The Effectiveness of the Use of Video Media on Learning on the Competence of Scalp and Hair Care of Vocational High School Students of Beauty Department

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Abstract

The objective of this study is to determine the effectiveness of the use of video media in improving student learning outcomes in the competence of caring for the scalp and hair. The research method used was an experimental method with pretest and posttest control group design. This study used test as a research data collection instrument. The validity test of the test questions was analyzed by using product moment correlation and the reliability testi was analyzed by using the Kuder-Richardson-20 formula (KR-20). The contents validity of video instrument and the performance of students were analyzed by using the Contents Validity Ratio (CVR) formula, meanwhile, the reliability test was analyzed by using Cohens Kappa. The study population was a class of X beauty students at State Vocational High School 3 Pati. The placement of the students into the experiment group and the control group used a random assigment technique by drawing. Based on the results of the t-test, the initial average of learning outcomes in the competency of caring the scalp and hair of the control group is 54.5704, it improves into 75.0593 with the improves of 37.54%, including in the "low" category. Whereas, in the experiment group, the initial average learning outcomes in the competency of caring for the scalp and hair is 55.9438, it increases to 83.3281, with the improves of 48.95%, including in the "medium" category. The difference in the improvement in learning outcomes in the experiment group is higher than the difference in the improvement in learning outcomes of the control group (48.95% > 37.54%) so that it can be synthesized that the use of video media is effective in learning competency in caring for the scalp and hair in class of X beauty students of State Vocational High School 3 Pati.

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INTRODUCTION

Educators as pillars in preparing young people can inspire students not as objects of learning, but let the students as the subjects of learning (Mulyadi, 2015: 385). In the learning process in the schools, teachers are figures who have a major role in achieving those things, so that the teacher is expected to have the skills to deliver the material and choose the learning model and the right learning media so that the learning is effective. Teaching and learning are important elements in education (Sofi et al. 2017: 271).

State Vocational High School 3 Pati is one of the vocational high schools in Pati regency. State Vocational High School 3 Pati has 6 expertise study programs, they are hotel accommodation, patisserie, catering services, skin beauty, hairstyling and fashion. One of the basic competencies is the competence to care for scalp and hair. The core material explains how to carry out scalp and hair care so that students are able to know and master how to do the work of caring for the scalp and hair (creambath).

The existing problems in the original learning outcomes of students that is obtained based on field observations by using interviews with students and teachers in the process of learning, the competency of caring for the scalp and hair, some problems include: (1) In the learning process of scalp and hair care competency, some teachers still uses the lecture method with power point media which contains text; (2) When the teacher demonstrates how to do the massage creambath movement in the practice room, there is a limited view of the students towards the teacher's demonstration; (3) The existing learning media is taken from the YouTube video so that it does not fulfill the characteristics of the learning media. The learning media is used as an instrument to channel information from teachers to students and stimulate students' thoughts, feelings, attention, and interests so that the learning process becomes more effective. Daryanto (2010: 86) states that video media is a very effective medium to help the learning process. Video media is easy to understand its contents because it is a guide and explanation that is delivered directly with visual and sound. The student's interest is the motivation of students to know the description of the practices that will be implemented so that the students' understanding of the material delivered becomes faster and maximum (Bhaskara, et al 2014: 42). Video media also allows students to learn by themselves, by watching the learning video repeatedly outside school hours. Learning methods and media have a large share in the learning process. Video media also has the characteristics of overcoming the limitations of distance and time (Mudani, 2008: 158).

Purwanti (2015: 47), concludes that: The development of learning video media with ASSURE models in Mathematics subjects can make learning effective. Whereas, according to Putri (2012: 318) in her research, it is proven that the use of video media is more effective in improving the introduction of children's musical instruments in the mental retardation class of DIII /C Elementary School for Exceptional Children (SDLB) 20 of Solok City. The previous research shows that the use of video media can be effective in learning and can help students understand the teaching material, because in State Vocational High School 3 Pati is not available the media, it requires learning media that can support the teaching and learning process so that the teacher does not have difficulty in explaining the material.

Based on the problems and descriptions that have been described above, the researcher is interested in conducting research entitled "The Effectiveness of Using Learning Media Videos on the Competence of the Scalp and Hair Care of Creambath Subjects of the Students in the Beauty Department".

The objectives of this study include; (1) Test the learning video media of the competence of the scalp and hair care that will be used in the learning, whether it is valid and reliable according to their contents based on expert thinking; (2) describe the learning outcomes of the competence of scalp and hair care by using video media compared to learning that does not use video media; and

(3) Test the effectiveness of the use of learning video media of the competence of maintain scalp and hair care to improve students' learning outcomes of hairstyling department at State Vocational High School 3 Pati.

METHODS

This research was a research that used true experimental research method. The experimental design used pretest and posttest control group design.

Table 1. Pre Test-Post Test Control Group Desaign

Group	Pre Test	Treatment	Post Test
(R) E	O_1	X	O_2
(R) K	O_3	-	O_4

Information: R= Random, E= Experiment Group, K = Control Group, X = Treatment, - = Without Treatment, O1= Pretest of Experiment Group, O2= Posttest of Experiment Group, O3 = Pretest of Control Group, O4 = Posttest of Control Group (Sugiyono, 2012 :112).

This research was conducted in State Vocational High School 03 Pati. The population in this study included all students of class of X Beauty totaling 90 students. The sampling technique in this study was random assigment by drawing. First of all the draw is written on paper in the class of X1, X2, and X3, then the paper was inserted into the box. After the drawing, the lottery results were grouped into 3 groups, where the first class becomes the experiment class, the second becomes the control class, and the remaining class is used as a limited trial class. The number of samples was 59 students, they were from 2 classes, X2 class as a control class group with a total of 32 students and X3 class with a total of 27 students as an experiment class group, while, X1 class for the trial class.

The data collection instruments are tests with multiple choice form test instruments for cognitive domains, instruments in the form of likert scales for psychomotor domains, and video media feasibility tests. Before the test questions were used as data collection instruments, the test questions were first tested and analyzed by using product moment correlation for validity test and biserial point correlation for reliability test. Based on the results of testing the validity of the item, it showed that 10 research questions were invalid, while the valid questions were 30 items. The invalid items were not used for pretest or posttest items. The 30 valid items were used for pretest or posttest and they were considered to represent indicators of competency in caring for the scalp and hair. Litwin (1955: 31) in the Khumaedi's journal (2012: 29) states that if the value of the reliability coefficient was ≥ 0.7 then it was considered reliable. Based on calculations by using the formula KR-20, it was known that the calculation results, it was obtained r11 value of 0.998 which indicates that the instrument was reliable, because the r11 value was 0.988> 0.7. The results of trials of research instruments show varying degrees of difficulty. The problems with easy criteria amounted to 13 items, the medium criteria were 21 items, and the questions with difficult criteria were 5 items. The calculation results of discriminating power of the research instruments \ which had bad criteria were 10 items, sufficient criteria were 18 items, good criteria were 11 items, and very good criteria were 1 item.

Before the instrument for the psychomotor domain was used as an instrument for data collection, the instrument was first tested by two experts and analyzed by using the Context Validity Ratio (CVR) for validity testing and Kappa Cohens for reliability testing. The determination of the instrument item was used or corrected by looking at the CVR index value of the instrument item. If the CVR value <1 then the item was revised, on the contrary, if the CVR value = 1, then the instrument item was used. The video media instrument items were used as many as 17 instrument

items and 1 instrument item was revised, while the instrument items for students' performance were 18 instruments and 2 instruments were revised. The calculation results of the reliability of video instrument, it was obtained kappa value of 0.684 with medium criteria and a significance value of 0.001. While the results of the instrument reliability test showed that the kappa value was 0.655 with substantial criteria and a significance value of 0.000. Because the significance value was smaller than the significance level used of5% (0.000 < 0.05) it can be concluded that there was a significant agreement between rater 1 and rater 2.

Before the video media was used for the study, it was condected video feasibility tests by video experts. The score obtained from the results of the feasibility test of 2 media experts showed the criteria of "very feasible" to be used in learning because the assessment by video media experts 1 and 2, it was included at a range of 151.2 to 180.

The data analysis techniques by using independent sample t-test to test the effectiveness of the study. Before the effectiveness test was carried out, a prerequisite test is performed, they are the normality test and homogeneity test. Based on the calculation of the normality test by using One-Sample Kolmogorov-Smirnov Test with SPSS 16.00 program, the significance value of the experimental group pretest data was 0.642> 0.05, the significance value for the posttest data of the experimental group was 0, 619> 0.05, the significance value for the pretest data of the control group was 0.683> 0.05 and the significance value for the posttest data of the control group was 0.319> 0.05. So, it can be concluded that the pretest and posttest data of the experiment group and the control group were normally distributed. Whereas based on homogeneity test calculations by using lavene statistics with spss 16.00 program, for the pretest data, it was obtained significance value = 0.804> 0.05 and posttest data, it was obtained the significance value = 0.582> 0.05, which means pretest and posttest data between the control group and the experiment group were homogeneous.

RESULT AND DISCUSSION

Table 2. The Description of Learning Outcomes from the Competence of Caring for the Scalp and Hair in the Control Group

No	Score	Criteria	$F_{absolute}$	$F_{relative}$	$F_{cumulative}$
1	≤ 75	Lower than Minimum Mastery Criteria	3	9.28 %	9.28 %
2	≥ 75	Higher than Minimum Mastery Criteria	29	90.63 %	100 %
Total			32		

Based on the table above, the minimum mastery criteria is 75. The results of the 32 students who received grades under the Minimum Mastery Criteria are 3 students with 9.28% relative frequency and 9.28% cumulative frequency. The students who scored above the Minimum Mastery Criteria are 29 students, with a relative frequency of 90.63% and a cumulative frequency of 100%.

Table 3. The Description of Learning Outcomes from the Competence of Caring for the Scalp and Hair in the Experiment Group

No	Score	Criteria	$F_{absolute}$	$F_{relative}$	$F_{comulatif}$
1	≤ 75	Lower than Minimum Mastery Criteria	0	0 %	0 %
2	≥ 75	Higher than Minimum Mastery Criteria	27	100 %	100 %
Total			27		

Based on the table above, the minimum mastery criteria is 75. The learning outcomes of 27 students who received grades under the Minimum Mastery Criteria are 0 student with 0% relative frequency and 0% cumulative frequency. Students who get grades above Minimum Mastery Criteria are 27 students, with 100% relative frequency and 100% cumulative frequency.

The results of the research that have been carried out, they are the data from the pre-test and post-test before and after being given treatment by using video media. The average of students' learning outcomes in the experimental group before treatment (pretest) of 55.9438 and learning outcomes after treatment (posttest) of 83.3281, while the average students' learning outcomes in the control group (pretest) of 54.5704 and learning outcomes (posttest) is 75.0593.

Table 4. The Data Description of Improving Research Results

| No | Group | Average Score | | Improvement | % Improvement |
		Pre test	Posttest	pretest – posttest	(posttest – pretest):pretest
1	Experiment	55,9438	83,3281	27,3843	48,95%
2	Control	54,5704	75,0593	42,61351	37,54%

Based on the table above, it is obtained information on the percentage of improvement in the students' learning outcomes for the Experiment group at 48.95% and the percentage of students' learning outcomes for the Control group is 37.54%. This improvement in the students' learning outcomes shows an improvement in the learning outcomes of scalp and hair care of X Class at State Vocational High School 3 Pati after being given learning by using video media or Conventional. This is reinforced by the results of the t-test, the students' learning outcomes with t-test will be known to be significant or not with the criteria of Ho accepted and Ha rejected if the significance value > 0.05 and Ho is rejected and Ha is accepted if the significance value is <0.05. The results of the t-test calculation can be seen in Table 5. as follows:

Table 5. The Effectiveness Test of Pretest Posttest Data for Experiment Groups and Control Groups

| | Average | | α | Sig | Criteria |
	Posttest Experiment	Post-test Control			
Pretest	55.9438	54.5704	0,05	0.646	Tidak efektif
Posttes	83.3281	75.0593	0,05	0.012	efektif

The results of the analysis of research data that is proven through statistical test analysis with the assistance of SPSS 17.0 software, it shows that the initial ability of the students in the control class and experiment class is the same (homogeneous). This can be seen from the average value of the pretest results in two classess and proved by the t-test to see the similarities of two means. The results show that there is no effective use of conventional media in the initial ability between experimental and control classes. This is reasonable because both classes have not received treatment by using video media. After the class is treated, effective learning media is used for learning between the control class and the experiment class.

The improvement in the learning outcomes achieved by the experiment class is higher due to the more conducive, active learning atmosphere in the classroom and students' interest and enthusiasm are very visible compared to the control class, especially in terms of the distribution of learning material that is not teacher-centered but it is using video media as a learning instrument.

The use of learning media by using video media is more effective than using the lecture method. It is said to be effective because video media has its own advantages when compared to the lecture method. This can be explained according to experts such as Daryanto (2010: 86), he stated "video is a very effective medium to help the learning process, both for mass learning, individually, and in groups". While Arsyad (2014: 50) stated that "the ability of films and videos to portray live images and sounds provides a special attraction, they can present information, explain processes, explain complex concepts, teach skills, shorten or extend time and influence attitudes". From the explanation of the video, it can be concluded that video media is an effective and interactive medium in providing its own attraction in conveying information, describing the process, explaining complex concepts in masssal, individual, and group learning. The effectiveness of using video media is supported by the superiority of video media according to experts. Arsyad (2014: 50-51) said the excellence of the video included: "1) videos can complement the students' basic experiences when they read, discuss, practice, etc .; 2) videos can describe a process that can be precisely witnessed repeatedly; 3) besides encouraging and increasing motivation, videos instill attitudes and other affective aspects; 4) videos contain positive values can stimulate thoughts and discussion in groups of students; 5) videos can be shown to large groups or small groups, heterogeneous groups or individual groups". Daryanto (2010: 90) also said "the benefits of using video media include: the video display size is very flexible and can be adjusted according to needs, video is non-print teaching material that is rich in information and straightforward because it can be delivered to students directly, videos add dimensions new to learning". Whereas Munadi (2013: 127) said "the characteristics of the video include: overcoming the limitations of distance and time, messages delivered fast and easy to remember, developing thoughts and opinions of students, developing the students' imagination, it is very strongly influences one's emotions, very good in explaining a process and skills, fostering students' interest and motivation". This research is also supported by the previous research, as conducted by Putri (2012: 326) who stated "the results of field research showes that video media is effectively applied in improving the ability to recognize regional musical instruments, while according to Arulselvi, et al. (2016: 1581) it is concluded that the demonstration of three-dimensional video is an effective method for the anatomy of communication and learning. and research by Acharya, et al (2017: 70) in their journal concluding that video case study is an effective active learning tool in the classroom approach. Based on the description above, it can generally be concluded that the learning outcomes of competence of caring for the scalp and hair with video media are more improved and better than the results of learning by lecturing method for students of State Vocational High School 3 Pati of Beauty Department in the second semester of academic year of 2017/2018.

CONCLUSION

Based on the research and discussion in this study. it can be concluded that: (1) the video media learning of the competence of caring for the scalp and hair used in the learning are classified as valid and reliable in terms of expert judgment; (2) There are differences in student learning outcomes on the competence of caring for the scalp and hair in the experiment group that uses learning video media with a control group that does not use instructional video media. The learning outcomes of competence in caring for the scalp and hair of the experiment group shows an improvement of 48.95% , it is higher than the improvement in the learning outcomes of the competence of caring for the scalp and hair in control group of 37.54%; and (3) Video media are effectively used as learning media of competence in caring for the scalp and hair in State Vocational High School 3 Pati.

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