

A Survey of the Application of Multimedia in the Process of Teaching and Learning in KUiTTHO, Malaysia

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Abstract: Scientific research shows that the process of remembering done in the human brain is faster when people receive many emphasizes in various forms for a short period. The concept of interactivity in multimedia helps the human brain to improve the process of learning. In addition, different approaches of multimedia make lessons very entertaining besides giving information more effectively and faster. The use of the multimedia in the process of teaching and learning is expanding in the universities in Malaysia. However, problems will occur if the contents do not fulfill the standard curriculum, the approaches do not help the process of teaching and learning and so on. Hence, this study was conducted with the purpose of obtaining the feedback from the students regarding the use of multimedia in the process of teaching and learning. The objective of this study was to determine whether the subject content presented in multimedia in KUiTTHO fulfilled the curriculum requirement, and whether the applicaton of multimedia in the process of teaching and learning was effective and acceptable by the students. The final semester postgraduate students from Technical Education Faculty in KUiTTHO, Malaysia were selected as the research samples. The research design used was of survey descriptive. Qualitative data was collected from the students using questionnaires. The data was analyzed to obtain the percentage, mean, and standard deviation.

Research findings showed that the respondents agreed that the level of the content that was presented by using multimedia in the process of teaching and learning was high. The level of the implementation of the multimedia was also high. The level of user-friendliness of the software was also high. Overall, the students agreed on the usefulness of the application of multimedia in the process of teaching and learning. Besides that, they felt that the application of multimedia also made the lessons more interesting and helped them to understand the lessons better. In addition, they agreed that the use of multimedia was able to motivate them to focus on the lessons. However, majority of the students wanted more examples that would relate to the real world and the presentation should have more simulation, illustration and be better graphic.

Key words: multimedia teaching learning Malaysia

1. Introduction

The Ministry of Education in Malaysia makes steps to emphasize and improve the technical and vocational education by increasing the budget for this department in the 8th Malaysian Planning. In the process of teaching and learning, especially in the technical and vocational education, the use of the appropriate teaching material or method is needed to make the lesson more interesting. Computer is used as a tool to help and simplify the process of teaching and learning. Scientific research shows that the process of remembering done in the human brain is

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faster when people receive many emphasizes in various form for a short period (Ellington, Percival and Race, 1993, in Zuraida, 2003). The concept of interactivity in multimedia helps the human brain to improve the process of learning. In addition, different approaches of multimedia make lessons very entertaining besides giving information more effectively and faster. The use of the multimedia in the process of teaching and learning is expanding in the universities in Malaysia. However, problem will occur if the contents do not fulfill the standard curriculum, the approaches do not help the process of teaching and learning and so on. In a research where an experimental group studied Macbeth in an independent, constructivist setting using multimedia; the control group studied traditionally. The finding was that the students were most successful when the teacher was actively involved, regardless of the technology (Perry, 2003).

Thus, this research aims to obtain the feedback from the students regarding the use of multimedia in the process of teaching and learning whether it is needed and presentable in KUITTHO. The objectives of this research are as follows:

1. To determine whether the subject content presented using multimedia in KUITTHO fulfilled the curriculum requirement;
2. To determine whether the applicaton of multimedia in the process of teaching and learning is effective;
3. To determine whether the software or the multimedia is user friendly and acceptable by the students.

The feedback and comments from the students will help the lecturers to improve or change the multimedia that they used. The improve presentation will certainly benefit the students.

2. Literature Review

Education using multimedia is one of the methods that are now being focused in the process of teaching and learning. The application of multimedia in the present education as teaching material cannot be denied (Kamarul Arrifin, 2000 in Mohd Zaim, 2003). Norhashim et al (1996) in Hasmains (2003) says that there are three fuctions of multimedia in the process of teaching and learning which are as reference, supervisor and facilitator. Diana Laurillard (1992) in Zuraida (2003) says that learning through multimedia helps to increase the theoretical concept. Gould Marks (1966) in Hasyimunfazlie (2002) says that about 10-15% knowledge received through reading, 20-25% through listening, 30-35% through seeing while 50% knowledge received through the combination of hearing and seeing. According to Yusup (1998) in Hasmains (2003), multimedia should be used in education because in education three main aspects are being emphasized: cognitive, affective and psychomotor.

3. Research Method

The research design used is of survey descriptive. Qualitative data was collected from the students using questionnaires. Likert scale was used as a form of measurement. The population for this research consisted of all the Education Master students from the Technical Education Faculty, KUITTHO. The sample group was all the final year Education master students. In this research, the research instruments were the questionnaires. Researchers designed questionnaires which consisted of 27 questions for the respondents to answer. Before the questionnaires were given to the respondents, a pioneer test was done where ten education master students were randomly selected to answer the questionnaires. The result from the pioneer test was 0.8585 where according to Mohd Najib (1999) if the *Alpha-Cronbach* value is above 0.8, it means the validity is very high. The questionnaires were divided into five main sections which are as follows:

Table 1 Main Sections

Section	Item No.	Data Analysis Method
A : Background	1 – 3	Percentage
B : Content	1 – 9	Score mean and std dev

C : Effectiveness	1 – 9	Score mean and std dev
D : User Friendly	1 – 9	Score mean and std dev
E : Suggestions and comments		

In Section B, C and D, there are five levels of agreement.

4. Data Analysis

In Section B, C and D, data was analyzed in quantitative method form. Researchers analyzed data through mean score based on the table which was adapted from Lendell (1997) in Mohd Najib (1999) as follows:

Table 2 Mean Score

Mean Score Interval	Interpretation	Level
1.00 – 2.49	Do not agree	Low
– 3.49	Not totally agree	Average
3.50 – 5.00	Agree	High

Respondents consisted of one hundred final semester education master students from the population of all the education master students in Technology University College Tun Hussein Onn (KUiTTHO). It consisted of 43 males and 57 females. In section B, the researchers wanted to survey the students' respond towards the contents of the multimedia. There were nine items with overall value of the mean score of 3.81 ($\sigma = 0.571$). In section C, the researchers wanted to survey the students' respond whether the applicaton of multimedia in the process of teaching and learning was applicable and effective. There were nine items with overall value of the mean score of 3.72 ($\sigma = 0.778$). In section D, the researchers wanted to survey the students' respond whether the software or the multimedia was user friendly. There are 9 items with overall value of the mean score of 3.74 ($\sigma = 0.627$).

5. Conclusion

Research finding showed that the respondents agreed that the level of the content that was presented by using multimedia in the process of teaching and learning was high. The level of the implementation of the multimedia was also high. Overall, the students agreed on the usefulness of the application of multimedia in the process of teaching and learning. The level of user-friendliness of the software was also high. Besides that, they felt that the application of multimedia also made the lessons more interesting and helped them to understand the lessons better. The application of multimedia using simulation, illustration with video attracted their attention during lesson. In addition, they agreed that the use of multimedia was able to motivate them to focus on the lessons. However, majority of the students wanted more examples that related to the real world and the presentation should have more simulation, illustration and be better graphic. They felt that interactivities should be added more so that the information would be received faster.

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