

## How is Teachers' Accept on Digital Learning?

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### Abstract

The era of the industrial revolution 4.0 has entered the field of education, so that the education sector is demanded to produce competent human resources. Teachers are currently required to be able to use technology in the learning process, one of which is to use digital learning media. Therefore, there needs to be a review related to the use of digital learning based learning media on high school economics teachers in Padang City. The data analysis technique used is descriptive analysis, which is an analysis that aims to change the raw data set into an easily understood form, in the form of more concise information. This study uses the Technology Acceptance Model (TAM) to look at measuring teacher acceptance of digital learning. The results of this study, the use of digital-based learning media can be well received by high school economics teachers in Padang, this is evidenced by the average value of the four indicators which reached 81.5912, or can be categorized very well. The high school economics teacher who is a respondent can use digital media in the learning process properly.

**Keywords:** *learning media, digital learning*

### Introduction

The 4.0 Industrial Revolution was launched at Davos Switzelan, where the presence of the digital era presents challenges in education. In this era the world of education is required to be able to have an output in the form of quality human resources so that they are able to compete with output from developed countries. Because globalization must not be avoided but must be faced with full preparation. This requires teachers to be more able to use technology to attract students' interest in learning.

The use of technology in the learning process is one of them as a medium of learning, so that teachers are required to be able to create learning media that are interesting, interactive and can arouse student interest and student motivation (Siwi, 2018: 48). Learning media is not only as a means to deliver material such as teaching aids or application / presentation software, but includes all sources needed to communicate in the learning process, in accordance with Gerlach & Ely's opinion which explains that learning media has a very broad scope, which includes humans, materials or studies that build conditions that make students able to obtain knowledge, skills or attitudes.

According to the e-Marketer market research institute, the country's netter population reached 83.7 million in 2014 and reached 123 million in 2018. This makes Indonesia one of the top 6 countries with the largest number of internet users in the world. This makes the internet one of the most dominant sources of information in academic life. From the existing phenomena, the teacher must be able to make technology-based learning media so that the needs of students who are active users of technology can be met.

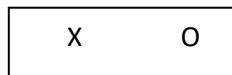
The problem faced by teachers today is that the majority of teachers still come from many generations before digital technology was introduced en masse, so that it requires adjustment to digital technology. This result is explained by Kingsley (2007) "However, the rapidly changing technological innovations about education make it harder for the teachers". In addition, the lack of teacher knowledge of various digital applications for learning media becomes an obstacle in providing learning media that fits the needs of Generation Z. digital learning. Through this research it is hoped that it will be useful for high school economics teachers in Padang and other subject teachers to be able to apply digital learning by utilizing

digital-based media and can help improve the knowledge and abilities of high school economics teachers in Padang in using digital learning media.

**Methods**

The population in this study is the Padang City High School teachers who are members of the MGMP of the Padang City Economics Teachers, with sampling taken by random sampling technique obtained a sample of 45 teachers.

This study uses the Pre Experimental One Shot Case Study design, which is an experimental design where a group is given treatment and the results are observed (Sugiyono, 2011). Hypothesis testing in the design of this study uses t test analysis.



**Figure 1 Pre experimental design pattern one shot case study**

Remarks:

X: treatment given

O: Observation or test

The study only used one sample group as a study. Treatment given 3 times, in the first treatment the group was taught / trained in the use of a screencastomatic media, the second treatment made videos on YouTube and the third treatment was the use of interactive multimedia with autoplay and wondershare quiz creator. In the final stage, the teacher is given a test with a research instrument to get the teacher's acceptance of digital learning.

Before testing hypotheses, a prerequisite test is performed that is the normality test. As for the results of the normality test using Kolmogorov-Smirnov as follows:

**Table 1 Normality Test Results**

N	Kolmogorov-Smirnov Z	Asymp Sig. (2-tailed)
45	0.791	0.560

*Source: Primary Data Processed (2019)*

Based on table 1 the Asymp value of Sig. (2-tailed) of 0.560 is greater than the significance level of 0.05, the data can be concluded that the data is normally distributed.

The results of homogeneity data testing using Levene test > sig. (0.05), then the data can be concluded homogeneous.

**Table 2 Homogeneity Test Results**

Levene Statistic	df1	df2	Sig.
4.048	1	43	.051

*Source: Primary Data Processed (2019)*

**Results and Discussion**

The questionnaire consisted of 17 statements from the Technology Acceptance Model (TAM) theory put forward by Davis (1989; Chen, et al, 2013) namely the attitude paradigm of psychology, which determines how to measure the behavioral components that are relevant to attitudes, distinguish between beliefs and attitudes and determine how external stimuli are related to beliefs, attitudes and behaviors.

According to Adriansyah (2016: 78) TAM is a theory that makes someone's behavior model, which TAM model describes how users of technology accept and use technology as a function of behavioral goals.

Technology Acceptance Model (TAM) determines user acceptance of all technologies that are considered useful (*perceived of usefulness*) and *perceived ease of use*. *Perceived of usefulness* defined as the extent to which an individual believes that using a particular system will improve task performance. *Perceived ease of use* is defined as the extent to which a person believes that using the a particular system is free from physical and mental effort. TAM shows that the intention to receive technology is determined directly by the attitude, perceived benefits and perceived ease of use. According to TAM the individual's intention to use technology determines the actual use of the application and the attitude towards technology influences intention. In addition to the two indicators above, this study also looked at indicators of user satisfaction and also potential problems that might exist.

Thus, in this study looked at four indicators that can help see the results of the treatment that is expected to improve the knowledge and ability of teachers in designing learning media based on e-learning. Four indicators are: (1) Perceived of usefulness (5 statements), (2) Perceived ease of use (3 statements), (3) User satisfaction (4 statements), and (4) Attribute of usability (5 statements)

**Table 3 Table AverageTCR**

Indicators	Average TCR	Category
Perceived of usefulness	86.67	Very Good
Perceived ease of use	79.70	Good
User satisfaction	79.55	Good
Attribute of usability	80.44	Good
Variable Average	81.59	Very Good

*Source: Primary Data Processed (2019)*

Overall, the use of digital-based learning media can be well received by high school economics teachers in the city of Padang. This is evidenced by the average value of the four indicators which reached 81.59, or can be categorized very well.

**Perceived of usefulness**, from the results of data processing, it can be concluded that the indicator of perceived of usefulness has the highest average, which is 86.67 (very good). This means that the use of technology in the learning and teaching process is considered to be very beneficial. By the Padang city high school economics teacher, digital media is considered to make it easier for teachers to obtain information and learning materials and facilitate interaction between teachers and students regarding learning outside the school environment. Furthermore, digital media is considered to be able to help teachers get students' academic information quickly and also save time in the learning process.

**Perceived ease of use**, in this study, the indicator perceived ease of use became the third highest average indicator after perceived of usefulness and attribute of usability, with an average score of 79.70 (good). This shows that the high school economics teacher who became the respondent felt the ease in learning the use of digital media. The teachers felt they had no difficulty in understanding and using digital media in the learning process. Respondents of this study can learn to become skilled quickly in using digital media.

**User satisfaction**, the indicator of user satisfaction in this study has the lowest average value among the four indicators, with an average of 79.55 (good). Even so, it can be said that the Padang city high school economics teacher who was the respondent was satisfied with the use of digital learning media. In addition, respondents also felt confident in using digital media in the learning process at school. High school economics teachers in the city of Padang feel they can complete tasks faster by using digital media. The quality of learning is also felt to improve when teachers use digital media in learning.

**Attribute of usability**, from the results of data processing, the attribute of usability has an average value of 80.44 (good). This value is the second highest average after perceived of usefulness. This means that high

school economics teachers in the city of Padang find it easier to interact with students using digital media. The functions contained in digital media can help teachers in the learning process. In addition, many alternative materials can be obtained using digital media during the learning process.

Furthermore, hypothesis testing will be carried out, namely:

$H_0$  : the acceptance of Padang's economics teacher about digital learning is expected to be the highest 75%

$H_1$  : the acceptance of Padang's economics teacher on digital learning is expected to be higher than 75%

Testing this study used a hypothesis using one sample t-test.  $H_0$  accepted if  $\text{sig.} > 0,05$  and  $H_0$  is rejected if  $\text{sig.} < 0.05$ . Results of the calculations are shown in table 4.

**Table 4 Results of hypothesis Testing**

Type of Test Hypothesis	dk	t	Sig. (2-tailed)
t test	44	91.476	0,000

From table 4, we can find out the value of sig. equal to  $0,00 < 0,05$  then  $H_0$  is rejected. It can be concluded that the acceptance of Padang's economics teacher on digital learning is expected to be higher than 75%. This shows that the economics teachers of Padang City High School are able to accept and use digital learning.

According to researchers that there is acceptance of digital learning by economics teachers in the city of Padang because of the willingness and curiosity as well as the role of presenters who provide training. In carrying out actions, one must have the basic knowledge that has been obtained through various kinds of information facilities, one of which is training. Although teachers are not born of the technology generation, but because of the encouragement from within and the existence that helps train they will be able to use digital learning.

The results of this test are in accordance with the results of Santoso (2010) which shows the TAM factor that directly influences the acceptance of technology.

## Conclusions

Based on data analysis of research results that have been carried out it can be concluded that: the average TCR reaches 81.59 which is categorized very well, and the results of testing the hypothesis that the acceptance of high school teachers about digital learning is not low Overall, the use of digital-based learning media can be accepted well by a high school economics teacher in the city of Padang.

The implication of this research is that schools and the government carry out more training for the use of digital learning to all high school teachers, so that teachers and students are able to face the revolution 4.0 education.

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