

Educational Technology Media Method in Teaching and Learning Progress

¹Ahamad Asmadi Sakat, ²Mohamad Zaid Mohd Zin,
¹Rusli Muhamad, ³Anzaruddin Ahmad,

²Nurfahiratul Azlina Ahmad and ⁴Mohd Arip Kasmo

¹Department of Al Quran and Al Sunnah Studies, Faculty of Islamic Studies,
Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia

²Centre for Islamic Thought and Understanding,
University Technology Mara, 94300 Samarahan, Sarawak, Malaysia

³Faculty of Modern Languages and Communication,
Universiti Putra Malaysia (UPM), Malaysia

⁴Centre For General Studies, Universiti Kebangsaan Malaysia,
43600 Bangi, Selangor, Malaysia

Abstract: Problem statement: The objective of this research was to evaluate the level of understanding and students' interest in Jawi education, after educational technology media was used in teaching and learning at primary schools. This study emphasizes with more detail on the aspects of usage and effectiveness media-aided teaching system. Exploring the notion of instrument, recognized positive attitude and students associated with the use of educational technology media in teaching and learning process. **Approach:** A total of 52 students taken as a respondent at National School of Changgai Kelantan, reviewed the Educational Technology Media as a teaching method. Purpose of this study was to compare the scoring percentage, after using the ordinary method and educational technology media as a teaching aid. In order to realize the ultimate objective, field studies, questionnaire and survey libraries were implemented. **Results:** Proceeds from the research found that teaching and learning process with the use of Jawi in Educational Technology Media had a positive effect on students. The results showed that more than 63.4% student achievement increased in Jawi education after using this instrument. **Conclusion:** Computer usage can stimulate effective learning and improve the performance of Jawi education, enhancing the high level of interactivity among students.

Key words: Jawi education, educational technology media, teaching method, multimedia production, ultimate objective

INTRODUCTION

Currently, the education system is undergoing rapid changes. Various new methods are introduced and used. Further, it makes teaching more effective and learning is highly significant. Inevitable, the media has been dominating in all aspects of life. Every individual is surrounded by various media such as books, magazines and internet. Other than parent, it is the responsibility of teachers to help their students to become critical consumers when using the variety of media sources. Karpudewan *et al.* (2011) states that education is critical to sustain the future. It is a

solution to provide information and start to change our values and behaviors.

Development of technology in education has ability to answer the questions about the impact of technology in reconstruct the education system and the use of technology, in line with learning theory. While, expanded use of computer facilities and other mass media will led to the rapid transfer of information. Esmaelzadeh *et al.* (2011), often occur questions about the use of computers and it related in aspects of teaching, the ability of students to think actively, critically and to the formation of a spirit of cooperation among students.

Corresponding Author: Ahamad Asmadi Sakat, Department of Al Quran and Al Sunnah Studies, Faculty of Islamic Studies, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia

Teachers should act an essential role as a facilitator in the process of teaching and learning. Instance, teachers conduct teaching and learning process as a small group in the classroom (Cooperative Method). This has been proved by many studies that cooperative learning can increase the effective achievement of consistent domain. Besides that, oriented teaching and learning process diversity in media technology will make the sessions more interesting and understandable.

Kumar *et al.* (2008), there are studies and the existence of the Technology Acceptance Model (TAM). It is a parsimonious, theoretically and empirically justified model aimed at explaining the usage of information systems. It states that behavior is driven by the intention to use a system, which in turn is driven by the users' attitude and perceptions of normative influences. According to the model, a teachers' decision to use a technology is linked with the technology usefulness, ease of use, computer self-efficacy, job relevance, compatibility and subjective norm. The successful teachers need to be knowledgeable and skilled in the application of new technologies in order to extend teaching effectiveness besides enhancing positive attitudes

Romiszowski (1992) justify that Educational Technology Media can be categorized from the most common equipment used in schools which is the textbook and the blackboard, to modern media such as high-tech computer equipment, LCD, Internet and digital cameras.

The role of multimedia: Multimedia is the integration between the various media such as text, numeric, graphics, images, video, animation and sound in a digital environment, as well as has the ability to enable users to achieve interactivity requirements without the sequence. Multimedia is a combination of two or more types of media to create a sequence of programs that are effective in conveying an idea, with the assistance of both sound and visual. Hesson (2006) finds computer simulators are used in education to help students understand and comprehend specific topics. Topically, multimedia production developed and controlled by a computer.

Multimedia is the use of computers to present and integrate text, audio, video with links and tools that allow users to navigate, interaction, creation and communication. It is well known that teaching can be vastly amplified when it is not done purely theoretically, but visually and interactively instead. This

way, students can obtain a deeper understanding of the subject being taught (Dimitrios *et al.*, 2005).

Teaching and learning: Learning is an activity that leads to change and control of what is taught, while teaching is a practical activity or action, be intentional and conscious to assist learning.

Based on Gibbons and Fairweather (1998) and Kumar *et al.* (2008) literature, it could be easily deduced that teachers use computer for teaching and learning. They use the computer to impart knowledge in the classroom, create variety, conduct activities, easily deliver their wordy explanations and instill interest in the lesson they are teaching.

The computer gives teachers the confidence in the classroom as they are not looked down by their students as obsolete and old fashioned. They prove to the contemporary generation that they too know modern technology and are not left behind time. (George *et al.*, 2000; Kumar *et al.*, 2008) According to (Al-Shaibani and Daoud, 2011), emphasized that teachers must use thinking map for activities or active organized thinking and teachers should incorporate into their lessons to make good thinking skills lessons. Challenges and use new strategies in order to gain better understanding of the topic.

Furthermore, infusion gave the students the ability to infer differently and develop abilities in analysis, synthesis and imagination. Teaching and learning process is event that occurred in the classroom with the following characteristics; (a) the purpose, content and approach are planned in advance by the teacher (b) learning-oriented guidance of a teacher, (c) teaching in a large or small groups according to levels of schooling and (d) assessment in the form of test or examination to assess the effects of teaching and learning outcomes.

Literature (Hameed, 2011) shows that some people believe a revolution is taking place on education, in the way people learn and the way instruction is given. Internet, multimedia and mobility usage in education process nowadays is expanding rapidly in teaching and learning.

Educational development of Jawi: Yaakob (2007) found a decrease of education due to the weakness in Jawi writing skills, which no one from form five students have good control of the Jawi script. Only 56% of the students can write Jawi at a moderate level and 11.1% have not acquired the ox. While, 87% of students not using the Jawi script when writing notes and overall education of students not using the Jawi script during the examination.

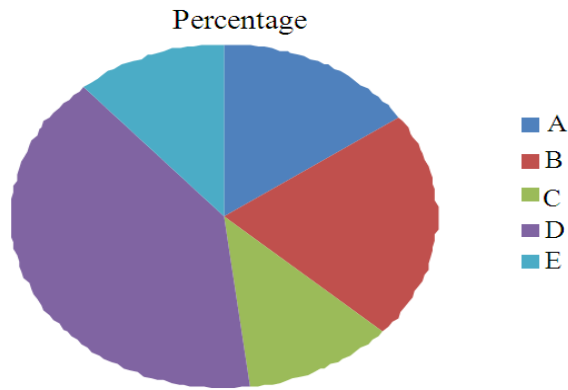


Fig. 1: Distribution of respondents according to the results of subjects including Islamic Education and Jawi Test

Among the factors that influence the acceptance and used of Jawi is caused by internal factors students themselves. The findings showed that 95% of students did not deem important of Jawi through it is not assessed in the examination. Accordingly, the Ministry of Education are suggested that assessment of the Jawi script need included in the examination as Lower Secondary Assessment Examination Certificate (PMR) and Certificate of Malaysia Education (SPM).

Besides that, lack of proficiency among students because of Jawi script is not used widely in the community and not equally of concern compared to the Latin alphabet. In addition, the Jawi script does not have a uniform spelling system and not according to syllables.

Teaching and learning using the technology media:

The learning process begins with information obtained from the stimulus received by the senses, perception formation process by means of information and is stored as an experienced that can be applied. Application of media in teaching will be to diversify the skills of intelligence, which is absolutely necessary to acquire a skill.

Applications of educational technology media in teaching and learning help teachers communicate information of interest to students as well. Sampath (1984) claims, people learn through the senses and each sense has a different learning percent. According to him, people learn through the sense of taste 1%, 1.5% sense of touch, sense of smell is 3.5%, 11% and hearing through the senses of sight by 83%. The involvement of various visual media as a stimulus to the learning process is the first choice of many educators (Fig. 1-5).

The use of media in teaching will be able to overcome the problem of students with different learning styles. Coombs (1999) states learning occur a few minutes when teachers only speaking in front of the classroom and students sit passively (one-way learning).

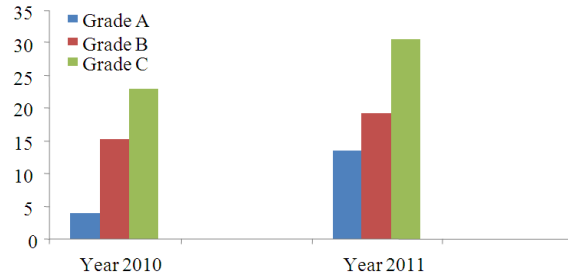


Fig. 2: Percentage of passes

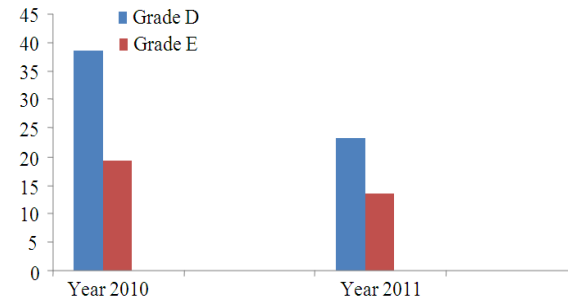


Fig. 3: Percentage of failed

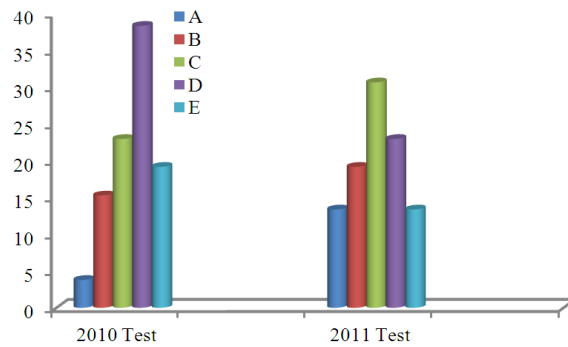


Fig. 4: Percentage of achievement

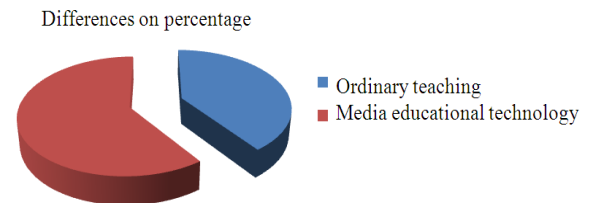


Fig. 5: Distribution of respondents performed on an ordinary method and educational technology media method

He said the lines of communication easily failure and this situation leads to a frustrating learning process. Media use is also associated with the statement Abeles *et al.*

(1994), which said that the learning process should be consistent with physical and mental development of students. Fun learning sessions, using a form of learning activities spontaneously, should involve the student's physical and mental factors.

The touched in the various aspects of multimedia technology, accordance observations in student motivation might help students. Multimedia technology make learning subject important and helps increase students' interest and understand clearly the scope of the various subjects in study. Clearly, the lesson has to do with learning, where teaching is nothing without learning.

MATERIALS AND METHODS

Observation results of test in Jawi Education and questionnaire is an instrument that is implemented. The purpose of the questionnaire is to obtain the student's background, especially relation to an interest in learning Jawi Education and learning pattern of the past. Meanwhile, questionnaire based on previous and after going through the learning process aided media educational, Jawi Education will be examined. The results of students from these questions will be used to study the effectiveness of teaching and learning education aided media technology, thus making comparisons between the ordinary teaching lessons and using educational technology media method.

RESULTS

Islamic Education Examination Results in the end of 2010, including the Education of Jawi (Table 1). Distribution of Respondents Based on Performance Using Ordinary Teaching Methods for Test 2 (Final) Year 2010 and Educational Technology Media Methods for Test 1 (Early) Year 2011 (Table 2-3).

Table 1: Distribution of Respondents According to the results of Islamic Education subjects, including Jawi Education Tests during the final semester of 2010

include Jawi Education in late 2010 Results in Islamic Education Subjects	52 Respondents	
	Number of students	Percentage
A	8	15.4
B	11	21.2
C	6	11.5
D	21	40.4
E	6	11.5

Table 2: Distribution of respondents for 2010 and 2011 tests in teaching performance tests

Marks range	Grade	2010 Test		2011 Test	
		No. of students	(%)	No. of students	(%)
80-100	A	2	3.8	7	13.4
60-79	B	8	15.3	10	19.2
40-59	C	12	23.0	16	30.7
20-39	D	20	38.4	12	23.0
1-19	E	10	19.2	7	13.4

DISCUSSION

By using the Media Education Technology such as computers, multimedia software is programmed so that students can be actively involved and able to choose a variety of exercises and questions provided in the software. Computers also help in creating a strong relationship between teachers and students, through the tendency of learning through computers. With this, the system of effective teaching and learning can be implemented, as is proven by the test results of 2010 and 2011.

Media usage in teaching and learning intend to motivate students, coupled with attractive multimedia use, causing the students' convenience and enjoyment in learning. Students will also be more inclined to learn a new one topic in their learning. The technology aided learning media can provide an experience that is different from conventional learning.

The use of Educational Technology Media also facilitates student and teacher identify problems that often arise during the teaching and learning. Under the student centered strategy, the students play an active role in the learning process. According to this strategy, the students participate actively in their learning activities. The approach to computer-aided teaching and learning such as.

Drills: Drills training to provide experience and skills related topics in Jawi education. Students will enjoy answering questions prepared and able to respond at the same time. Normally, the training concerning the use of computer, to evaluate the level of students' ability.

Simulation: Simulation is a real experience provided by the teacher, with the use of computer-based media technology on an object. This simulation aims to provide facilities and attract students in their learning process.

Tutorial: Tutorial is a space that considered by the teacher in providing an effective learning experience on Jawi education. Students able to communicate and interacting with teachers (bilateral discussions). The content will be presented in accordance with step by step, from simple to more challenging levels of ability. This progressing helps teacher to measure students' understanding and give instructions to students based on responses given.

Table 3: Result for differences on percentage of marks in Test year 2010 and 2011 based on method used

Teaching methods	Percentage of difference scores
Ordinary teaching methods	42.3
Teaching using educational technology media method	63.4

CONCLUSION

Computer usage can stimulate effective learning and improve the performance of subjects Jawi, enhancing the high level of interactivity among students. Results of analysis carried out showed that there was increased student performance after the use of educational technology media. Of the 52 respondents, about 33 people to obtain higher marks in the test year 2011 compared to a total of 22 students who passed in 2010 using ordinary methods.

Importance of computers as teaching aids need not be overstated. Ordinary teaching method is no longer relevant today. The teacher's role is no longer as a presenter of information but has become a facilitator for learning and teaching process. The use of computers is not intended to replace the role of the teacher, but actually intended to create an atmosphere of teaching and learning more fun and interesting. Computer usage to facilitate teaching and learning process, enrich teaching techniques and help teachers in teaching and learning objectives effectively if used in a systematic and continuous.

REFERENCES

- Abeles, H.F., C.R. Hoffer and R.H. Klotman, 1994. Foundations of Music Education. 2nd Edn., Schirmer, New York, ISBN-10: 0028700112, pp: 408.
- Al-Shaibani, Y.A. and J.I. Daoud, 2011. Thinking skills course and student's academic self-efficacy. *Aus. J. Basic Applied Sci.*, 5: 403-415.
- Coombs, W.T., 1999. Information and compassion in crisis responses: A test of their effects. *J. Public Relat. Res.*, 11: 125-142. DOI: 10.1207/s1532754xjpr1102_02
- Dimitrios, A., P. Konstantinos, S. Nikolaos and S. Angelo, 2005. Application of a new network-enabled solver for the assignment problem in computer-aided education. *J. Comput. Sci.*, 1: 19-23. DOI: 10.3844/jcssp.2005.19.23
- Esmaelzadeh, S., F. Jahdi, H. Haghani and S.E. Saeieh, 2011. Access to internet and using for health information in women's that referred to Health Centers of Universities in Tehran City. *Aus. J. Basic Applied Sci.*, 5: 1204-1208.
- Gibbons, A.S. and P.G. Fairweather, 1998. Computer-Based Instruction: Design and Development. 1st Edn., Educational Technology Publications, New Jersey, ISBN-10: 0877783004, pp: 543.
- Hameed, S.A., 2011. Effect of internet drawbacks on moral and social values of users in education. *Aus. J. Basic Applied Sci.*, 5: 372-380.
- Hesson, M., 2006. Computer simulator: An Educational tool for computer architecture. *Am. J. Applied Sci.*, 3: 2114-2121. DOI: 10.3844/ajassp.2006.2114.2121
- Karpudewan, M., Z.H. Ismail and N. Mohamed, 2011. Green chemistry: Educating prospective science teachers in education for sustainable development at school of educational studies, USM. *J. Soc. Sci.*, 7: 42-50. DOI: 10.3844/jssp.2011.42.50
- Kumar, N., R.C. Rose and J.L. D'Silva, 2008. A review on factors impinges computer usage in education. *J. Soc. Sci.*, 4: 146-157. DOI: 10.3844/jssp.2008.146.157
- Romisowski, A.J., 1992. The Selection and use of Instructional Media. 2nd Edn., Kogan, New York, ISBN: 0893973769, pp: 396.
- Yaakob, N.R.N., 2007. Penguasaan jawi dan hubungannya dengan minat dan pencapaian pelajar dalam pendidikan Islam. *J. Pendidik Pendidikan*, Jil., 22: 161-172.