The Effectiveness of Tutorial Video-Based Edmodo Learning Media in Hair and Bun Styling Courses

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Abstract: This study analyzes the effectiveness of video tutorial-based Edmodo learning media in Hair and Bun Styling courses. This research method used the Research and Development (R & D) method using the 4D model (Define, Design, Develop, Disseminate). The hypothesis test used in this research was the t-test. The results showed that video tutorial-based learning media was effective, with differences in student learning outcomes between the control and experimental classes. This research has produced an effective tutorial video learning media that can be used to improve students' understanding of the material and practical skills in lectures on learning Hair and Bun Styling. Using video tutorial learning media can increase the effectiveness and efficiency of time use in the learning process to be carried out optimally. Video tutorial-based learning media displayed through the Edmodo application has ease in learning because it can be accessed independently by students and can take advantage of existing technology because it is accessed via students' smartphones and maximizes the use of existing facilities and infrastructure.

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Introduction

Education is a way to develop knowledge and skills that can play an active role in life. With an increasingly advanced pace of development, everything synergizes with technology, including education. The use of technology in supporting learning activities in tertiary institutions is one of the effects of increasingly advanced science, namely the use of learning media (Ambiyar & Panyahuti, 2020). Several things support learning effectiveness, namely, the help of adequate learning media and following learning needs. Technology-based learning media is currently undergoing many developments that can increase students' curiosity about media-based learning from the development of this technology (Damopolii et al., 2019). In this era of all technology, technology is a real form of development that continues to occur, as well as the development of sophistication of technology that can be adopted in learning media which provides quite influential possibilities in changing the way one learns, to obtain information.

There are many learning methods and strategies that lecturers can use. A lecturer must also make an innovation or a learning development to increase student interest and motivation to learn further (Ambiyar & Nizwardi, 2016). All things that can increase the stimulation of attention, thoughts, feelings, and interests as intermediaries for delivering messages from senders and recipients of messages so that a learning process can be established, which is the concept of learning media (Rachmawati et al., 2020). A teacher improves the quality of learning by using learning media so that students can achieve learning objectives. By using appropriate learning media, lecturers can help students master the lecture material provided.

The use of learning media can also apply these concepts to facilitate students' understanding of the concept to achieve learning objectives.

Based on observations made at the Department of Cosmetology and Beauty, Padang State Based on observations made in the Cosmetology and Beauty department of Padang State University, it was obtained that the Hair and Bun Styling learning had been carried out using Powerpoint learning media in conveying learning material, using the lecture, question, and answer method, and practicum. The media used during lectures include whiteboards, PowerPoint, and print media such as displaying pictures in learning which tend to use PowerPoint more. According to students, the effectiveness of using learning media, such as PowerPoint, is quite effective. Then in the next question about the ease of understanding of students from using PowerPoint media, students generally answered that PowerPoint media was easy to understand. Knowledge of learning media in the form of video tutorials, namely, students already know about the existence of these media. The use of learning media using video tutorials in learning has been implemented, and there is no use of learning media in the form of video tutorials used by lecturers.

Video tutorials will later be delivered via the Edmodo application as a form of learning media development. It means that lecturers do not have to rely on books or job sheets to deliver learning material because they can display learning using an application that can be saved periodically. The use of tutorial video learning media delivered through the Edmodo application is an independent learning media following the way of learning in higher education. So that researchers will develop video tutorial-based learning media using the Edmodo application in Hair and Bun Styling courses to make it easier for students to receive and understand lecture material.

At the time of learning, 70% of students face difficulties participating in the learning process in class because of differences in learning styles that are unsuitable for each student. The remaining 30% of students can participate well in lectures because the lecturer's teaching style and learning style follow student learning styles (Papilaya & Huliselan, 2016). Most students need help to follow the teaching style applied by the lecturer in teaching in class. Student learning styles can be seen from the dominant intelligence possessed by these students, so lecturers are expected to understand the learning styles of all students, as seen from the effectiveness of student learning in class. The level of student intelligence ability can result in discrepancies in student learning achievement caused by a lack of lecturer understanding of student learning styles. Therefore, lecturers should facilitate learning by knowing and recognizing each student's learning style (Sari et al., 2022).

Media is an intermediary or tool used to help achieve goals in learning and learning. Meanwhile, learning media is an intermediary that can support the learning and teaching process so that it is better and perfect by clarifying the meaning of conveying and the meaning of the messages (Suseno et al., 2020). Materials, objectives, methods, and conditions of students with learning media must be considered and become the focus of lecturers' attention in selecting and using media that are appropriate to the learning process carried out in class. It is also related to effectiveness and efficiency in achieving learning outcomes. Learning media must also be adapted to the characteristics of students because not all learning media are suitable for all situations, especially for students, the level of student education, to attract students' interest, and so on (Yanita et al., 2022). The selected media should be able to motivate students to learn so that a stronger interest in learning independently and actively emerges. From several media types, it can be concluded that learning media are grouped from various aspects. However, in lectures on beauty and

cosmetology, the practices carried out are held by students who need examples of work steps. Learning media is needed to provide examples and understanding to students, namely, learning video media.

Video tutorials describe a series of process stages to help understand a material presented by the teacher whose content is learning material as student guidance (Patel et al., 2020). Meanwhile, learning video media is computer software containing subject matter to provide students with an overall understanding of the subject matter (Wirasasmita & Putra 2017). A video is a tool capable of displaying process exposure, presenting information, explaining difficult concepts, teaching skills, and shortening or slowing down time (Riyanto& Yunani, 2020). Video tutorials guide students in understanding a material visually. Students can participate actively in all practical learning activities according to what is taught in the video. The tutorial is class guidance conducted by a teacher to a group of students (Hendriyani et al., 2018). Several conditions determine how to video tutorials can be used as learning media to help the learning process to be easier to use, effective for improving learning outcomes, efficient in the use of time, and appropriate for use according to student needs.

Video tutorials have the advantage that they look attractive; with video recording, some viewers get information from experts, and demonstrations are usually difficult to prepare and record; during the study, the lecturer can focus students' attention on the presentation, time efficiency, and recordings that have been made can be played back, can observe an object, closer to a moving object, the loudness or weakness of the sound can be adjusted, the projected image can be frozen (pause) to observe the image (Efendi et al., 2015).

Regarding its function as a supporter of learning methods, in this online learning media system, there are several aspects, namely questions, material that can be provided in the form of modules and equipped with how the work is displayed, community, students can provide mutually beneficial information and develop online learning communities, online teaching, in carrying out practical exercises the lecturer is always online to provide directions to students, can work together, carried out simultaneously without being constrained by distance with the existence of software that can arrange meetings online, media in delivering material can attract interest in lectures using audio technology and visuals.

One of the applications used to deliver online study material is the Edmodo application which is downloaded from the internet. Edmodo is a social network for learning management system (LMS) based learning. Edmodo provides access to communicate, share information, collaborate, and learn applications for students and lecturers. Edmodo has a function in the learning process as a complement, substitute, and companion (Ainiyah & Puspasari, 2015). The advantages of the Edmodo application are that it can assist lecturers in giving notifications in groups or giving online tests, which allows students to send articles that follow the class curriculum and related to lecturer orders; the Edmodo application used by lecturers can develop the learning process in a class by way of discussion so that students can communicate with one another at the same time, lecturers can also use the Edmodo application to give orders, determine, and discuss with students online at the same time (Ekayati, 2015).

Edmodo provides a way to share educational content, manage assignments, provide notifications for every activity between lecturers and students, and foster collaboration in the classroom (Sumardi & Muamaroh, 2020). Edmodo makes it easy for lecturers to create a virtual class adapted to real classroom learning conditions (Halil, 2020). Edmodo was developed with an adaptive learning method according to the needs of students. Learning

using the Edmodo application is student-oriented by providing access to developing abilities independently and emphasizing competence and creativity in understanding concepts (Alqahtani, 2019). Ideally, lecturers and students always access various information quickly, responsibly, and as expected. This study aimed to analyze the effectiveness of video tutorial-based Edmodo learning media in Hair and Bun Styling courses, as seen from the assessment of both the experimental and control groups.

Research Method

In this study, the method used was Research and Development with a four-D development model (Define, Design, Develop, and Disseminate). The development research method is research conducted by developing existing products or creating new products and testing the product's effectiveness so that it can be used in the learning process (Sugiyono, 2019). This research method was used to produce a particular product and then test the effectiveness of the product. This research was located at the Beauty and Cosmetology Department, FPP, UNP, for 2022/2023. Effectiveness testing was carried out to determine the effectiveness of using video tutorial learning media for Hair and Bun Styling courses after being developed, as seen from student learning outcomes tests using video tutorial learning media. In determining the effectiveness of video tutorial media in the Hair and Bun Design course, students were given a test in the form of questions regarding the material. The test questions given were first tested for the validity, reliability, index of difficulty, and test of differential power of the questions.

Validity Test

Test the validity of the items calculated using the biserial correlation coefficient formula (Sugiyono, 2018). Test questions are declared valid if they can measure what is to be measured and the results are in accordance with the criteria. The validity test of the questions is carried out using the product moment formula as follows: The price of $rpbi$ is then consulted with the value of $rtabel$ at a significant level of 5%. If $rpbi > rtabel$, then the test items are valid. Conversely, if $rpbi < rtabel$, then the test items are invalid.

Reliability Test

A test is reliable if carried out repeatedly; if the measurement results are using tests on the same subject, it will give consistent results (Arikunto, 2018). *Reliability* is an instrument that shows the consistency of a test. So, a test is reliable if the results are consistent.
The criteria for reliability testing are consulted in table 1.

Table 1. Reliability Testing Criteria

No.	Reliability			Classification
1	0,00	R	0,199	Very low
2	0,20	R	0, 399	Low
3	0,40	R	0, 599	Enough
4	0,60	R	0, 799	Tall
5	0,80	R	1,00	Very high

Difficulty Index

The difficulty level of a question is a value that indicates how difficult or easy a test item is (Arikunto, 2018).

Table 2. Difficulty Index

Intervals	Category
$0,00 < P < 0,30$	Hard

0,30 <P< 0,70	Currently
0,70 <P< 1,00	Easy

Power Difference Test

The test of discriminating power is an indicator to distinguish students who are smart from those who are less intelligent (Arikunto, 2018). The power of difference test was carried out to differentiate the categories of students between those with high abilities and students with low abilities.

Analysis of the Effectiveness of Learning Media Video Tutorials for Hair and Bun Styling courses

a) Normality test

The normality test was carried out using the Kolmogorov-Smirnov equation formula with the help of the SPSS 16 application at a large significant level of 0.05, it was stated that the data were normally distributed.

b) Homogeneity Test

The homogeneity test in this study uses the Levene-Statistic formula with the help of the SPSS 16 application. If the significant value is greater than 0.05, it is declared homogeneous.

Results and Discussion

In this study, the method used was Research and Development with a four-D development model (Define, Design, Develop, and Disseminate). Following Sugiyono (2018) opinion, this method and model were chosen because it aims to produce a product in the form of Edmodo learning media based on video tutorials in the Hair and Bun Styling course. The define stage includes needs analysis, material analysis, and student analysis. The needs analysis stage is useful for identifying problems during learning and seeing what solutions are needed. The material analysis stage is to identify learning materials that are difficult for students to understand during learning. The student analysis stage is interviewing students.

At the design stage, at this stage, the design of the video tutorial media is carried out. The first stage was the preparation of material standards, which were carried out based on the RPS for Hair and Bun Arrangement and continued with making grids. Selection of media according to learning objectives. Script writing, namely making video tutorial scripts appropriate to the learning material shooting and sound for making video tutorials. Furthermore, editing involves merging several videos and inserting sound and explanatory text. It was Followed by publishing tutorial video learning media for students of the Beauty and Cosmetology department. At the end of the design stage, namely uploading video tutorial media into the Edmodo application for students to access independently.

Figure 1. Initial Video Display

Figure 1 is the initial appearance of the Hair and Bun Styling tutorial video which contains the opening. The stages of the bun are displayed with an explanatory sound as an explanatory description of the bun.
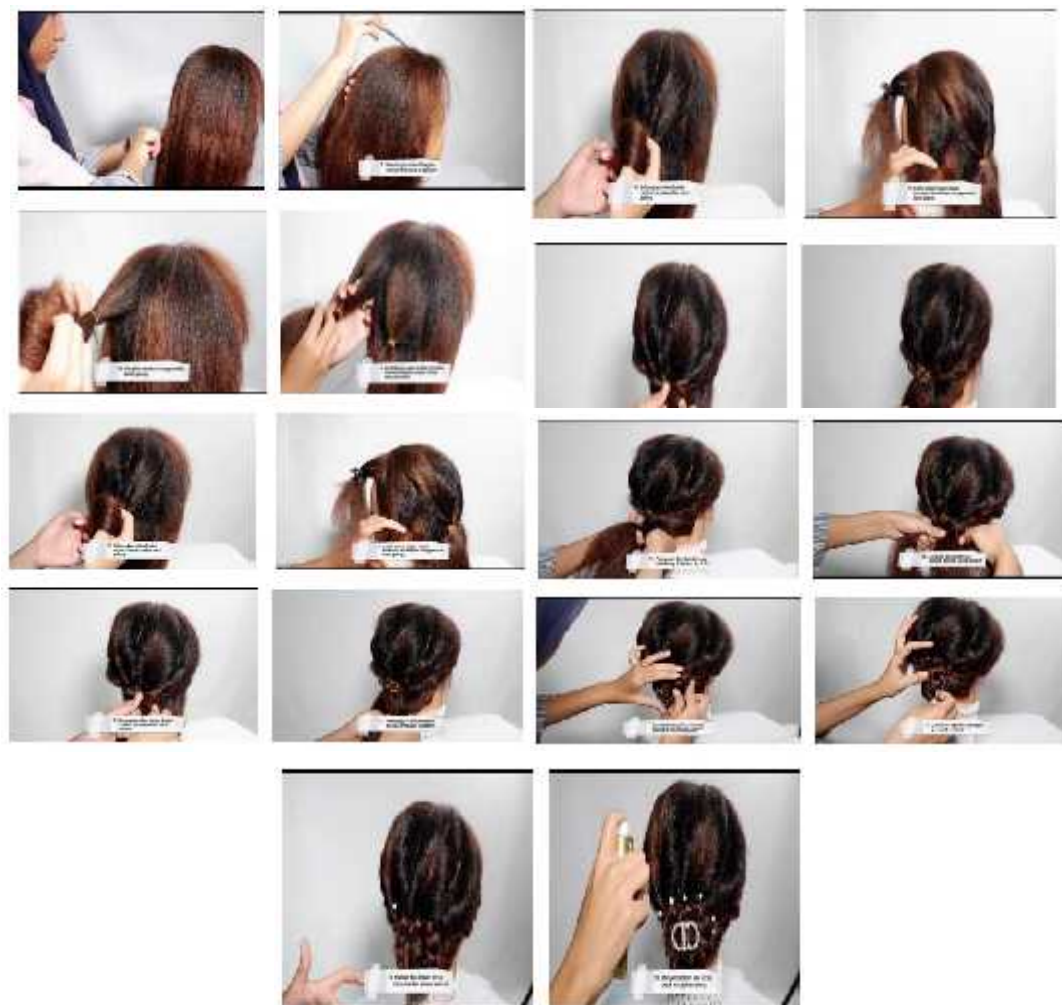

Figure 2 displays the contents of the video

Figure 2 displays the bun-making tutorial video, which contains the stages of workmanship and the material tools needed to make hair styling according to the bun theme.

Development Stage (develop) this stage aims to produce effective learning media. This effectiveness test is carried out by giving test questions to students tested for the validity of the questions, index of difficulty, discriminatory power, and reliability, which are declared worthy of being tested on students. Data collection in this study was based on student learning scores using the Hair and Bun Styling learning video with students who did not use the Hair and Bun Styling tutorial video learning media. Furthermore, after carrying out the item test, the t-test is calculated first using the normality test and followed by the homogeneity test. Table 3 shows the average value of student learning outcomes in the control and experimental classes.

**Table 3. Student Learning Outcomes**

No	Class	Learning Outcomes
1	Control	66,93
2	Experiment	80,13

The table above shows the difference in learning outcomes between the control and experimental classes. In the control class that did not use video tutorial learning media, the average student learning outcome was 66.93. In contrast, the experimental class that used video tutorial learning media obtained an average student learning outcome of 80.13, which means there is a difference in average learning outcomes among control class students and the experimental class. After obtaining the test results, proceed with the data analysis test with the T-test, including the normality and homogeneity tests.

The results of the data normality test were in the control class of 0.386, which means that the data is normally distributed because the significance level is 0.05. After all, the normality value is greater than the significance of 0.386> 0.05, meaning the data is normally distributed. In the experimental class trial, the results were 0.688, greater than the significance of 0.05, which means 0.688> 0.05; the data was normally distributed in the experimental class. Based on the homogeneity test, the homogeneity value of the data is 0.283, which is greater than the significance of 0.05. The result of data homogeneity is 0.283> 0.05, which has the same (homogeneous) variance and can be done by hypothesis testing.

Table 4. Product Trial Results
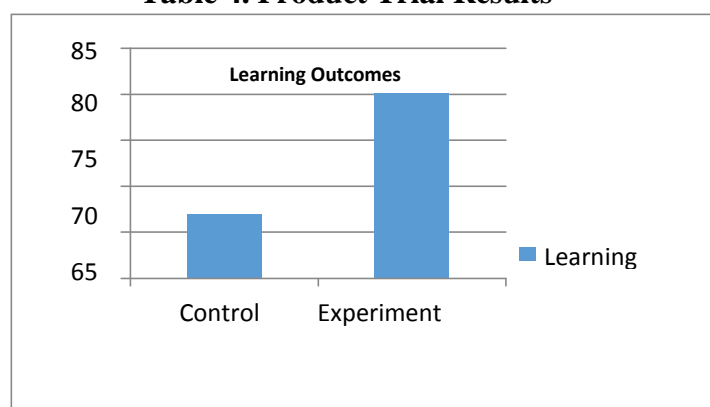
Hypothesis testing was carried out to see the differences between students using media and students who did not use media. The test results are t count of 6.482 and t table of 2.062. The hypothesis proposed is acceptable because t count> t table is 6.482> 2.062. Testing this hypothesis states that there is a difference between the control and experimental classes in learning Hair and Bun Styling courses for students of the Beauty and Cosmetology department. Based on the research results above, the results of the hypothesis are t count of 6.482 and t table of 2.062. The hypothesis proposed is acceptable because t count > t table, namely 6.482 > 2.062. so that the Edmodo learning media based on video tutorials in the Hair and Bun Styling course is declared effective. Similar to the research conducted by Wisada & Sudarma (2019), the results obtained were t count > t table with a value of 17.900 > 2.00, which means that video tutorial learning media is effectively used for the learning process. As well as research conducted by Saputra & Mujib (2018) with the result that the t count is greater than the t table, namely 12.868 > 1.668. So, using Edmodo learning media based on video tutorials in the Hair and Bun Styling course is very effective in learning.

Conclusion

The results showed that video tutorial-based learning media was effective, with differences in student learning outcomes between the control and experimental classes. This tutorial video learning media is effectively used to improve student learning outcomes. This research has

produced an effective tutorial video learning media that can be used to improve students' understanding of the material and practical skills in lectures on learning Hair and Bun Styling. Using video tutorial learning media can increase the effectiveness and efficiency of time use in the learning process to be carried out optimally. Video tutorial-based learning media displayed through the Edmodo application has ease in learning because it can be accessed independently by students and can take advantage of existing technology because it is accessed via students' smartphones and maximizes the use of existing facilities and infrastructure.

Recommendation

For future researchers to be able to refine again, especially video tutorial-based learning media that are more creative, better, and helps expedite the learning process. For lecturers in hair and bun styling courses, this media can be a choice of media used in the learning process, so it is hoped that the hair and bun-styling tutorial video learning can be a solution to problems in learning so that it can increase creativity and student learning outcomes in learning hair styling and buns at the Department of Cosmetology and Beauty, Padang State University.

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