Use of Learning Media Based Technology Information at SMK Negeri 1 Sigkarak

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A R T I C L E   I N F O

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A B S T R A C T

Education is very important and needed for everyone. Various effort have been made to produce a good quality of education. The government has made the education sector be the spearhead to advance Indonesian nation. It's hoped that with the advancement of the education in Indonesia, it can make the people think creatively, critically, productively and Visionary. To relize a good quality of education, the merdeka learning curriculum has been implemented with the student center learning. In implementing the merdeka learning curriculum, information Technologi based learning media is need to make effective and enjoyable learning. Teachers can use interactive media in the learning process to make the learning becomes more effective. With the realization of effective and fun learning, so the goals of national education can be reached.This research was conducted with descriptive qualitative metode to determine teacher's understanding of learnig media, constraints faced and effectiveness of using information technology based learning media.

1. INTRODUCTION

At this time education is very important and needed by every individual. Various efforts have been made to produce quality education. The government has made the education sector the spearhead to advance the Indonesian nation. (Nurrita, 2018) Learning is a change that occurs in individual behavior and the addition of knowledge, skills, and attitudes as a process to develop the whole human person. Because of it the government has a goal to make it will better than before. It is hoped that with the advancement of the world of education in Indonesia, Indonesian people can think critically, creatively, productively and visionary. To realize quality education, the Merdeka Learning curriculum has now been implemented, which is student-centered or student-centered learning. (Hayes et al., 2017) For the purposes of learning many learning resources that we can take advantage of those around us. In implementing the independent learning curriculum, information technology-based learning media is needed to produce effective and enjoyable learning. With the realization of effective and fun learning so that the goals of national education can be realized. (Sanjaya, 2014) The use of learning media can attract students' attention to the subject matter being taught.

The use of information technology-based learning media in schools is now widely used in the learning process. To improve the skills and abilities of teachers in the use of information technology, various trainings and technical assistance have been carried out which are facilitated by agencies engaged in the education sector. According to (DARMADI, 2019) teachers and students are required to have the ability to learn and teach in the 21st century. A number of challenges must be faced by teachers

and students in order to survive in the era of informative knowledge. (Asmani, 2011) said that the implementation of quality education is influenced by the ease of access to knowledge so that it provides a wider, faster, more effective and efficient reach. (Syauqi, 2012) Learning is an effort that occurs in a process that involves various parties so that students gain success in learning, one of which is the factor of the tools used. From the opinion of the experts above, we can conclude that education which has been influenced by advances in Information and Communication technology is very much needed and even requires the ability of teachers and students to keep abreast of developments and progress of the times so as to produce quality education.

Utilization of information technology in learning can be seen from the learning media that is made interactive and interesting. According to Suyanto (2015) media is a tool used to convey information or messages. While multimedia, namely several media that are combined and combine three elements. The three elements are sound, text and images so that graphics, video simulations, animation and audio can be used as interactive and interesting presentation media. From the above opinion it can be concluded that learning media is one of the tools used by teachers with the aim of facilitating the delivery of subject matter in the form of graphics, video simulations, animations, and audio that are interactive and have an attractive appearance.

Teacher competency standards in applying and using information technology have been regulated in Permendiknas number 16 of 2007 concerning "Academic Qualification Standards and Teacher Competence". These competency standards are social, pedagogic, professional, and personality that are visible and integrated when the teacher carries out his duties. Two points are mentioned in pedagogic competence, namely 1. Utilization of information technology for the benefit of learning, 2. Utilization of information technology in conveying the subject matter being taught.

Based on the background above, the researcher is interested in conducting mini research to see how far the use of Information Technology-based learning media in the teaching and learning process at SMKN 1 Singkarak.

Based on the results of previous research by (Wiratmaja, 2022) stated that teacher competence in the pedagogical field has not been maximized, but in the utilization and use of information technology-based media and learning tools it has been seen, although not optimal. This is due to the lack of supporting literature and the lack of education and training given to teachers by experienced instructors.

In line with the research conducted by (Wiratmaja, 2022), (Rahmadin et al., 2022) also carried out research which aimed to analyze the impact or benefits of education and training directly or indirectly through "information and communication technology capability mediating variables" on teacher performance at the Telaga Baru Elementary School. West Sumbawa Regency. Based on the results of previous research, it can be concluded by researchers that the education level of a teacher greatly influences the teacher's skills in using information technology-based learning media. This will affect the teacher's performance in carrying out the teaching and learning process. Vice versa, the education level of a teacher is not good, the use and application of information technology will be difficult to implement and will affect the teacher's performance in delivering the subject matter being taught.

(Akram et al., 2022) also conducts community service on "Training for Development of Multimedia Teaching Materials in Improving Teacher Competence" in Anrihua Village, Kab. Bulukumba. Based on the articles used as literature, the purpose of implementing this activity is to increase the ability and competence of teachers in utilizing information technology in the learning process. Based on the identification of the initial problem during the initial observation it was found that there was still a lack of teacher ability in utilizing multimedia-based teaching media. After this activity was carried out and an evaluation was carried out, it was found that the education and training provided to teachers would be able to improve the skills, abilities and competence of teachers in using the media and tools used in information technology-based learning.

Furthermore, in the (Mariatul, n.d.) article (2021), the purpose of writing this article is to solve problems that arise when using information technology-based media and learning tools used by teachers in the process of teaching and learning activities in class. The conclusion from writing this article is that teachers are required to be able to use and apply information technology-based learning media in the teaching and learning process, for this reason understanding, training and education are needed for teachers to create active, interactive, interesting and efficient learning so that subject matter can be conveyed in a timely will be better. (Junaidi, 2019) the function of learning media can also assist students in increasing understanding of the presentation of data or subject matter in an interesting and reliable way.

The increase in teacher ability is also explained by (Wijaya, 2018). According to Wijaya, there are several specific principles in implementing teacher competency improvement activities. Some of these

principles are:1.Scientific. The implementation of activities in the context of improving the quality and competence of teachers must be scientifically justified in terms of both the material and the activities carried out.2. Relevant, the formulation must be relevant to the main duties of the teacher as a professional, namely pedagogic, professional, personality and social.3. Systematically, in increasing teacher competence the components used are connected functionally in an effort to achieve increased competence.4. Consistent, indicators and competencies have a principled relationship between the two.5.Actual, the formulation of indicators and competencies used follow the progress of science and technology6. Flexible, the formulation of indicators and competencies can be changed according to the times, needs and knowledge.7. Democracy, equal opportunities are given to teachers to get and participate in ongoing training and development of teacher professionalism both individually and institutionally.8.Objektif, Development and career development of teachers and the profession refers to an assessment based on indicators that are measured based on their professional expertise.9. Comprehensive, development and development of teacher careers, professional teachers aim to achieve competence and quality performance in educational services useful for building a generation of knowledgeable, able to be themselves, and able to live with other people.10. Independent, each teacher can improve the competencies and skills they have continuously and have professionalism in work, independence in work, and the ability to carry out the functions and duties of their profession as a teacher.11. Professional, Coaching and professional development of teachers who always prioritize the value of professionalism at work.12. Having stages, teacher professional development and teacher training must be adjusted according to time and quality.13. Tiered, teacher professional development and teacher development can be carried out in accordance with the level of education and competencies in the teacher competency standards.14. Continuing, developing the teacher's profession and getting coaching for teachers that can be carried out in accordance with advances in science and technology, arts, needs and renewal of teacher competence.15. Accountable, teacher professional development can be accountable to the public in a transparent manner.16.Effective. Coaching and professional development of teachers must be able and able to provide information as a basis for making decisions by related parties in an effort to further develop actions in improving teacher competence and performance.17. Efficient, teacher professional development is carried out based on consideration of the use of few resources for optimal results.

Based on the above opinion, it can be concluded that efforts to increase teacher competence must be carried out scientifically, systematically and continuously so that they can keep up with the times in order to produce optimal results, effective and efficient and can be responsible.

2. METHOD, DATA, ANALYSIS

Methods

(Nurmalasari & Erdiantoro, 2020) Methodology is an emphasis that the research process must be based on scientific studies so that the conclusions drawn are objective. This mini research study uses a qualitative descriptive research method. (Sugiyono, 2017) Qualitative research methods are research methods based on real conditions that are used to examine objects where the researcher is the key instrument. (Polit, D. F., & Beck, 2004) This type of qualitative descriptive research is generally used in conducting research on social phenomenology. (Mulyadi et al., 2020) In order to obtain and produce an accurate, factual, and systematic description of the information, explanation, condition of the research object, a qualitative descriptive approach is used. (Bukhari, 2022) The purpose of qualitative research is to describe a situation and its characteristics that were ongoing at the time the research was carried out and examine the causes of a particular symptom. This mini research was conducted at SMKN 1 Singkarak from January 9 2023 to January 14 2023. The population and sample in this study were all teachers at Singkarak 1 State Vocational School, totaling 35 people.

In this mini research study, the research instruments used were :1.Direct observation. Observations in this study were carried out directly at SMK Negeri 1 Singkarak. This research was approved by the school by involving all teachers in the school as the population and sample. This observation focuses on the use of information technology-based learning media used by teachers in the teaching and learning process.2. Filling out the questionnaire. Filling in this questionnaire was applied to 35 teachers at SMK Negeri 1 Singkarak. The questionnaire distributed consisted of 30 questions about the use and use of information technology-based learning media and the teacher's knowledge of information technology using a Likert scale of 1-5.

Data

(Basrowi & Suwandi, 2008) Data analysis is a process in detail and formally clear to discuss themes and formulate hypotheses. Data analysis is an attempt to detail the data formally, to find out themes and formulate hypotheses as provided by the data and as an action to make it easier to provide assistance on themes and hypotheses. The data in this study is qualitative data. The data was obtained from several activities carried out by the researcher. The data in this study were obtained from direct observation and filling out a questionnaire conducted by all 35 teachers at SMKN 1 Singkarak.

The data in this study were obtained from direct observation and filling out a questionnaire conducted by all 35 teachers at SMKN 1 Singkarak:

Table1. Result of Questionnaire

	Score	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	63.00	1	2.9	2.9	2.9
	64.00	1	2.9	2.9	5.7
	67.00	1	2.9	2.9	8.6
	69.00	2	5.7	5.7	14.3
	80.00	2	5.7	5.7	20.0
	89.00	1	2.9	2.9	22.9
	125.00	1	2.9	2.9	25.7
	126.00	1	2.9	2.9	28.6
	128.00	1	2.9	2.9	31.4
	130.00	2	5.7	5.7	37.1
	131.00	2	5.7	5.7	42.9
	132.00	3	8.6	8.6	51.4
	133.00	1	2.9	2.9	54.3
	135.00	2	5.7	5.7	60.0
	136.00	3	8.6	8.6	68.6
	137.00	1	2.9	2.9	71.4
	138.00	1	2.9	2.9	74.3
	139.00	1	2.9	2.9	77.1
	141.00	2	5.7	5.7	82.9
	142.00	1	2.9	2.9	85.7
	143.00	4	11.4	11.4	97.1
	144.00	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

It can be seen from the table 1 above, the respondents who got the lowest score after filling out a questionnaire about the use of information technology-based learning media were 8 teachers who were still not effective in using information technology-based learning media. Teacher scores that are still not optimal using information technology-based learning media, namely 63.00, 64.00, and 67.00 respectively are 1 person, 69.00 is 2 people, 80.00 is 2 people, and 89.00 is 1 person. While the highest score of 144.00 is 1 person.

Descriptive Analysis

This descriptive analysis is used to determine and describe the condition of the teacher statistically based on the values obtained from the questionnaire answers that have been distributed by researchers about the use of information technology-based learning media and can find out teacher strategies in using information technology-based learning media in the process of teaching and learning activities at SMK Negeri 1 Singkarak. This study uses the average value (mean), maximum value, minimum value and standard deviation to describe the statistical description of each variable. This descriptive statistic uses the SPSS application.

Tabel 2. DescriptiveStatistics from use of information technology-based learning media

	N	Minimum	Maximum	Mean	Std. Deviation
ANGKET	35	63.00	144.00	121.2286	27.61190
Valid N (listwise)	35				

The table 2 above shows that the results of the analysis that has been carried out through processing on the SPSS application. Base on the table it can be concluded that the description of the value of the questionnaire answers that have been distributed to all teachers about the use of information technology-based learning media and can find out teacher strategies in using information technology-based learning media in the process of learning activities teaching at SMK Negeri 1 Singkarak, namely the maximum score of 63.00, which means that of all respondents who filled out the questionnaire, the lowest score for the answer to the questionnaire that was given was 63.00. The maximum value is 144.00, which means that of all respondents who filled out the questionnaire, the highest score for the answer to the questionnaire that was given was 144.00. the average or mean value of all respondents who filled out the questionnaire was 121.2286. while the standard deviation of all respondents who filled out the questionnaire was 27.61190, which means that the size of the distribution of questionnaire data about the use of information technology-based learning media in the process of teaching and learning activities was 27.61190 from 35 respondents.

Normality Test

The data normality test was carried out by researchers to determine whether the research data collected was normally distributed or not. To test the normality of the data, the Kolmogorov-Smirnov test is used by comparing the significance value with the α value of 0.05. The criteria for the normality test are as follows.

If the significance value is <0.05, the data is not normally distributed
If the significance value is > 0.05, the data is normally distributed

The results of the data normality test from the Use of Information Technology-based Learning Media can be seen in the table below:

Tabel 3. Descriptive Statistics

One-Sample Kolmogorov-Smirnov Test		
		ANGKET
N		35
Normal Parameters[a,b]	Mean	121.2286
	Std. Deviation	27.61190
Most Extreme Differences	Absolute	.326
	Positive	.205
	Negative	-.326
Test Statistic		.326
Asymp. Sig. (2-tailed)		.000[c]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Based on the table above, it can be seen that the significance value of the Use of Information Technology-based Learning Media on the Kolmogorov-Smirnov test results is greater than the alpha value of 0.05. Obtained a significance value of the Use of Information Technology-based Learning Media of 0.000, it can be concluded that the data on the Use of Information Technology-based Learning Media is normally distributed because the significance results are greater than the α value of 0.05. To clarify the results of the research data normality test, it can be seen in the image below.
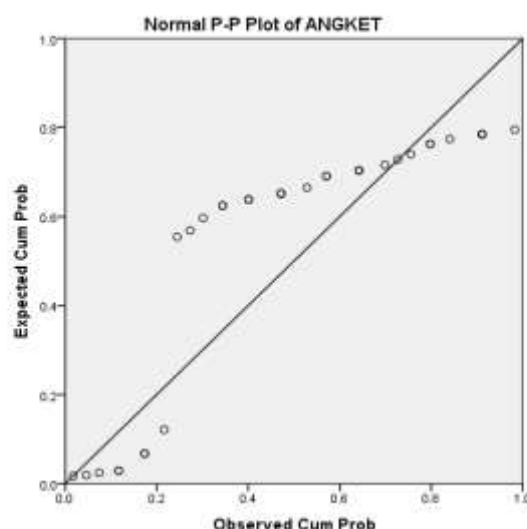
Figure1. Normal p-p plot of Questionnaire

Based on the graphical P-P Plot normality test above, it can be seen that the dots follow and approach the diagonal line so that it can be concluded that the research data on the Use of Information Technology-based Learning Media is normally distributed.

3. RESULT AND DISCUSSION

Result

Based on direct observations made by researchers on mini research studies that have been carried out and the results of processing questionnaires, conclusions can be drawn by researchers, namely the use of information technology-based learning media has been carried out by most teachers at SMK Negeri 1 Singkarak in the learning process, but there are still some teachers who do not use information technology-based learning media. Based on the results of questionnaires and observations and asking directly to the teacher concerned, in general it can be concluded that the cause is the lack of understanding of teachers about information technology media and the lack of willingness of teachers to learn about technological developments so that they have difficulty adjusting to current technological developments.

Based on the results of the answers from the teachers at SMKN 1 Singkarak after answering the questionnaire that had been circulated, it was found that some teachers had not used information technology-based learning media. Judging from the scores that have been processed, the researcher met several teachers out of 35 teachers who received scores of 63.00, 64.00, and 67.00, each of which was 1 person, 69.00 was 2 people, 80.00 was 2 people, and 89.00 was 1 person.

Discussion

Based on direct observations made by researchers on mini research studies that have been carried out and the results of processing questionnaires, the conclusions can be drawn by researchers, namely the use of information technology-based learning media has been carried out by most teachers at SMK Negeri 1 Singkarak in the learning process, but there are still some teachers who do not use information technology-based learning media. Based on the results of questionnaires and observations and asking directly to the teacher concerned, in general it can be concluded that the cause is the lack of understanding of teachers about information technology media and the lack of willingness of teachers to learn about technological developments so that they have difficulty adjusting to current technological developments. (Isrokatun et al., 2021) The professionalism of a teacher can be developed in the areas of knowledge, pedagogy, credible attitudes and teacher skills. (Jajat Sudrajat, 2020) A teacher is said to be professional and the results of his work are good when the students he teaches be able to complete the lesson well. However, problems will arise when the teacher haven't good competency.

4. CONCLUSION

Based on the mini research conducted, it can be concluded that at SMK Negeri 1 Singkarak, the learning carried out by teachers already uses information technology-based learning media. Of the 35 teachers, only 8 teachers have not used information technology-based learning media. They only use the old method in which the teacher dictates lessons to students and students only listen and record what the teacher says. The school principal as the education manager at the school has made various efforts to improve the competence of several teachers who have not been able to use information technology-based learning media, one of which is by holding IHT (in-house training) and peer-to-peer learning.

5. ACKNOWLEDGE

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