

The Relationship between the Attitudes of Islamic Education Lecturers towards the Application and Knowledge of Multimedia in Teaching

Mohd Aderi Che Noh¹, Rinaldi¹, Nur Hanani Hussin¹ & Nor Hayati Fatmi Tali¹

¹Faculty of Education, Universiti Kebangsaan Malaysia

Correspondence: Mohd Aderi Che Noh, Faculty of Education, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia. E-mail: aderi7472@gmail.com

Received: July 31, 2013 Accepted: August 13, 2013 Online Published: August 30, 2013

doi:10.5539/ass.v9n11p1 URL: <http://dx.doi.org/10.5539/ass.v9n11p1>

Abstract

The advancement of technology has provided innovation in teaching and learning particularly at the Higher Learning Institutions. This article aims to identify the relationship between Islamic Education lecturers' attitudes towards the application and knowledge of multimedia in teaching. This study is in the form of a survey conducted to obtain quantitative data. The data collected can explain the level of multimedia usage, the level of multimedia knowledge, and lecturers' attitudes in the application of multimedia via a questionnaire which uses the stratified random sampling method. The sample consists of 250 out of 1709 Islamic Education lecturers at the Higher Learning Institutions in West Sumatra who serve in the universities, institutes and high schools. The results showed that the level of application of multimedia among lecturers was still at a moderate level while the level of multimedia knowledge was high and lecturers' attitudes showed a high mean score. For these reasons, training and courses related to multimedia teaching must be increased and taken into account by the responsible parties.

Keywords: Islamic education, instructional multimedia, attitude, knowledge, multimedia, multimedia application

1. Introduction

The use of technology in education can make the learning process more efficient, effective, fun and ultimately provide a positive value in the learning process (Rosbottom & Maniar, 2004). In addition, students get to integrate the use of their senses (Mayer & Moreno, 2003). Zhang & Xu (2009) suggest that universities provide facilities for easy access to multimedia. The ICT (Information and Communication Technology) facilities should be built as the processes of teaching and learning could not function well if these facilities are not available.

Studies show multimedia can make teaching and learning more exciting, interactive, and effective including in Islamic education studies (Wan Noor & Kamaruzaman, 2009; Jundan, 2008). The use of multimedia in teaching is more effective than using the traditional method of teaching (Abang & Mohd. Taib, 2007). Multimedia which includes hypertext, audio, video, animation, simulation and interactivity makes the process of cognitive learning feasible. Its presence stimulates of the students' minds in understanding lessons as students can visualize lesson concepts which are difficult to understand through verbal lectures. The various benefits of multimedia usage have led researchers to observe Islamic Education lecturers' attitudes towards the use and knowledge of multimedia in teaching.

2. Literature Review

Studies on the application of multimedia in education have been conducted in Malaysia as well as Indonesia. Studies were conducted by Ismail (2000), Said (2001), Khadijah & Zaib (2002), Siti Aishah et al. (2002), Abdul Manan (2005), Mohd. Jasmy et al. (2005), Abd. Wahab et al. (2006), Mohd. Izham & Noraini (2007), Jundan (2008), Fui & Boon (2009), and Wan Noor & Kamaruzaman (2009). The findings of previous studies found that the advantages of multimedia aided teaching are still in line with the skills of lecturers using multimedia. Similar opinion was voiced by Herman & Abd Gafur (2010) who stated that there are still constraints in the utilization of ICT in institutions of which one of these includes human capital resources, especially senior academic staffs which are not yet competent in multimedia operations. Herman & Abd. Gafur (2010) also proposed that all

academic staffs in institutions can improve their competencies in the field of ICT (Information and Communication Technology). With the availability of ICT competency, the staffs in academic institutions can advance the teaching and learning as well as the education in an institution.

West Sumatra is one of Indonesia's Islamic states where religious education is practised. The West Sumatra is also famous for its slogan which state "tradition [*adat*] founded upon Islamic law, Islamic law founded upon the Qur'an". The effectiveness of Islamic Education is very important to the student until the student is able to practice of Islam. The progress of a nation is not only guided by youths with high intellectual ability but also those with good moral character. Thus, it is appropriate for Islamic Education to receive attention, including the application of multimedia in teaching and learning process. Therefore, the study will examine the relationship between the level of application and knowledge of multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra.

3. Research Problems

Multimedia in education is like a polemic. Multimedia has many benefits in its application in the world of education but from another point of view, it is not in line with the knowledge of academic staffs in its implementation in teaching. Lack of knowledge in the use of multimedia is also caused by lack of exposure to teaching with multimedia. Mohd. Izham (2007) stated that many lecturers have yet to undergo a course on multimedia teaching, so that they do not have the confidence and are ultimately unmotivated to use multimedia. The lack of knowledge towards the use of multimedia is also worsened by with the negative attitudes shown by lecturers as evidenced in the study by Melvina & Jamaluddin (2010).

In West Sumatra, some cases show problems of limited ICT tools, especially in rural area schools resulting in low levels of multimedia application in teaching. Limited multimedia facility will be reduced in number because of damaged facilities. The studies that have been carried out previously were mostly done on school teachers and not on higher education lecturers. Most of the findings of the studies showed the results of low to moderate use of multimedia in teaching at primary and middle levels (Ismail, 2000; Khadijah & Zaib, 2002; Izham & Noraini, 2007). By looking at the above background it can be concluded that a problem exists in the study area on to what extent of multimedia application among lecturers of Islamic Education in Higher Learning Institutions in West Sumatra?

4. Objectives of the Study

This study aims to identify the levels of knowledge, usage and attitudes toward multimedia application in teaching and learning among lecturers in Islamic Education. Specifically, the objectives of this study are as follows:

- 1) Identify the level of application of multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra.
- 2) To what extent of knowledge on the application of multimedia among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra.
- 3) Identify whether there is a relationship between the level of application and attitudes towards the use of multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra.
- 4) Identify whether there is a relationship between level of knowledge and attitude towards the application of multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra.

5. Research Hypothesis

Null-hypothesis (H_0): There was no significant correlation between the application and lecturers attitude towards multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra.

Null-hypothesis (H_0): There was no significant correlation between the knowledge and lecturers attitude towards multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra.

6. Research Methodology

This study is a pilot survey and carried out to obtain quantitative data. The data collected by using questionnaires method are able to explain the levels of multimedia application, level of multimedia knowledge, and lectures' attitudes in multimedia application. The population studied includes a total of 1,709 Islamic Education lecturers with academic qualifications of Master's and Doctorate degrees who are serving in the Higher Learning

Institutions in West Sumatra covers university, institute and high school.

Table 1. Population of islamic education lecturers in West Sumatra

No.	Name of Institution	Total lecturers
1.	Muhamadiyah University of West Sumatra	520
2.	Islamic Religious Institute of Padang	1009
3.	Islamic Religious High School of West Sumatra	180
	Grand Total	1709

This study uses a stratified random sampling method. This sampling method divides the sample into layers so that each stratum is a representative sample of the population. The sample in each stratum can be representative enough to be used in hypothesis testing. This method was chosen because the study population is not homogeneous in terms of its demographic factors such as gender, education or academic qualification, age, type of institution, location of teaching, teaching experience, training and the amount of workload. Stratified random sampling can provide more accurate sample validity because the sample size distributions are quite similar (Brymer & Cramer, 2005). The researcher chose a total of 250 lecturers from the three higher learning institutions mentioned above as respondents in this study.

This study is a descriptive and inferential study. The data collected were processed and analyzed using the Statistical Package for the Social Sciences 11.5 (SPSS version 11.5) programme. The characteristics of the study variables can be described by using descriptive analysis (Chua, 2006). General overview of profile of respondents by gender, education, age, teaching institutions, the location of the teaching institutions, teaching experience, training and the amount of workload can be seen from the results of the descriptive analysis.

The Pearson-r correlation method was also used to examine the relationship between two variables and to determine the strength and direction (attributes) of a relationship (Alias, 1992). The strength of this correlation is represented by using the correlation coefficient (r) and the value of this correlation coefficient is in the interval $-1 \leq r \leq 1$. Values -1 and 1 at intervals of correlation indicate that a relationship has the highest connection strength. However, the symbols of + and - do not affect readings and can be ignored. It is just to demonstrate that a correlation either have a strong negative relationship or a strong positive relationship. To determine the strength of relationship between two variables, researchers used the estimated strength which was proposed by Jackson (2006).

7. Research Findings

7.1 Research Respondents

This study involved a total of 250 respondents which consists of Islamic Education lecturers at the Higher Learning Institutions in West Sumatra, specifically in Padang and West Pasaman.

In this study, descriptive analysis was used to determine the application level of multimedia, and level of knowledge in using the multimedia in teaching. Assessment of mean scores were made based on the level of high, medium and low based on Mohammed Sani et al. (1999).

7.1.1 Level of Multimedia Application in Teaching

As a whole, the results showed that the use of multimedia in teaching among Islamic Education lecturers in Higher Learning Institutions in West Sumatra was moderate with mean score of 2.65 and a standard deviation of 0.620. However, there are still some issues about the application of multimedia at a low level such as "I use video clips as teaching materials in the classroom" (Mean Score of 1.87, SP=0.954) and "I am using animation in teaching material" (Mean Score of 2.23, SP=0.831).

The highest mean was on the use of graphics or diagrams as teaching materials (Mean Score of 3.17, SP=0.626). Based on the mean score of each item, we can identify the sequence application level of multimedia from the highest level reached to the lowest level of application. The sequence begins with the use of graphics (figures) as teaching aids, the use of power point, the use of computers in classroom teaching, multimedia combinations for specific topics, application of multimedia for hard to comprehend topics, the application of audio facilities, animation, and finally video clips.

7.1.2 Level of Knowledge in Multimedia Application in Teaching

The results showed that the level of knowledge of multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra was high with an overall mean score of 3.48 ($SP=0.393$). The highest mean was for the item about the importance of the application of multimedia in teaching and learning (mean score of 4.21, $SP=0.758$), whereas the lowest mean score was on making animations for teaching (mean score of 2.38, $SP=0.958$). The items on the application of video clips in the classroom, preparing materials using audio, making animations for teaching, using interactive multimedia to make teaching effective and use of educational software available was of a moderate level. While other items such as computer literacy, power point, knowledge of multimedia, graphics design, and knowledge of the importance of multimedia application in teaching was at a high level.

7.2 Inferential Analysis Findings

To determine the strength of relationship between the two variables studied, the researcher used the estimated strength proposed by Jackson (2006).

7.2.1 The Relationship between Level of Application with the Lecturer's Attitude towards Multimedia in Teaching

Null-hypothesis (H_0_1): There were no significant correlation between the application and lecturers attitude towards multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra.

Table 2. The correlation between level of application with the lecturer's attitude towards multimedia in teaching

	r	p
Level of Application *	0.994	0.000
Lecturer's Attitude Towards Multimedia in Teaching		

The results showed that the study obtained the Pearson correlation (r) between the application level and lecturers attitudes as 0.994 and significant value is 0.000. This shows that there is a significant correlation with a high strength of relationship (Jackson, 2006). Therefore, the Null-hypothesis (H_0_1) shows that there is no significant relationship between the application and lecturers attitudes towards multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra is rejected.

Null-hypothesis (H_0_2): There were no significant correlation between the knowledge and lecturers attitude towards multimedia among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra.

Table 3. The correlation between the level of knowledge and lecturers attitude towards multimedia

	r	p
Level of Knowledge *	0.330	0.000
Lecturer's Attitude Towards Multimedia		

The results showed that the Pearson correlation (r) between level of knowledge and attitudes of lecturers as 0.330 and significant value is 0.000. This shows that there is a significant correlation with a moderate strength of relationship (Jackson, 2006). Therefore, the Null-hypothesis (H_0_2) shows that there is no significant relationship between level of knowledge and lecturer's attitude towards multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra is rejected.

8. Discussion

As a whole, the findings show that the level of multimedia application in teaching among Islamic Education lecturers at the Higher Education Institutions in West Sumatra is moderate. The most commonly used media is the graphic media. These findings are supported by Yusof Hashim (1997) which stated that the application of graphic media facilitate the identification of objects, classification of objects, helps with clarifying the spatial relationship of an object, and also help explain abstract concepts into concrete. Overall, the results also show that the level of knowledge in multimedia in teaching among Islamic Education lecturers at the Higher Learning

Institutions in West Sumatra is high.

The results showed that the Null-hypothesis (H_0) is rejected. The study also found that there was a significant relationship between the attitudes of lecturers with the application of multimedia in teaching. This means that lecturers' attitudes affect the use of multimedia in teaching. The findings of this study support Larry et al. (2001), Becta (2004) and Abd. Wahab et al. (2006) which stated that attitude is a driving factor for the lecturer to use the multimedia in teaching. The above findings indicate that a high level of knowledge influence much on the increasing of multimedia application. There also have other factors supporting this such as intrinsic and extrinsic motivation. Extrinsic factors that motivate are the support from the university such as appreciation in the form of reward or incentive which is specially given to the lecturers who have applied multimedia in teaching or the provision of facilities for the use of multimedia. While, the intrinsic motivation includes the efficacy and self confidence of the lectures themselves in using multimedia in teaching.

The result showed Null-hypothesis (H_0) is rejected. The study found that there is a significant relationship between the attitudes of lecturers and the application of multimedia in teaching. The strength of the relationship between knowledge and attitudes of lecturer was at a moderate level. This means that the attitudes of the lecturers were moderately influential in the increase of the lecturer's knowledge in multimedia. The highly positive attitudes of lecturers did not seem to exert much effect on their knowledge. This suggests that a positive attitude is not quite enough as motivation for them to increase their knowledge. Other factors are needed such as training or effective multimedia workshop to increase knowledge. In addition, the lecturers were also willing to undergo multimedia training. The statement "willing to undergo training" is a wonderful and optimistic notion that needs to be noted by the parties involved.

9. Conclusion

The National Education System in Indonesia aims to revitalize the lives of its people and expand the intellectual spirit of the human race as people who believe in Allah the One and Only and possess virtuous and noble characters, knowledge and skills, are physically and spiritually healthy, have strong and independent personalities, and have a sense of civic responsibility and ethnicity (SISDIKNAS). Based on this aim the researchers conducted a study concerning the application of multimedia in teaching among Islamic Education lecturers at the Higher Learning Institutions in West Sumatra. It is hoped that the findings of this research able to help the various parties to take into account the efforts that can improve the use of multimedia which can result in producing students who are intelligent, excellent, courteous and possess physical and spiritual health in accordance with the National Education System (SISDIKNAS).

References

- Abang Haji Julhi, A. I. B., & Harun, M. T. B. (2007). Keberkesanan Penggunaan Multimedia terhadap penguasaan kemahiran sukan bola baling. *Seminar penyelidikan Institut Perguruan Batu Lintang Tahun, 1-25.*
- Becta. (2004). *A review of the research literature on barriers to the uptake of ICT by teachers*. Retrieved from <http://www.becta.org.uk>
- Che Ku, I. B. (2000). *Kemahiran dan sikap pensyarah pendidikan islam terhadap penggunaan komputer dalam pengajaran di maktab perguruan islam Bangi*. Tesis Sarjana Pendidikan. Universiti Kebangsaan Malaysia.
- Ching, M. C. H., & Badusah, J. (2010). Sikap guru bahasa terhadap penggunaan teknologi Maklumat Komunikasi (ICT) dalam pengajaran di sekolah-sekolah rendah di Bintulu, Sarawak. *Jurnal Pendidikan Malaysia, 35(1)*, 59-65.
- Draman, S. (2001). *Pengajaran dan pembelajaran bahasa Arab berbantukan komputer: persepsi guru-guru bahasa Arab di Daerah Hulu Langat*. Tesis Sarjana, Universiti Kebangsaan Malaysia.
- Gani, A. W. I., Siarap, K. H., & Mustafa, H. (2006). Penggunaan komputer dalam pengajaran-pembelajaran dalam kalangan guru sekolah menengah: Satu kajian kes di Pulau Pinang. *Kajian Malaysia, XXIV(1&2)*, 2003-2225.
- Hanawi, S. A., Sahuri, N., & Mohamed, H. (2002). Kajian perbandingan kesedaran, pengetahuan dan penggunaan ICT di kalangan guru sekolah Bandar dan luar Bandar. *Prosiding Seminar Profesional Perguruan*.
- Hashim, Y. (1997). *Media pengajaran untuk pendidikan dan latihan*. Shah Alam: Penerbit Fajar Bakti.
- Ibrahim, M. S. H., Wahab, J. L. A., Hamzah, M. I. M., & Katimah, W. (1999). Kajian keberkesanan perlaksanaan program latihan guru sekolah bestari. *Projek Penyelidikan G9/99*. Fakulti Pendidikan Universiti

Kebangsaan Malaysia.

- Izham, M., Hamzah, M., & Attan, N. (2007). Tahap kesediaan guru sains dalam penggunaan teknologi maklumat berasaskan komputer dalam proses pengajaran dan pembelajaran. *Jurnal Teknologi*, 46(E), 45-60.
- Jundan. (2008). *Efektifitas penggunaan multimedia dalam pembelajaran Sirah Nabawiyah* (studi eksperimen di Madrasah Aliyah Tahfizhul Qur'an Program Takhassus Ma'had Isy Karima Gerdu Karangpandan Kabupaten Karanganyar Tahun Pelajaran 2007/2008). Tesis Sarjana. Universitas Muhammadiyah Surakarta.
- Jusoh, W. N. H. W., & Jusoff, K. (2009). Using multimedia in teaching Islamic studies. *Journal of Media and Communication Studies*, 1(5), 86-93.
- Khadijah, & Ngah, Z. (2002). Isu dan Cabaran Perlaksanaan Kurikulum Pendidikan Islam (KBSM). In Dlm et.al. (Eds.), *Kurikulum Bersepadu Pendidikan Islam Menghadapi Cabaran Era Globalisasi*. Bangi: Fakulti Pendidikan UKM.
- Larry, C., Heather, K., & Craig, P. (2001). High access and low use of technology in high school classroom: explaining an apparent paradox. *American Educational Research Journal Winter*, 38(4), 813-834. <http://dx.doi.org/10.3102/00028312038004813>
- Lee, F. T., & Yeap, B. H. (2009, April). The Use of educational technologies in Univesity Teaching & Learning m-ICTE 2005. *International Conference on Multimedia and ICT in Education*, 22-24.
- Manan, A. (2005). *Sikap terhadap penggunaan komputer di kalangan guru-guru yang mengikuti kursus aplikasi teknologi maklumat dan komunikasi (ICT) dalam pengajaran dan pembelajaran*. Tesis Sarjana, Universiti Kebangsaan Malaysia.
- Mayer, R., & Moreno, R. (2003). Nine ways to reduce cognitive load in multimedia learning. *Educational Psychologist*, 38(1), 43-52. http://dx.doi.org/10.1207/S15326985EP3801_6
- Rahman, M. J. A., Awaluddin, S., & Ismail, M. A. H. (2005). Tahap penggunaan alat teknologi pengajaran di kalangan guru-guru pendidikan Islam dalam proses pengajaran dan pembelajaran. *Prosiding Wacana Pendidikan Islam (Siri 4)*.
- Rosbottom, J., & Maniar, N. (2004). Streaming media: How it change education? *KDU Symposium on IT in Education*.
- Sherry, J. L. (2006). *Research method and statistic. A critical thinking approach*. Belmont: Thomson HIgher Education US.
- Surjono, H. D., & Gafur, A. (2010). Potensi pemanfaatan ICT untuk peningkatan mutu pembelajaran SMA di kota Yogyakarta. *Cakrawala Pendidikan*, 2, 161-175.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).