THE EFFECT OF EDUCATIONAL QUALIFICATIONS, SCHOOL SUPPORT, PEER INTERACTION ON THE USE OF DIGITAL LEARNING MEDIA

Abd. Ghofur[1], Evi Aulia Rachma[2], Ninies Eryadini[3], Nur Fithria Wijiastutik[4], Hariono[5]

STKIP PGRI Lamongan, INDONESIA.

[1]ghofurkita@yahoo.com [2]eviauliarachma134@gmail.com [3]niniesery@yahoo.com
[4]nurwijiastutik@yahoo.com [5]mbahhariono@yahoo.com

ABSTRACT

In the practice of learning, the teacher discusses monotonous learning methods, class learning passive and verbally interactions. To overcome this problem, the teacher must use learning media. One of the main functions of learning media is as a teaching aid that helps improve conditions, and the learning environment is organized and created by the teacher. Teachers must have minimum qualifications and must also take certification to improve academic qualifications and teacher competencies that are appropriate for the use of digital learning media. School assistance is an important thing in digital learning by teachers in the learning process. In addition, this interaction between teachers at the same school in other schools is expected to increase the teacher's insight into the use of digital learning media. This type of research is quantitative descriptive research. The research instrument used a questionnaire distributed to 100 teachers in Public High Schools in Lamongan City. The data analysis technique used in this study is multiple linear regression analysis. While to prove the research hypothesis used T test and F test. Based on the research, it can be concluded that educational qualifications, support schools, and peer interactions are related to partial and simultaneous use of digital learning media.

Keywords: Educational, Interaction, Digital learning media

INTRODUCTION

Teachers as educators who deal directly with students must have special skills or special qualifications in the academic field. Teachers can perform their duties well to educate students if they have these special qualifications. In the Big Indonesian Dictionary, the definition of qualifications is the expertise needed to do something, or occupy a certain position (Language Center, Ministry of National Education, 2001). So, qualifications encourage someone to have a "special skill or skill". In the world of education, qualifications are understood as special skills or skills in the field of education, both as teaching subjects, educational administration and so on. In fact, qualifications can sometimes be seen in terms of the degree of graduates. Teacher qualifications in Permendiknas Number 16 of 2007 Point A (Aqib, 2008) explain that teachers in SMA / MA, or other forms of equals, must have a minimum educational diploma qualification of four (D-IV) or undergraduate (S1) study programs in accordance with the subjects taught / taught, and obtained from accredited study programs.

Law No. 20 of 2003 concerning National Education System Article 42 paragraph (1) also states that "Educators must have minimum qualifications and certification in accordance with the level of teaching authority, physically and mentally healthy, and have the ability to realize national education goals." Teachers in Indonesia must have minimum qualifications and must take certification to improve academic qualifications and teacher competence, especially in the use of digital learning media. The current technological era requires teachers to use digital learning media. Digital learning media is a media that is developed from various

ISSN: 2223-9944, e ISSN: 2223-9553

combinations of computer-based media and communication systems in the form of text, graphics, audio, video, and as such this media is referred to as multimedia learning (Munir, 2010). The use of digital learning media one of which aims to facilitate communication and strengthen the delivery of information.

Media is everything that can be used to channel messages from the sender to the recipient so that it can stimulate the thoughts, feelings, attention, and interests and attention of students in such a way that the learning process can occur (Sadiman, et al, 2009). Media in the teaching and learning process is intended to facilitate the delivery of messages, information, or subject matter to students. In the practice of learning carried out the teacher is often found to be a symptom that the learning process goes monotonous, the class situation is passive and verbally, that is, students are only given a path and accept, and the teacher carries out the teaching only verbally. It is rare to find more active learning such as discussing, or making discoveries. In simple terms such teaching situations can be described by sitting, listening, noting and memorizing.

Even though students are not like empty bottles that only need to be filled with information content that is considered necessary by the teacher, only by sitting listening, taking notes, and memorizing what is conveyed by the teacher. The reality is clearly not justified, because it can make students passive in the classroom and only static to watch lectures from the teacher in front of the class. In addition, this fact certainly will also impact on the decline in student achievement. To overcome this situation, the teacher must use learning media. One of the main functions of learning media is as a teaching aid that also influences the climate, conditions, and learning environment that is organized and created by teachers (Arsyad, 2008).

Yoon et al (2012) stated that digital learning was first proposed by Jay Cross in 1999. With the advancement and development of technological tools, various explanations and terminology emerged, such as internet-based training, web-based training, or online learning, network learning and distance learning. Digital learning media is one of the efforts to make students actively participate in learning activities to achieve defined learning outcomes at school. Sebastian et al. (2012) consider digital learning to be the fastest growing learning model in recent years as well as the mainstream of future learning. Lin, M. H., Chen, H. C., & Liu, K. S, (2017) say that learning content and digital teaching methods provided are to improve student learning and to increase the effectiveness of teaching or promoting personal knowledge and skills.

In addition to teacher qualifications, school support is also an important thing in implementing digital learning by teachers in the learning process. School support can be in the form of improving school facilities and infrastructure related to technology and improving the quality of teaching staff (teachers). The application of technology in the world of education will indeed take time. From the teacher's side and students must both understand how to use technology. The application of technology in the world of education is very important, because technology plays an important role in changing and improving the quality of education. One of the solutions to overcome the technology teacher is to introduce online learning methods that can be easily accessed. Moreover, many online learning content providers have been circulating in the market.

Schools and learning in schools must continuously strive to develop information and communication technology as a form of service. These efforts are demonstrated through the provision of various Information and communication technology facilities in the form of providing LAN installations, Website installation, Hardware provisioning, giving users the

ISSN: 2223-9944, e ISSN: 2223-9553

right to access learning resources through certain channels. The effort is also a school support for the use of digital learning media in schools.

To improve its ability to use digital learning media, teachers can interact with other fellow teachers (peer interaction) both in the same school environment and with other schools. Interaction is a reciprocal relationship between two or more people, and each person involved in it plays an active role. In these interactions not only happento the relationship between the parties involved but also happen to influence, change, or improve individual behavior with each other. It is hoped that the interaction between teachers at the same school and in other schools will add to the teacher's insight in the use of digital learning media through the knowledge and experience shared by each teacher.

Based on the phenomena described above, this study focuses on knowing the influence of educational qualifications (X_1), school support (X_2), and peer interaction (X_3) on the use of digital learning media (Y).

RESEARCH METHODS

The research approach used in this study is a quantitative approach with a descriptive method. The quantitative approach is research that uses research data in the form of numbers which are then analyzed using appropriate research statistical methods (Hadijah, 2013). In this study the independent variables were educational qualifications (X_1), school support (X_2), and peer interaction (X_3). Whereas the dependent variable (Y) is the use of digital learning media. The population of the study was the Public High School Teachers in Lamongan City. Samples were taken using incidental sampling techniques. The number of samples in this study was 100 respondents. This study uses primary data sources obtained directly from the original source, namely questionnaire data / questionnaires given to respondents regarding the variables of educational qualifications, school support, peer interaction and the use of digital learning media. The research instrument for measuring variables using questionnaires with a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) in response to respondents. The data analysis technique used in this study is multiple linear regression analysis. A good regression model must meet the classic assumption test requirements and feasibility test models.

RESULTS AND DISCUSSION

The following are the results of multiple linear regression analysis.

Table 1. Results of Multiple Regression Equations

Variable	Unstandardized Coeffcients		t	Sig
	B	Std. Error		
Constants	-0.066	0.242	-0.273	0.785
Educational Qualification (X_1)	0.544	0.090	6.066	0.000
School Support (X_2)	0.518	0.067	7.698	0.000
Peer Interaction (X_3)	0.246	0.069	3.581	0.001

Source: Data processed (2019)

Based on the results of multiple regression tests in table 1, multiple linear regression equation models can be made as follows:

ISSN: 2223-9944, e ISSN: 2223-9553

$$Y = -0.066 + 0.544\ X1 + 0.518\ X2 + 0.246\ X3$$

From the equation, it can be explained that:

a. The resulting constant of -0.066 means that the amount of utilization of digital learning media will decrease by the constant, if the education qualification variable (X_1), school support (X_2), and peer interaction (X_3) are constant or zero.

b. The regression coefficient on the educational qualification variable is positive at 0.544, which means, if educational qualifications go up one unit, then the use of digital learning media will increase by 0.544, assuming the school support variable and peer interaction are constant.

c. The regression coefficient on the school support variable is positive, which is equal to 0.518, which means, if school support rises by one unit, then the use of digital learning media will increase by 0.518 with variable assumptions of educational qualifications and peer interaction is constant.

d. The regression coefficient on peer interaction variables is positive, which is equal to 0.246, which means, if peer interaction rises by one unit, then the use of digital learning media will increase by 0.246 with variable assumptions of education qualifications and school support is constant.

The magnitude of the influence of educational qualifications (X_1), school support (X_2), and peer interaction (X_3) partially towards the use of digital learning media (Y) can be seen in the hypothesis test namely t test and F test. The t test is used to determine the effect partially educational qualifications, school support, and peer interaction with the use of digital learning media. The results of t-test calculations with the help of SPSS 22 program can be seen in Table 2.

Table 2. T Test Results

Variable	$\mathbf{t_{count}}$	$\mathbf{t_{table}}$	***Description***
Educational Qualifications (X_1)	6.066	1.985	*There is Influence*
School Support (X_2)	7.698	1.985	*There is Influence*
Peer Interaction (X_3)	3.581	1.985	*There is Influence*

Source: Data processed by researchers (2019)

From Table 2 can be explained as follows:

a. The tcount on the educational qualification variable (X1) is 6,066 with a ttable of 1,985 (tcount ≥ t table). This means that educational qualifications (X1) partially have a significant effect on the use of digital learning media (Y), thus in the first hypothesis, H_0 is rejected and H_{a1} is proven to be true.

b. The calculated value in the school support variable (X2) is 7.698 with a ttable of 1.985 (tcount ≥ t table). This means that school support (X2) partially has a significant effect on the use of digital learning media (Y), thus in the second hypothesis, H_0 is rejected and H_{a2} is proven to be true.

c. The value of t-count on peer interaction variables (X3) is 3.581 with a ttable of 1.985 (tcount ≥ t table). This means that peer interaction (X3) partially has a significant effect on

ISSN: 2223-9944, e ISSN: 2223-9553

the use of digital learning media (Y), thus in the third hypothesis, H_0 is rejected and H_{a3} is proven to be true.

Next is the F test to determine the effect of the independent variables simultaneously on the dependent variable, whether significant or not (Sugiyono, 2016). F test results can be seen in table 3.

Table 3. F Test Results

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	44.662	3	14.887	85.474	0.000
Residual	16.721	96	0.174		
Total	61.383	99	-		

Source: Data processed by researchers (2019)

From the results of the above results obtained Fcount of 85.474 or greater than F_{table} of 2.70, then H_0 is rejected, so it can be concluded that this educational qualification (X_1), school support (X_2) and peer interaction (X_3) simultaneously have a significant effect on utilization of digital learning media.

The magnitude of the influence of educational qualifications (X_1), school support (X_2), and peer interaction (X_3) simultaneously on the use of digital learning media (Y) can be seen from the coefficient of determination in table 4.

Table 4. Coefficient of Determination Test

Model	R	r^2
Educational Qualifications	0,420	0,176
School Support	0,608	0,369
Peer Interaction	0,346	0,119
R = 0,853		
R Square = 0,728		
Adj R Square = 0,719		

Source: Data processed by researchers (2019)

The coefficient of determination (R^2) is a measure that shows the contribution of independent variables to the dependent variable (Sugiarto, 2000). The magnitude of the influence of educational qualification variables (X_1), school support (X_2), and peer interaction (X_3) simultaneously on the use of digital learning media (Y) can be seen from the coefficient of determination (R-square), namely the value of R (Multiple Correlation) generated at 0.853 shows a very strong relationship between educational qualification variables (X_1), school support (X_2), and peer interaction (X_3) with the use of digital learning media (Y), because it has a correlation value that approaches the value of 1.

The adjusted R Square value generated is 0.728 indicating that the use of digital learning media (Y) is influenced by educational qualifications (X_1), school support (X_2), and peer interaction (X_3) of 72.8%. While 27.2% is influenced by other factors, besides the variables in this study. From the results of the analysis in the table above, it is known that the coefficient of partial determination (r2) for the educational qualification variable (X_1) is 0.176, school support (X_2) is 0.369, and peer interaction (X_3) is 0.119. This states that the magnitude of the contribution of the influence of educational qualifications (X_1), school support (X_2), and peer interaction (X_3) separately on the use of digital learning media (Y) is 17.6%, 36.9%, 11, 9%.

ISSN: 2223-9944, e ISSN: 2223-9553

The conclusions obtained from data analysis using SPSS 22 are educational qualification variables that influence the use of digital learning media. This means that the educational qualifications that teachers have can improve academic qualifications and teacher competence, especially in the use of digital learning media. The results of this study are in accordance with the sound of Law No. 20 of 2003 concerning National Education System Article 42 paragraph (1) also states that "Educators must have minimum qualifications and certification in accordance with the level of teaching authority, physically and mentally healthy, and have the ability to realize national education goals." Teachers in Indonesia must have minimum qualifications and must take certification to improve academic qualifications and teacher competence, especially in the use of learning technology.

The use of digital learning media should be used by teachers in the technological era like today. Teachers are required to be technology literate, because technology plays an important role in changing and improving the quality of education. Media in the teaching and learning process is intended to facilitate the delivery of messages, information, or subject matter to students. Arsyad (2008) mentions that one of the main functions of learning media is as a teaching aid that also influences the climate, conditions, and learning environment that is organized and created by the teacher.

Further analysis obtained partial results of school support has a positive effect on the use of digital learning media. This means that schools play an important role in the provision of facilities and infrastructure related to technology that supports the teaching and learning process. School support is demonstrated through the provision of various information and communication technology facilities in the form of providing LAN installations, Website installation, hardware provision, giving users the right to access learning resources through certain channels. This is supported by the results of research by Lin, M. H., Chen, H. C., & Liu, K. S, (2017) which states that schools can provide support in the form of providing software and hardware assistance to teachers, according to the need to reduce doubts of digital learning. Then integrate the teacher with interest to form an organization similar to the professional community to promote digital learning.

Then from the results of the subsequent analysis, the results of partial peer interactions obtained positively influence the use of digital learning media. This gives the meaning that the interaction between teachers both at school and between schools can provide insight into the use of digital learning media. Through the interaction between the teacher and the teacher there is a transfer of knowledge and experience that is useful in the use of digital learning media. This is supported by the results of the study of Lin, M. H., Chen, H. C., & Liu, K. S, (2017) which states that a group's collaboration can add insight into digital learning rather than someone individually developing digital learning media.

Based on the results of the study it is known that educational qualifications, school support, and peer interaction simultaneously have a significant effect on the use of digital learning media. Educational qualification is a must for someone to become a professional teacher, especially in utilizing digital learning media. The success of students in learning is influenced by the ability of professional teachers. Professional teachers are teachers who are competent in their fields and master the material to be taught well. Then, able to choose the right teaching and learning method by utilizing learning media.

The use of digital learning media will not run well without the support of the school. Schools can provide support in the form of providing facilities and infrastructure related to technology that supports the teaching and learning process. According to Slameto (2010) school is one of the factors that influence student learning. This includes curriculum, learning standards, the state of facilities and infrastructure, methods and teaching media of teachers, teacher relations

ISSN: 2223-9944, e ISSN: 2223-9553

with students, student relations with students, school discipline, etc. In addition, teachers are also required to always develop their competencies. One of the things that teachers can do is interacting with each other to exchange insights, both knowledge and experience with other teachers (peer interaction). This is an effort to maximize the use of digital learning media.

According to the Gesalt theory (in Susanto, 2013) learning outcomes are influenced by the environment, namely facilities and infrastructure, teacher competence, teacher creativity, learning resources, learning methods and family support, and the environment. So it can be concluded that educational qualifications that include teacher competence and teacher creativity in making learning methods, school support in the form of school infrastructure, and teacher and other teacher interactions can influence teachers in the use of digital learning media, which in turn can also affect learning outcomes students.

CONCLUSIONS AND SUGGESTIONS

Based on the results of the analysts that have been discussed, it can be concluded that educational qualifications, school support, and peer interaction influence both partially and simultaneously on the use of digital learning media. The results of the study found that most of the teachers were certified educators, which meant they were financially established. However, along with this financial establishment, the teacher lacked motivation to improve his competence. Teachers tend to accept what is without wanting changes that make it more troublesome especially in the use of digital learning media.

Teachers must increase awareness and motivation about the importance of using learning media, especially digital learning media.

ISSN: 2223-9944, e ISSN: 2223-9553

REFERENCES

[1] Aqib, Z. (2009). *Standar Kualifikasi, kompetensi, sertifikasi, guru, kepala sekolah, dan pengawas*. Bandung:CV, Yrama Widya.

[2] Arsyad, A. (2010). *Media Pengajaran*. Jakarta: Raja Grafindo.

[3] Depdiknas. (2011). *Undang-undang Sistem Pendidikan Nasional UU RI No. 20 Th. 2003*. Jakarta: Depdiknas.

[4] Hadijah, S. (2013). *Metode penelitian kualitatif dan kuantitatif*. Jakarta: Rajawali Press.

[5] Lin, M. H., Chen, H. C., & Liu, K. S. (2017). *A study ot the effects of digital learning on learning motivation and learning outcome*.

[6] Munir.(2010). *Kurikulum Berbasis Teknologi Informasi dan Komunikasi*. Bandung: Alfabeta.

[7] Sadiman S. A., et al. (2009). *Media Pendidikan: Pengertian, Pengembangan, dan Pemanfatannya*. Jakarta: CV. Rajawali.

[8] Sebastian, D., Ali, S., Ivo, B., Jan, M. L., & Helmut, K. (2012).Determinants of physicians' technology acceptance for e-health in ambulatory care. *International Journal of Medical Informatics, 81*(11), 746-760.

[9] Slameto. (2013). *Belajar dan Faktor-faktor yang Mempengaruhi*. Jakarta: Rineka Cipta.

[10] Sugiarto, D. S. (2000). *Metode Statistika: untuk Bisnis dan Ekonomi*. Jakarta: Gramedia Pustaka Utama.

[11] Sugiyono. (2016). Metode penelitian kuantitatif, kualitatif dan R&D. Bandung Alfabeta

[12] Susanto, A. (2016). *Teori Belajar & Pembelajaran di Sekolah Dasar*. Jakarta: Prenadamedia Group.

[13] Yoon, J., Kwon, S., & Shim, J. E. (2012). Present Status and Issues of School Nutrition Programs in Korea. *Asia Pacific Journal of Clinical Nutrition*, 21(1), 128-133.

ISSN: 2223-9944, e ISSN: 2223-9553