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The Effect of Training on Creating Learning Videos Through Kinemaster and Quizizz Applications on Increasing Digital Competence for Madrasah Aliyah (MA) Teachers in Kudus Regency

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A B S T R A C T

Training on making learning videos through kinemaster and quizizz applications for teachers is one of the materials that can improve the digital competence of teachers, in order to improve the quality of learning for students. The development of technology and information communication technology that is developing encourages teachers to be free to blind digital-based technology. This study aims to determine how training in making learning videos through the Kinemaster and Quizizz applications can improve digital competence for MA teachers in Kudus Regency. This research is a research with a Quantitative approach. Data were collected through an online survey questionnaire distributed through a network of MA teachers in Kudus Regency. The sample used was 92 MA teachers in Kudus Regency. After validation, there were 66 respondents who met the criteria for analysis. Statistical analysis using Structural Equation Model (SEM) on Smart PLS. The results showed that the effect of training in making learning videos on improving the digital competence of MA teachers in Kudus Regency. This finding adds to the literature on training to create learning videos for the solution of problems related to teacher digital competence. The suggestion proposed by educational institutions is that it is necessary to measure and monitor the development of teachers' digital competencies which are always developing in accordance with the existing digital era.

1. Introduction

National development in the education sector is a very strategic national development in order to improve the dignity and welfare of society. A quality education process encourages people to master science and information technology useful for their lives. The government has established Government Regulation No. 13 of 2015 concerning National Education Standards (SNP) which consists of eight standards, one of which is the standard of facilities and infrastructure. The importance of facilities and infrastructure to support the process of organizing education as Rusdiana (2021, p. 245) explains about national education standards are minimum criteria regarding the education system in all jurisdictions of the unitary state of the Republic of Indonesia, namely content standards, graduate competency standards, process standards, standards of educators and education personnel, standards of facilities and infrastructure, management standards, educational assessment standards. Furthermore, Rabiatul Adawiyah (2022, p.104) the use of information and communication technology includes learning that applies digital literacy.

The era of digitalization has affected learning activities today, we must create a variety of learning using applications both offline and online. According to Muhammad Yaumi (2021, p. 285), distance education is understood as formal education with four main components, namely: (1) institution-based, (2) separate learning groups between instructors and students, (3) interactive telecommunications, and (4) the relationship between learners, sources, and instructors.

There are several findings from digital-based learning research, namely: (1). Arabic language learning using the Whatsapp application found that there was progress or improvement in students in answering questions given by the trainer, and made people want to learn Arabic more easily available wherever they were (Abdul Gaffar, et al, 2020, p.648). (2). Survey data from three groups of Indonesian EFL students with three different digital learning platforms: Cisco WebEx Meeting video conferencing, Google Classroom learning management system (LMS), and WhatsApp application. The findings were that all three platforms received very positive approval on all criteria. (Amin & Sundari, 2020, p. 362), (3). Distance learning, digital learning, e-learning have changed education in various ways. It has been observed that there is a positive relationship between digital citizenship behavior and e-learning attitude (Akcil & Bastas, 2021, p. 1), (4). Research to answer the question of whether COVID-19 is a gateway to digital learning in mathematics education. The results showed that digital learning can be a better response to COVID-19 (Mulenga & Marbán, 2020, p. 1). (5). According to Banun et al (2022, p.192) in Febriana (2019, p.1) found that the success of online-based evaluation cannot be separated from the readiness of teachers in mastering information technology. The results of observations at SD Negeri 3 Taskombang in the 2021/2022 academic year show that learning and evaluation activities by teachers are still conventional. Teachers have not utilized information technology in learning evaluation.

The results of the above research indicate a positive correlation between the use of information technology in learning activities. However, there are several obstacles, namely the presence of technology requires reliable human resources, has a high commitment and work ethic, system-based management and strong infra structure, adequate funding sources, strong political will, government policies and superior standards (Maesaroh, 2018, p. 59-63).

Based on these learning problems, researchers are interested in examining training in making learning videos through the Kinemaster and Quizizz applications in improving digital competence for MA teachers in Kudus Regency.

2. Methodology

The research method that researchers use in this study is a type of survey research with a quantitative approach. The main purpose of this study is to determine the effect of training in making learning videos on the digital competence of MA teachers in Kudus Regency.

The respondents of this study were teachers of Madrasah Aliyah in Kudus district, which consisted of 43 madrasahs. The researcher used data collection by observation and questionnaires made using Google Forms were distributed online in evaluating the impact of training implementation. The process of distributing questionnaires was carried out using whatsapp, which consisted of 92 respondents after being verified there were only 66 respondents who were eligible for analysis. Data were analyzed using quantitative analysis using PLS-SEM using the SMART PLS application.

3. Result and Discussion

The research was conducted using an online survey distributed to target respondents. Data screening is carried out to detect problematic respondents, according to Hair (2019) detection of respondent data needs to be done to avoid Bias Response, for example respondents who fill in the origin or respondents who fill in a certain pattern. The origin of the questionnaire distribution carried out was 92 respondents after validation, there were 66 respondents who filled out the questionnaire completely and met the criteria.

1. Measurement Model Testing

Data analysis was carried out using PLS SEM through SMART PLS Version 3.3.2 software. The testing process is carried out in 3 stages including internal consistency reliability, convergent validity and discriminant validity. The results of internal consistency reliability testing were carried out using Cronbach Alpha. The results of the data analysis carried out are produced as in table 1 below:

Table 1
Internal Consistency Reliability Testing

Variables	Cronbach Alpha	Description
Teacher Digital Competency (TDC)	0.895	Very good
Training on Making Learning Videos (TMLV)	0.866	Very good

The test results in the table above provide a reliability value above 0.7. Hair (2017) reveals that the Cronbach alpha score above 0.7 is in the very good category. Thus overall it can be concluded that all variables pass internal consistency reliability testing. Convergent validity testing is done by looking at the Indicator Reliability (Outer Loading) value and the AVE (Average Variance Extracted) value. Hair (2017) states that the standard standard outer loading value is very good if it has a score above 0.7 and the standard AVE value above 0.5 has very good criteria. The results of convergent validity testing can be seen in table 2 below:

Table 2
Convergent Validity Testing

Variables	Indicator	Factor Loading	Composite Reliability	AVE
Teacher Digital Competency (TDC)	TDC1	0.850	0.922	0.704
	TDC2	0.891		
	TDC3	0.797		
	KDG4	0.874		
	TDC5	0.775		
Training on Making Learning Videos (TMLV)	TMLV1	0.858	0.908	0.712
	TMLV2	0.841		
	TMLV3	0.800		
	TMLV4	0.874		

The results of testing convergent validity in the table above show the outer loading value above 0.7 and the AVE value above 0.5. So it can be concluded that each variable and indicator has very good convergent validity. Discriminant validity testing using the Fornell-Larcker criteria (Hair 2017) shows the highest cross loading correlation value. The test results can be seen in table 3 below:

Table 3
Discriminant Validity Testing

Variables	1	2
Teacher Digital Competency (TDC)	0.839	
Training on Making Learning Videos (TMLV)	0.629	0.844

2. Structural Model Evaluation

The next step after the measurement model assessment means evaluating the structural model to test the previously proposed hypothesis. This analysis is carried out by testing the direct influence between the variables that have been hypothesized. The following are the results of the PLS-SEM analysis :

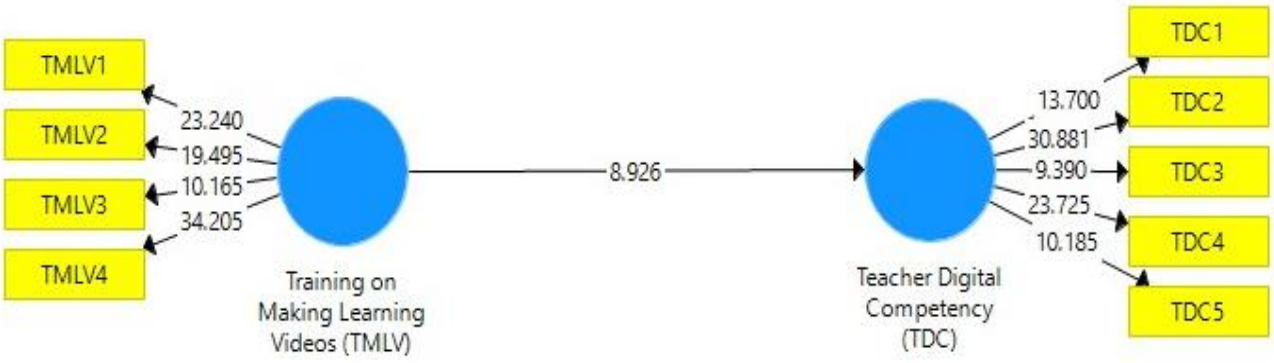

Figure 1
Structural Model Testing
The complete hypothesis testing results can be seen in table 4 below:

Tabel 4
Hypothesis Testing Results

Hypothesis	Sample Mean	Standard Deviation	T-Test	p Value	Status
Training on Making Learning Videos (TMLV) → Teacher Digital Competency (TDC).	0.653	0.070	8.926	0.000	Significant

The results of hypothesis testing are: there is an effect of Training in Making Learning Videos (TMLV) on Teacher Digital Competence (TDC) obtained a t-test value of 8.926 with a p-value of 0.000. using a 95% confidence level, the standard used for the t value is 1.96. Because the t-test value is greater than 1.96 and the p-value is below 0.05, it can be concluded that the hypothesis is accepted. Training on Making Learning Videos (TMLV) has an effect on Teacher Digital Competence (TDC).

Discussion

The findings have illustrated the importance of training in making learning videos in order to improve the digital competence of MA teachers in Kudus Regency. Training in making learning videos has a very important meaning in improving teachers' digital competence supported by several research results. Training in making learning videos can have an effect on increasing the digital competence of teachers, namely:

1. Loretha & Albar's research (2023) showed that training using interactive learning media can improve student learning outcomes in elementary schools.
2. Astriani & Alfahnum's research (2022) found that training in developing learning media based on Video Scribe can improve teacher competence in developing learning media.
3. Research by Kusmaryani et al. (2022) on Online training in educational technology can help teachers in terms of designing E-learning, using supporting Websites and Mobile Applications.
4. Septi Nurhayati's research (2016) on training in making learning videos can improve teacher competence in making innovative learning videos.

Training on making learning videos can have a positive effect on improving teachers' digital competencies. The training can help teachers develop more interactive and interesting learning media that can improve student learning outcomes. In addition, the use of digital platforms in education also provides great opportunities for teacher competency development.

This training provides great benefits to MA teachers in terms of improving their digital competencies. It helps to create a better learning experience for students and improve the quality of education in the Madrasah Aliyah environment, by continuously adopting technology and improving digital competencies, teachers can help their students better prepare for an increasingly digitally connected world. Teachers, learners, academics and the community are expected to be able to access and utilize digital-based learning products easily both offline and online to improve their

mastery and understanding of science and information communication technology.

4. Conclusion

There is a significant influence between training in making learning videos through the Kinemaster application and the use of Quizizz on improving digital competence for teachers at the Madrasah Aliyah (MA) level in Kudus Regency. In order to improve teaching effectiveness and prepare students for an increasingly digitally connected future, this kind of training has a significant positive impact.

We hope that the results of this activity Training on Creating Learning Videos Through Kinemaster and Quizizz Applications in Improving Digital Competence for MA Teachers in Kudus Regency can be socialized and utilized by teachers, students, academics, and the community to achieve accessible, effective, efficient and productive learning goals related to the need to pay attention to several things, namely: (1). structured training curriculum, (2). active participation of participants, (3). use of local case studies, (4). adequate technical support, (5). practical sessions and demonstrations, (6). collaboration and experience sharing, (7). continuous evaluation and feedback, (8). creativity, (9). certification or recognition, (10). monitoring and mentoring after training, (11). impact evaluation.

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