The Effectiveness of Public Speaking Learning Media Based on Digital Multimodal in Indonesian Language Courses at Politeknik Pariwisata Medan

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Abstract

Digital media or often referred to as new media (new digital media) is an electronic media stored in digital format (as opposed to analog format) which can be used as storage, transmit, and receive digitalized information. Digital media is the internet-based media using computers and sophisticated mobile phones. Digital media as internet-based media has the characteristics of (1) computer-based technology; (2) its characteristics are hybrid, not dedicated, flexible; (3) interactive potential; (4) public and private functions; (5) non-strict regulations; (6) interrelation; (7) ubiquitous/independent of location; (8) can be accessed by individuals as communicators. (4) public and private functions; (5) non-strict regulations; (6) interrelation; (7) ubiquitous/independent of location; (8) can be accessed by individuals as communicators. (4) public and private functions; (5) non-strict regulations; (6) interrelation; (7) ubiquitous/independent of location; (8) can be accessed by individuals as communicators. This development research will be carried out at the Medan Tourism Polytechnic which is located at Jalan Rumah Sakit Haji No. 12, Kenanga Baru, Percut Sei Tuan District, and Deliserdang Regency. This Polytechnic has seven Study Programs, namely one Diploma 4 (D-4) Study Program and six Diploma 3 (D-3) Study Programs. The seven study programs are (1) D-4 Hospitality Management, (2) D-3 Room Division Management, (3) D-3 Food Management Management, (4) D-3 Catering Management, (5) D-3 Patiseri Management, (6) Tourism Planning and Marketing Management, and (7) D-3 Travel Tour. This digital multimodal-based public speaking learning media is very effective to use to improve learning outcomes. The learning outcomes after applying this product were at an average of 89.68%, meanwhile the learning outcomes before the application of learning media were at an average (55.93%).

I. Introduction

The role of the media in learning is not in doubt. A number of studies have shown that learning media has a significant effect in increasing motivation or interest, processes or activities, and learning outcomes. This can be seen, for example in Zabir's (2017) research which found that learning media affects learning motivation (students of SMPN 1 Lanrisang, Pinrang Regency). This influence is very high, especially in aspects (1) an attractive desire to learn, (2) motivation and need in learning, and (3) a conducive environment. Furthermore,
related to the learning process or activity, the research results of Novalia, Ali Karim, and Efendi (2016) found that there was an increase in the process or activity of students in learning speaking skills. This process can be seen from the comparison between cycle I (being in the very poor category) and cycle II (being in the good category). Next, related to the influence of media on improving learning outcomes, Aisah (2010) reported that there was a significant (positive) influence of media on learning outcomes (MAN Lhokseumawe Students). In fact, Aisah emphasized in her research that if the use of media tends to be good, student learning outcomes will be good; on the other hand, if the use of the media is not good enough, the learning outcomes will be poor (low). Aisah emphasized in her research that if the use of media tends to be good, student learning outcomes will be good; on the other hand, if the use of the media is not good enough, the learning outcomes will be poor (low). Aisah emphasized in her research that if the use of media tends to be good, student learning outcomes will be good; on the other hand, if the use of the media is not good enough, the learning outcomes will be poor (low).

The effectiveness and influence of the media in increasing motivation, processes, and learning outcomes does not mean that all media can be used for all learning materials. For this reason, the media used must consider a number of things: (1) its suitability with the objectives to be achieved, (2) its accuracy to support learning content - facts, concepts, principles, or generalizations -, (3) practicality, flexibility, and sustainability, (4) skills to use it, (5) grouping targets, and (6) technical quality (Azhar, 2013: 74).

In learning, the media acts as an introduction, facilitates, attracts attention, streamlines time, increases participant involvement, opens space for learning anywhere and anytime, and accelerates and makes it easier to achieve goals. Ideally, the roles of the media have been carried out, but in reality - based on the survey results - have not been fully realized. In fact, the era of technology, communication and information or the current digital era allows the media to play optimally.

Learning that boils down to mastering complete knowledge and skills, for example learning public speaking, requires appropriate learning media. One of the appropriate learning media fulfilling the above roles is digital media.

Digital media or often referred to as new media (new digital media) is an electronic media stored in digital format (as opposed to analog format) which can be used as storage, transmit, and receive digitalized information. Digital media can also be said to be internet-based media using computers and sophisticated mobile phones. The two main forces of his early change were satellite communications and the use of computers. The key to the great power of computers as a communication machine lies in the digitization process that allows all forms of information to be carried efficiently and mingle with each other (Carey in McQuail, 2011: 43). Digital media is media whose content is in the form of a combination of data, text, voice, and various types of images that are stored in digital format and disseminated via optical broadband cable-based networks, satellite, and microwave systems (Flew, 2008: 2-3). Digital media as internet-based media has the characteristics of (1) computer-based technology; (2) its characteristics are hybrid, not dedicated, flexible; (3) interactive potential; (4) public and private functions; (5) non-strict regulations; (6) interrelation; (7) ubiquitous / independent of location; (8) can be accessed by individuals as communicators. (4) public and private functions; (5) non-strict regulations; (6) interrelation; (7) ubiquitous / independent of location; (8) can be accessed by individuals as communicators. (4) public and private functions; (5) non-strict regulations; (6) interrelation; (7) ubiquitous / independent of location; (8) can be accessed by individuals as communicators.
II. Review of Literatures

2.1 Learning Media

As a very important tool in the learning process, learning media has a very broad scope. According to Wulandari (2020) the use of an appropriate model will be able to provide improvement in learning. Media can include humans, materials or studies that build conditions so that students are able to acquire knowledge, attitudes, and skills (Gerlach & Ely in Azhar, 2011). Prasasti (2019) states that media is a word derived from the Latin medius, which literally means middle, intermediary, or introduction. Furthermore, Sadiman, et al. (2006: 7) states that the media is an intermediary or messenger of messages from senders to message recipients; These media can stimulate thoughts, feelings, and interests, as well as the attention of learners so that the learning process occurs. Related to that, in essence, the media is a means that can expand the human ability to hear, see within the boundaries of distance, space and time. Gagne “and Briggs (in Azhar Arsyad, 2006: 4) implicitly saying that learning media includes tools that are physically used to convey the content of teaching material so that the media can be in the form of; among others, books, tapes, video cameras, films, slides (frame pictures), photos, pictures, graphics, television, and computers. If the media carries instructional learning messages, the media is called learning media.

The Educational Technology and Communication Association limits the media as any form and channel through which people transmit messages or information.

From the above definitions it can be concluded that the notion of learning media is anything that can be used to transmit learning messages from message senders to message recipients and can generate understanding and interest in learning, so that the learning process can run effectively and efficiently in achieving goals. education.

Based on the description above, it can be said that learning media is a medium that allows interaction between lecturers and students. For example, when students watch instructional television programs, educational films, radio, and so on, the media plays a role in helping these students. In addition, to create a conducive learning process, learning media is needed to create better patterns of interaction between students and lecturers. The development of learning patterns and the role of the media as a learning resource can be seen in the picture below.

![Figure 1. Traditional Learning Patterns (Dharma, 2012)](https://example.com)

Figure 1 above shows traditional learning patterns because lecturers are one of the learning resources. Then, the influence of the systems approach encourages the use of media as an integral part of learning. The learning program is planned based on the needs and characteristics of students, and is directed at changing the behavior of students in accordance with the goals to be achieved.

It cannot be denied that the advancement of science and technology has implications in the field of knowledge, so that a new system is needed to communicate all kinds of knowledge and messages, both verbally and nonverbally. In this context, the media is no longer seen as the result of human knowledge, but, on the one hand, the media is also a
means of communicating knowledge and skills and on the other the media as a means of developing new knowledge, skills and techniques. Learning resources in the form of media are designed by learning media experts to interact with students indirectly. Lecturers and media experts interact with students based on a shared responsibility.

The increasing need for learning activities, both quantitatively and qualitatively, the more lack of teaching staff is felt so that the presence of lecturers in class can be replaced by the media they create. In this process, apart from being educators and material experts, lecturers also have the skills to develop the media itself without being collaboratively with media experts.

The learning media places an important position as a component of the learning system. Without media, communication will not occur and learning as a form of communication will not take place optimally. Learning media is a teaching aid that influences the climate, conditions and learning environment created by the lecturers. The use of media in learning really helps improve the effectiveness of the learning process and the delivery of messages and lessons at this time.

2.2 Digital Multimodal Based Learning Media

The development of science, knowledge, technology, and communication affects the development of learning, including the development of learning technology. The development of learning technology is a demand for the very rapid development of education or learning. The rapid development is marked by, among other things, digital learning.

According to Munir (2017: 4), digital learning is a system that can facilitate learners to learn more broadly, more and more differently. Through the facilities provided by the system, learners can learn anytime and anywhere, without being limited by distance, space and time. The learning material being studied is also more varied; not only in the verbal form, but in other forms that are more varied, such as text, visuals, audio and motion.

Digital learning requires learners and teachers to communicate interactively by utilizing information and communication technology, such as computer media with the internet, mobile phones with various applications, video, telephone or, facsimile. The use of this media depends on the structure of the learning material and the types of communication required. Conversation transcripts, sample information, and digitally linked written documents or website lessons showing full text examples are typical ways of the importance of digitally documented learning materials. The dominant visual communication includes pictures on the whiteboard, which are sometimes accompanied by conversation sessions, and video conferencing, enabling learners to use different media.

Digital learning applies a web-based or digital learning system. Digital learning begins with good planning. Furthermore, the learning material delivered (delivery content) to learners must refer to this plan.

A teacher in digital learning must have sufficient competence. These competencies include competence in planning and organizing learning, presentation skills - verbal and nonverbal -, teamwork, questioning skills and strategies, expertise in mastery of learning materials, involving learners in learning and coordinating learning activities, knowledge of learning theory, knowledge of learning, digital, knowledge about lesson planning, and mastery of learning media.

Digital learning applies a learning system that does not take place in one place so that there is no face-to-face interaction between teachers and learners. The interaction between teachers and learners can be done, either in the form of realtime (real time) or arealtime (not real). Interaction in the form of realtime (synchronous) that can be done,
among others, direct interaction or online meetings (online meetings), real audio or real video, and chatrooms, while interaction that isal time (asynchronous) can be done by mailing lists, discussion groups, news groups, and bulletin boards. Real time and areal time require interaction between teacher and learner that can replace direct face-to-face interaction, although not completely.

2.3 Public Speaking

Public speaking activities or what is commonly known as public speaking can be scary things and can also be fun (even very fun). When speaking in public, all the attention (eyes) of the listener or audience seemed to be judging the speaker like a defendant in a court. This shows that the speaker becomes the center of attention and determines the success of the speaking activity. For this reason, everyone is required to be able to speak in public, especially for people who often interact and interact with other people. Thus, they should have public speaking skills because at a certain time a person will be faced with a condition that he must speak in front of a crowd to convey messages, ideas, ideas, questions,

Related to this public speaking, some people think that public speaking is only able to be done by a small number of people because people who are able to speak in public need extraordinary talents. In fact, basically speaking we have been doing since we were children. Apart from that, speaking is also a daily activity for everyone. However, it is realized that in reality, speaking in public is not an easy thing to do.

Virtually everyone can speak, but not everyone has good public speaking skills. That is, someone who is skilled at public speaking is someone who is able to speak fluently, attract attention, and hypnotize listeners. When talking, things that are often experienced by many puppets are feelings of nervousness, nervousness, trembling so that they are not concentrated and confused when dealing with people. In fact, public speaking skills must be owned by everyone.

III. Research Methods

This development research will be carried out at the Medan Tourism Polytechnic which is located at Jalan Rumah Sakit Haji No. 12, Kenanga Baru, Percut Sei Tuan District, Deliserdang Regency. This Polytechnic has seven Study Programs, namely one Diploma 4 (D-4) Study Program and six Diploma 3 (D-3) Study Programs. The seven study programs are (1) D-4 Hospitality Management, (2) D-3 Room Division Management, (3) D-3 Food Management Management, (4) D-3 Catering Management, (5) D-3 Patiseri Management, (6) Tourism Planning and Marketing Management, and (7) D-3 Travel Tour.

The Medan Tourism Polytechnic was chosen as a research location based on the following considerations: (1) this institution is very likely to be used as a research place considering that the facilities and infrastructure, especially internet access are adequate, (2) the use of the internet in lectures is not optimal because the media, models, strategies, and the teaching materials used tend to be manual, (3) the students on this campus are digitally literate, making it easier to interact using digital media, (4) research that examines the same problem has never been done in this place.

In terms of time, this research was conducted in the odd semester of the 2020/2021 academic year, at the 3rd to 6th meeting, according to the RPS that had been compiled by
the Indonesian language lecturer, Drs. Muhammad Yunus, M.Hum. Lecture activities are
directly related to Public Speaking material.
Research on the development of digital multimodal-based public speaking
instructional media uses research and development. In its work, this development research
has procedures (1) product development, (2) product development procedures, and (3)
product testing. The development research model used in this research is the education
development model of Borg and Gall (Tegeh et al., 2014: 7) which has been developed
into 10 stages.

IV. Discussion

Multimodal-based digital media in public speaking learning is declared effective
after field trials and effectiveness tests have been carried out. The effectiveness of the
media can be seen from the differences in learning outcomes between students before
using multimodal-based digital media with student learning outcomes using multimodal-
based digital media and the achievement of competency goals demanded in RPS.
Student learning outcomes are data obtained from giving tests through pretest and
posttest. Pretest is given to students before implementing this development product
(multimodal based media), while posttest is given to students after being given the product
of this development (media). The trial was carried out in one study group (class), totaling
32 students. The assessment of public speaking learning outcomes is shown in table 4:11
below.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject (Student)</th>
<th>Score Before (Pretest)</th>
<th>Value After (Postest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mhs-001</td>
<td>65</td>
<td>95</td>
</tr>
<tr>
<td>2.</td>
<td>Mhs-002</td>
<td>55</td>
<td>90</td>
</tr>
<tr>
<td>3.</td>
<td>Mhs-003</td>
<td>70</td>
<td>95</td>
</tr>
<tr>
<td>4.</td>
<td>Mhs-004</td>
<td>55</td>
<td>90</td>
</tr>
<tr>
<td>5.</td>
<td>Mhs-005</td>
<td>65</td>
<td>80</td>
</tr>
<tr>
<td>6.</td>
<td>Mhs-006</td>
<td>55</td>
<td>95</td>
</tr>
<tr>
<td>7.</td>
<td>Mhs-007</td>
<td>65</td>
<td>95</td>
</tr>
<tr>
<td>8.</td>
<td>Mhs-008</td>
<td>50</td>
<td>90</td>
</tr>
<tr>
<td>9.</td>
<td>Mhs-009</td>
<td>55</td>
<td>88</td>
</tr>
<tr>
<td>10.</td>
<td>Mhs-010</td>
<td>65</td>
<td>89</td>
</tr>
<tr>
<td>11.</td>
<td>Mhs-011</td>
<td>60</td>
<td>88</td>
</tr>
<tr>
<td>12.</td>
<td>Mhs-012</td>
<td>50</td>
<td>90</td>
</tr>
<tr>
<td>13.</td>
<td>Mhs-013</td>
<td>50</td>
<td>90</td>
</tr>
<tr>
<td>14.</td>
<td>Mhs-014</td>
<td>60</td>
<td>90</td>
</tr>
<tr>
<td>15.</td>
<td>Mhs-015</td>
<td>70</td>
<td>90</td>
</tr>
<tr>
<td>16.</td>
<td>Mhs-016</td>
<td>55</td>
<td>90</td>
</tr>
<tr>
<td>17.</td>
<td>Mhs-017</td>
<td>60</td>
<td>85</td>
</tr>
<tr>
<td>18.</td>
<td>Mhs-018</td>
<td>55</td>
<td>90</td>
</tr>
</tbody>
</table>
Table 2 above shows five things, as presented in the following description.

1. The average value (mean) of student learning outcomes before the implementation of multimodal-based digital learning media was 55.93, while the learning outcomes after implementing multimodal-based digital media were 89.68.

2. There was an increase in student learning outcomes after the application of multimodal-based digital media with a difference of 33.75 (range 55.99-89.68).

3. The lowest score obtained by students at the time of the pretest is 45 and the highest score is 70.

4. The lowest score obtained by students after the implementation of multimodal-based digital media was 75, while the highest score was 95.

Based on the description above, the value ranges are calculated to determine the number of classes and class lengths (intervals). The process and results of these calculations are shown in the description below.

a) Range of pretest scores = highest score - lowest score
   = 70 - 45
   = 25

b) Range of posttest scores = highest value - lowest value
   = 95 - 75
   = 20

c) Many classes = 1 + 3.3 log n
   = 1 + 3.3 log 32
   = 5.96 (many classes = 6)

d) Pretest interval class length = = = 4.16 = 3 \frac{Range}{Total of Class} = 25

  \[ \frac{25}{6} \]

e) Post-test interval class length = = = 3.3 = 3 \frac{Range}{Total of Class} = 20

  \[ \frac{20}{6} \]
The results of the above calculations are used to determine the frequency distribution of the results of learning public speaking using digital multimodal-based media. Based on the calculations above, the learning outcomes can be tabled, as shown below.

### Table 3. Distribution of Frequency of Public Speaking Learning Outcomes through Pretest and Posttest

<table>
<thead>
<tr>
<th>Interval</th>
<th>Pretest Frequency</th>
<th>Pretest Percentage</th>
<th>Interval</th>
<th>Posttest Frequency</th>
<th>Posttest Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>45-49</td>
<td>2</td>
<td>6.25%</td>
<td>74-77</td>
<td>1</td>
<td>3.1%</td>
</tr>
<tr>
<td>50-54</td>
<td>3</td>
<td>9.38%</td>
<td>78-81</td>
<td>5</td>
<td>15.6%</td>
</tr>
<tr>
<td>55-59</td>
<td>11</td>
<td>34.3%</td>
<td>82-85</td>
<td>9</td>
<td>28.1%</td>
</tr>
<tr>
<td>60-64</td>
<td>4</td>
<td>12.5%</td>
<td>86-89</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>65-69</td>
<td>9</td>
<td>28.1%</td>
<td>90-93</td>
<td>12</td>
<td>37.5%</td>
</tr>
<tr>
<td>70-74</td>
<td>3</td>
<td>9.3%</td>
<td>94-97</td>
<td>5</td>
<td>15.6%</td>
</tr>
<tr>
<td>Σ</td>
<td>32</td>
<td>100%</td>
<td>Σ</td>
<td>32</td>
<td>100%</td>
</tr>
</tbody>
</table>

The frequency distribution table of the results of learning public speaking through the pretest shows that

1. There are 2 students at a value interval of 45-49 with a percentage of 6.25%,
2. There are 3 students in the value interval 50-54 with a percentage of 9.37%,
3. There are 11 students at the interval of 55-59 with a percentage of 34.37%,
4. There are 4 students in the value interval 60-64 with a percentage of 12.50%,
5. There are 9 students in the value interval 65-69 with a percentage of 28.12%,
6. There are 3 students in the value interval 70-74 with a percentage of 9.37%.

Furthermore, table 4.12 also shows frequency distribution of public speaking learning outcomes through the application of multimodal-based digital media (posttest):

1. There is 1 student in the value interval 74-77 with a percentage of 3.12%,
2. There are 5 students in the value interval 78-81 with a percentage of 15.62%,
3. There are 9 students in the value interval 82-85 with a percentage of 28.12%,
4. There are no students who are in the score interval 86-89 with a percentage of 0%,
5. There are 12 students in the value interval 90-93 with a percentage of 37.50%,
6. There were 5 students in the score interval 94-97 with a percentage of 15.62%.

The next calculation is testing the effectiveness of multimodal based digital learning media products. This effectiveness test is carried out by comparing the learning outcomes using multimodal-based public speaking learning media with learning outcomes that do not use digital multimodal-based digital media, as shown in the calculations below.

\[
\text{Effectiveness} = \frac{x \times 100\%}{\text{Total Score Received}} \times \frac{\text{Total of Ideal Score}}{\text{Total Score Received}}
\]

Testing the effectiveness of multimodal-based digital media products is as follows.

\[
\text{Effectiveness} = \frac{x \times 100\%}{\text{Total Score Received}} \times \frac{\text{Total of Ideal Score}}{\text{Total Score Received}}
\]
Testing the effectiveness of multimodal based public speaking instructional media products is as follows.

Effectiveness = \( \frac{\text{Total Score Received}}{\text{Total of Ideal Score}} \) \times 100%

\[
= \frac{1790}{3200} \times 100%
= 55.93\%
\]

\[
= \frac{2870}{3200} \times 100%
= 89.68\%
\]

The calculation obtained from the product effectiveness test shows that the product developed in the form of multimodal based digital learning media on public speaking material is more effective (89.68%) than learning that does not use media with effectiveness (55.93%).

In terms of media effectiveness, the product developed was declared effective. This can be seen from the results of field trials and effectiveness tests. Learning outcomes between students before using multimodal-based digital media and student learning outcomes using multimodal-based digital media and the achievement of competency goals demanded in the RPS show that effectiveness. The average value (mean) of student learning outcomes before the implementation of multimodal-based digital learning media was 55.93, while the learning outcomes after implementing multimodal-based digital media were 89.68; There was an increase in student learning outcomes after the application of multimodal-based digital media with a difference of 33.75 (range 55.99-89.68); the lowest score obtained by students at the time of the pretest is 45 and the highest score is 70; The lowest score obtained by students after the implementation of multimodal-based digital media was 75, while the highest score was 95.

The results of the calculation of frequency distribution before implementing digital multimodal learning media are (1) there are 2 students at the 45-49 value interval with a percentage of 6.25%, (2) there are 3 students at the 50-54 value interval with a percentage of 9.37%, (3) there were 11 students in the 55-59 value interval with a percentage of 34.37%, (4) there were 4 students at the 60-64 value interval with a percentage of 12.50%, (5) there were 9 students at the 65-69 value interval with a percentage of 28.12%, (6) there were 3 students at the 70-74 value interval with a percentage of 9.37%. Meanwhile, the results of the calculation of the frequency distribution of the results of learning public speaking after being applied to digital media are (1) there is 1 student in the 74-77 value interval with a percentage of 3.12%, (2) there are 5 students in the 78-81 score interval with a percentage of 15, 62%, (3) there are 9 students in the value interval 82-85 with a percentage of 28.12%, (4) there are no students who are in the score interval 86-89 with a percentage of 0%, (5) there are 12 students in the 90-93 score interval with a percentage of 37.50%, (6) there were 5 students at the 94-97 score interval with a percentage of 15.62%. Next, the calculations obtained from the product effectiveness test show that this digital learning media is more effective (89.68%) than learning that does not use media (55.93%).
V. Conclusion

This digital multimodal-based public speaking learning media is very effective to use to improve learning outcomes. The learning outcomes after applying this product were at an average of 89.68%, meanwhile the learning outcomes before the application of learning media were at an average (55.93%).

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