSION

Based on the results' review, this study could summarize that the average of readiness of m-Learning usage in the Qur'an's learning among Islamic studies students are at high level. This means that, from the aspect of knowledge about the usefulness of technology, the comfort lead them to their willingness to use m-Learning technology in learning the Quran shows that the result of the study to make the m-Learning system as a medium in learning the Quran is relevant and appropriate to be done in the modern era now.

Hopefully, the results of this research can help in solving problems related to the weakness of the recitation of the Quran in among the community especially amongs Islamic studies students. The solution is fundamental priority to do and expected to contribute in promoting the return of knowledge of the Quran generally among the Muslim community and particularly for students in Malaysia.

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REFERENCES

Al-Suyuti, Jalaluddin (2008). *Al-Itqan Fi Ulum al-Quran*. j 1. Kaherah: Dar al-Salam.

Muhammad, A, Zia ul Qayyum, Waqar Mirza. Saad Tanveer. Martinez-Enriquez. Syed Afraz. (2012). 'E-Hafiz: Intelligent System to Help Muslims in Recitation and Memorization of Quran' dalam *Jurnal Sains Hayat*. 2012. Pakistan: Universiti Islamabad. Vol 9 (1).

al-Bashar, A. E. O. (2001). *Himpunan Tajwid al-Qur'an al-Karim*. Kota Bharu: Pustaka Aman Press Sdn.Bhd.

al-Daba, Ali Muhammad (n.d.). *Samir al-Talibin*. Qahirah: Sharikah Abd al-Hamid Ahmad Hanafi.

Ismail, D. et al. (2004). "Dabt Mushaf Uthmani : Perkembangan, Permasalahan dan Kaitannya Dengan Pembangunan Sosial di Malaysia". *Jurnal Usuluddin*, bil. 20. 125-144.

Razaly, F., Hussin, M. & Abdullah, M.Y. (2010). 'User Friendly System for the Visually Impaired in Learning al-Quran' dalam *Jurnal Wseas Transactions On Circuits And Systems*. Issue 6. vol 9.

Bahari, F. (2008). *Al-Quran Interaktif (Iqra')*. Disertasi yang dikemukakan bagi memperoleh Ijazah Sarjana Sains Komputer di Universiti Teknologi Malaysia, Faculty of Computer Science and Information System. Tesis tidak diterbitkan.

Mohd. Hani, F. (2000). Kemahiran membaca Nun Sakinah di Kalangan Pelajar Tingkatan Tiga di Sebuah Sekolah Menengah di Daerah Petaling. Tesis tidak diterbitkan. Fakulti Pendidikan, Universiti Malaya.

al-Azhari, H. (1991). "Sejarah Penulisan al-Qur'an". *Kursus Penulisan al-Qur'an Rasm Uthmani Peringkat Negeri Terengganu* pada 8/8/. 1991. Kuala Lumpur: Lembaga Pengawalan dan Pelesenan Pencetakan al-Qur'an.

Zulkifli, I. & Abdul Ghani, A. R. (2013). Keperluan Bertalaqqi dan Bermusyafahah Dalam pengajaran dan Pembelajaran Ilmu al-Quran: Satu Tuntutan.

Ridhuan, J. 2000. *Kaedah pengajaran dan pembelajaran al-Quran*. Kuala Lumpur : Pustaka Salam Sdn. Bhd.

Krejcie, R.V & Morgan, D.W. 1970. *Determining sample size for Research activities*. Educational and Psychological Measurement. 30 (3): 607-610.

al-Qattan, M. (2000). *Mabahith fi Ulum al-Quran*. Kaherah: Maktabah Wahbah.

Iqbal, M. 2005. *Kaedah pembelajaran al-Quran*. Jakarta: Gunung Agung.

Ahmad, M. Y. 2000. *Sejarah dan Kaedah Pendidikan al-Quran*. Kuala Lumpur: Penerbitan Universiti Malaya.

Mohd Nasir, N. H, Fauziah Baharom, Harryizman Harun, Haslinda Mohd, Ali Yusny Daud, Norida Darus & Ahmad Ghadafi. (2010). Model Pembelajaran e-Tajwid (eLTM) berasaskan semantik dan elemen multimedia. In *Proceeding of Regional Conference on Knowledge Integration in ICT*. pp. (89-97).

Popovich, P.M., Gullekson, S. And Morse, B. (2008). Comparing attitudes towards computer usage by undergraduates from 1986 to 2005. *Computers in Human Behavior*, 24, 986-992.

Ahmad, S. F. & Tamuri, A. H. (2010). Persepsi Guru Terhadap Penggunaan Bahan Bantu Mengajar Berasaskan Teknologi Multimedia dalam Pengajaran j-Qaf. *Jurnal Islam dan Pendidikan Arab*. 2 (2). 53-64.

Su Luan, Wong, Sidek Abdul Aziz, Aida Suraya Mohd Yunus, Zakaria Sidek, Kamariah Abu Bakar dan Hamidah Maseran. (2005). Gender Differences in ICT Competencies among Academicians at Universiti Putra Malaysia. *Malaysian Online Journal of Instructional Technology*. 2(3): 62-69.

Md. Darus, Z. (2001). Sikap Pensyarah dan Pelajar Fakulti Sains Universiti Teknologi Mara (UiTM) Terhadap Penggunaan Internet dalam Pengajaran dan Pembelajaran. *Projek Sains Sarjana Penyelidikan*. Bangi: Universiti Kebangsaan Malaysia

Abdullah, Z. 2009. Pembentukan Komuniti Pembelajaran Profesional : Kajian Terhadap Sekolah Menengah di Malaysia dalam *Jurnal Pendidikan*. No.2. 79-95.