THE ROLE OF TEACHING TOOLS AND ITS' EFFECTIVITY CONCERNING STUDENT'S LEARNING INTEREST IN ECONOMIC FACULTY AND BUSINESS MANAGEMENT FACULTY AT WIDYATAMA UNIVERSITY

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Abstract

Teaching tools is a component in learning methodology, which can improve the quality of learning process and the result itself. Teaching tools that are used at Widyatama University consist of conventional media; those are whiteboard with marker, overhead projector (OHP) and multimedia such as LCD Projector. This research conducted at Economic Faculty and Management Business Faculty at Widyatama are by interview and questionnaire. The subject of samples were 6 lecturers and 150 students who were joining the lecture with those six lecturers. The research showed that teaching tools influence the students' learning interest 0.508. The effectiveness of teaching tools’ used was measured by the graduation percentage and identification of the highest scores of the students. The result of this research showed which tool was the most effective and interesting for students during their study. It showed the probability of using other information technology based on teaching tools such as the internet and other multimedia to reach the best in learning process quality and result in the future.

Keywords: teaching tools, students’ learning interest, and multimedia.

Introduction

Learning process is an activity to apply the education institution curriculum in order to influence the students to reach the destined education objectives. The education objective is to facilitate the students towards behavior changes in the intellectuality, morality and sociality of the students, so that they will be able to be an independent individual and social people. In order to reach the objective the students have to interact with their education environment that set up by the lecturers through a learning process.

The education environment that set up by the lecturer includes the learning objective, learning subject, learning methodology, and learning valuation. They are known as the teaching components. The learning objective is the ability that has earned by the students after they do all their learning experiment at the end of the education.
Teaching subject is a set of science subject that consists of facts, concepts, principal, and generalization of science with the curriculum as the source and the achievement of the learning objectives. Teaching methodology is methods and techniques used by the lecturer/teacher in interacting with the students in order to transfer the subject to the students, so that they master the learning objectives.

From the description above, we conclude that the position of teaching tools as a helpful tool in teaching is one of the methodology component, as one of the education environment set by the lecturer.

The media is anything that can used to transfer the message. Teaching is a communication process. As a communication process, there are source of message (lecturer), receiver of the message (student) and the message itself that is the subject from the curriculum. The source of the message has to do an encoding; those are translating the idea, thinking, feeling and the message in the form of certain symbols. The symbols can be a language, codes and pictures. In doing the encoding, a teacher has to pay attention to the background of the receiver of the message, so that the message will be easily receive by the students. As for the receiver of the message has to do the decoding, that is to think of those symbols which consist of message. If the message/meaning that is receive by the receiver of the message (students) almost has the same message/meaning that is intend by the source of the message, we can say that the communication is effective.

Media can help lecturer to deliver the message. The better the media, the less the disturbance/distortion, and the better the message received by the students. Media can be use in two ways, one is as a helpful tool (dependent media) and the other is something that is use by the student himself (independent media). The considerations to choose the suitable media are:

a. The learning objectives to be achieved
b. Students characteristics
c. Media characteristics
d. Time allocation
e. Availability
f. Compatibility (in accordance with norms)
g. Cost
h. Technical quality
i. Artistic

Teaching tools classification:

a. Audio media
b. Visual media
c. Audio visual media
d. Other media:
   1. White board
   2. Three dimension media
   3. Show techniques media
   4. Learning source from society
   5. Programmed learning
   6. Computer
The data shows that students who use internet in lecture class/assignment in Widyatama University are less than 40%. It does not mean that students are not familiar in using the internet, but merely because they use internet not for study but for entertainment. Compare to the report published by the national center for education national studies in 2003, about 90% of American children and teenagers, ages 5 to 17 used computers in 2001, with almost 60% using the internet. By the time, they reach high school; nearly three quarters of American students are online. Used of computers and the internet in educational setting has increased significantly since the early 1980s century. In 1984, there are 27% of students from elementary schools through college used computers in school. In 1989, there are 43% of students used computers at school and 1997 the number has reach 69% of students reported using computers in their classes. According to a 2002 study on internet used by college students conducted by the pew internet project, there are 25% of college students were introduce to computers by the time they were 8 years old, and all were using computers by the time they turned 18 years old. The vast majority (86%) of college students used the internet, compared to nearly 60% of the general US.

Value and Benefit of Teaching Tools

Teaching tools can improve the students learning process in their study so the education result they can achieve in the end of their semester will be higher. There are some reasons why teaching tools can improve the students learning process. The reasons in related to the benefit of teaching tools in the students’ learning process, such as:

a. The teaching process will be more interesting for the students that could raise the motivation of study.

b. Subject matters will be more understandable so that the student’s knowledge will be better and enable the students to master the learning objectives.

c. Teaching methods will have more variations, not only verbal communication through words from the teacher but through the other media, so that the students will not get bored and the teacher will not run out of energy, especially when teacher teach on every study hour.

d. Students have more learning activities; they are not only listening to the teacher's description, but also have other activities, such as watching, demonstrating, etc.

The other reasons why the teaching tools can improve the process and the result of learning is the students learning activity will be more and deeper concerning the students’ level of thinking. People's level of thinking follows the development from the factual thinking to the abstract thinking, starting from the simple thinking to the complex thinking. The use of teaching tools has a tight connection with those thinking levels because teaching tools not only could bring the abstract matters to reality but also could simplify complex matters.
As an example, the use of a globe in learning geography is simplicity and brings the reality of the geographical concept, so that can be learning in real and clear physics. In addition, by using of diagram will describe the connection and route of the electrical bell or the sound of a radio. They are only pictures but very effective to simplify the abstract concept in easier way to be studied by the students.

The research had concluded that the process and the results of the students showed a significant differentiation between with and without teaching tools. That is why teaching tools in teaching process is widely advised to higher the teaching quality.

**Teaching Tools**

There are some kinds of teaching tools, which usually used in teaching process. First, graphic media such as picture, photo, graphics, diagram, poster, cartoon, comics, etc. Graphic media known as two dimension media that is the media, which has long and wide measure. Second, three dimension media that is in the form of model, as in solid model. Third are projection media such as slide, filmstrips, overhead projector, etc. The fourth is the use of environment as the teaching tools.

The benefit to use the overhead projector in teaching is to keep the direct communication (face to face) so that teacher can easily to control the students’ mood during lesson. Easy to use and practical because it can also be use in a bright condition, fit to any room space, have a variety in serving to avoid boredom.

However, this kind tool also has a weakness, for example it require the certain hard tool to projecting the message or subject on the transparent sheet in the overhead projector.

Providing handouts and other subject materials online in advance can also improve class discussion and make class time allocation to be more effective. Materials using graphics, video, audio streaming, and online simulations can be the supplement of the traditional class contents and vastly improve the visual learning. In addition to supply students their preferred learning styles, the use of technology will encourage students to use different learning styles and learning skills. For example, by implementing the printed materials, some graphics and the other experiments components used in the teaching process.

**Problems**

Students who should have graduated still outnumber the new students. At Business Management Faculty the number of students from 2002 and before who should have been graduate in 2007 is 553 students (equals to 29.10% of active students), meanwhile, the new students from 2006 for Strata-1 program is 293 students (15.46% of the total active students). This condition means there are stocks of old students because of the low degree of graduation in subject. This means the teaching-learning process has not yet effective, the teaching methodology
is still conventional and the academic atmosphere may not less suitable to support the teaching-learning process. This research was only focus on the influence and effectiveness of teaching tools to students’ learning interest.

Methodology

- The most-used teaching tools used by the lecturers at Economic and Management Business Faculty:
  - Whiteboard and marker
  - LCD projector
  - Overhead projector
- The research correlated the influence of teaching tools to the students’ learning interest. The learning interest variables used are:
  - The level of student attendance in class
  - The frequency of question & answer activity in class
- The sample consists of 150 students with six lecturers and six subjects. Three lecturers teach in Economic Faculty and the others teach in Management Business Faculty. The criteria of the six lecturers are level of education, job assignment and has the same experience (in roughly).
- The research measured the Economic Faculty and Management Business Faculty students at Widyatama University who had been choose by qualitative and quantitative subject with the teaching tools as follow:
  - The qualitative subjects are:
    - Entrepreneurship
    - Business Law
    - Research Methodology
  - The quantitative subjects are:
    - Financial Management
    - Intermediate Accounting I
    - Intermediate Accounting II
- The effectiveness of teaching tools’ that used was measure by the graduation percentage and identification of the highest scores of the students.
- This research is limited to measure the relation between the using of teaching tools and students’ learning interest, and this research is only a preliminary research.
Findings

### Table 1

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Media</th>
<th>Student Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman’s rho</td>
<td>Media Correlation</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Coefficient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>150</td>
</tr>
<tr>
<td>Student Interest</td>
<td>Correlation Coefficient</td>
<td>.508**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>150</td>
</tr>
</tbody>
</table>

** : Correlation is significant at the 0.01 level (2-tailed)

The influence of teaching tools to students’ learning interest shown by the result of statistics data was 0.508. It shows that:

1. The correlation is positive, meaning the more lecturer use technology based teaching tools the higher the students’ learning interest level and vice versa
   - the correlation value > 0.5 meaning teaching tools variable has strong correlation with students’ learning interest

2. The result of correlation significant Hypothesis:
   - $H_0 =$ There is no correlation between the two variables
   - $H_1 =$ There is a correlation between the two variables

The verification were for 2 sides
Base on decision making (based on probability):
- If the probability > 0.05 (or 0.01) $H_0$ accepted
- If the probability < 0.05 (or 0.01) $H_0$ rejected

Note: 0.05 or 0.01 depend on the choosing

Decision:
Because all the probability value is 0.000, so all variables are actually correlated. This also shown by the mark ** on the correlation value, which means the correlation is significant.
From the questioner result:

- More than 80% lecturers in Economic Faculty and Business Management Faculty at Widyatama University still use conventional media. It was proven that lecturers rarely give internet-use relation in their assignments for students.
  
  Table 2 shows that:
  
  - About 92% of Widyatama students are familiar in using internet but not for study matters.
  - The effectiveness of teaching tools were measured by the graduation percentage as follow:

  **Table 2**
  
  **The Effectiveness of Teaching Tools**

<table>
<thead>
<tr>
<th>Lecturer Code</th>
<th>Qualitative Subject</th>
<th>Quantitative Subject</th>
<th>Dominant teaching tools used</th>
<th>Graduation percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZG</td>
<td>Research methodology</td>
<td>LCD projector</td>
<td>81.37% mostly got B score</td>
<td></td>
</tr>
<tr>
<td>JM</td>
<td>Entrepreneurship</td>
<td>White board</td>
<td>41.10% mostly got B score</td>
<td></td>
</tr>
<tr>
<td>NN</td>
<td>Business Law</td>
<td>Overhead projector</td>
<td>67.63% mostly got C score</td>
<td></td>
</tr>
<tr>
<td>TL</td>
<td>Financial management</td>
<td>White board</td>
<td>55.92% mostly got C score</td>
<td></td>
</tr>
<tr>
<td>RA</td>
<td>Financial Accounting I</td>
<td>Overhead projector</td>
<td>49.93% mostly got B score</td>
<td></td>
</tr>
<tr>
<td>RW</td>
<td>Financial Accounting II</td>
<td>LCD projector</td>
<td>60.10% mostly got B score</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows that the graduation percentage of the students based on teaching tools. The lecturers who has been also using LCD projector as their tools give the highest graduation percentage by 81.37% of students with major by B score. Table 2 also shows the fact that the lecturers who provide quantitative materials subject using LCD projector had lower result (60.10%) compare to the lecturer who provide qualitative materials subject.

The result also consistent with the questionnaire results from 150 students. The students want the lecturer to teach by solving the calculation example in the whiteboard rather than using LCD projector as a passive communication. Questionnaire said that this method would give the better result to the students.

The graduation percentage not only depend on teaching tools but also depend on other variables, such as the lecturer (the personality, education degree, experience), the students (passing grade when entering the university, study motivation) and the availability of supporting infrastructure at the campus.
Conclusions

Teaching tools influence the students’ learning interest at Widyatama University by 0.508 degree of significance, so that with the use of interesting teaching tools the students will be able to improve the quality of teaching and higher graduation rate. This number shows a significant influence of teaching tools to the students’ learning interest. Therefore, to motivate the students, the university should consider providing the best teaching tools, which are most liked by the student, that is multimedia tools.

The graduation percentage of students who was taught by conventional media is in the range of 60% to 70% in the past years. This means that the lecturer factor is more significant than the teaching tools, but recently that number tends to reduce to 50% and the teaching tools has prove that they also could give the better contribution related to the graduation percentage of the students.

Students of Widyatama University are familiar in using the internet but not for study or for fulfilling academic needs, that is why they need multimedia based on information technology as teaching learning tools.

Table 2 shows that the lecturer who used LCD projector and overhead projector have highest level of students’ graduation with the score B. This result leads the Economic Faculty and Business Management Faculty to provide multimedia teaching tools based on technology information in the future.

Although Table 2 shows that the multimedia tools could boost the graduation by 50.8% of significant value at Widyatama University but the number is only a transient number. There are some inventions based on multimedia technology, which used by the lecturers and the students in the way to improve their study result, but the questionnaire said that they need more interaction to the lecturer in quantitative subjects. This fact clearly proves that the lecturer contribution cannot replace by the tools. On the other hand, the tools are very important to support and to improve the communication process in the teaching-learning process.
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