TPACK (Technological Pedagogical Content Knowledge) Influence On Teacher Self Efficacy, and Perceived Usefulness, Ease of Use and Intention to Use E-Learning Technology

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Abstract

This study aims to determine the effect of TPACK on teacher self efficacy, perceived usefulness, perceived ease of use, and intention to use, as well as the influence TPACK (Technological Pedagogical Content Knowledge) Teacher Self Efficacy, Perceived Usefulness, Perceived Ease Of Use, of the intention to use technology. The number of respondents in the study is 500. The method used is quantitative research with data analysis techniques using partial least squares (PLS) regression, and with the data collection process conducted through a questionnaire. The results show that TPACK affects teacher self efficacy, perceived usefulness and perceived ease of use. This study also explains that these affect the intention to use technology e-learning. In the study, it was found that TPACK did not significantly affect the intention to use technology. The relationship between TPACK and Intention to Use has a negative relationship.

Keywords: TPACK Influence On Teacher Self Efficacy, Perceived Usefulness, Perceived Base Of Use, and Intention To Use

Introduction

Communication and information technologies are currently experiencing very rapid progress. Along with this development, such technology is widely used in various kinds of institutions, including educational ones, where it is seen as a fairly effective learning medium. Such use of technology in education institutes also has an impact on the growing public desire to understand more about it.

To create a learning environment that is friendly to technology, a positive experience with the use of technology as well as teachers of Reviews their perception is very important to use e-learning technology (Baek et al., 2008). Prior studies have discussed how to increase the positive perception of technology users and their intention to use technology by adopting the technology acceptance model (TAM) (Cheung, 2013); (Teo, 2008); (Ju Young Joo, 2018); (Davis, 1989). These were the first experts to define TAM as a theory that explains the factors that affect the intention to use information technology to improve the performance of an organisation. Perceived ease of use and the perceived benefits of the technology are the most critical concepts that affect the intention to use it; therefore, the external variables that Affect Reviews these both concepts. More recent research emphasises the
external variables that affect the perceived ease of use and perceived benefits in TAM (Venkatesh, 2012).

In addition to improving the ability to use technology, teachers as educators also need to improve the integration of knowledge through teaching, content and technology, which is called Technological Pedagogical Content Knowledge (TPACK), as suggested by Mishra and Koehler (2006). TPACK has become mandatory in the area of teacher expertise in the new learning environment of the 21st century.

Self-efficacy be defined as individuals’ belief in their ability to organise and implement actions to be performed. Teachers’ self-efficacy refers to the level of confidence of teachers in private on her ability to plan instruction and instructional Achieve Goals (Gavora, 2010).

Researchers have been actively discussing the self-efficacy of teachers because they have paid more attention to the influence of self-efficacy on teacher behaviour since the 1970s; in particular, self-efficacy as the most powerful factor affecting the behaviour of teachers (Ju Young Joo, 2018). Teachers who have higher self-efficacy will have the ability to use more advanced methods and modern teaching. Based on the above discussion, this study focuses on "The Effect of Teacher Efficacy Against TPACK, Perceived Usefulness, Perceived Ease Of Use, and Intention To Use e-learning technology".

**Theoretical Framework**

**Tpack**

Technological Pedagogical Content Knowledge (TPACK) was introduced by (Koehler, 2006) and is a framework that is used to identify the knowledge of teachers in teaching activities effectively within a technological framework. The basic TPACK concept emphasises the relationship between the subject matter, technology and pedagogy (CS Chai, 2017) and their interaction in producing technology-based learning (Syafu Malik, 2018). The TPACK concept appears in technology-based learning models of pedagogical content knowledge (PCK) (Syafu Malik, 2018). TPACK discusses the complexities of teaching and learning the which manifests classrooms are upgraded with technology (Ceren Oacak, 2019). Construction TPACK, the seven domains of knowledge as content knowledge (CK) and technology content knowledge (TCK), investigated separately in an integrative perspective, as often happens with surveys TPACK (Handan Atun, 2019)

![Figure 1: TPACK Format](source: Atun, 2019)
According to (Syaeeful Malik, 2018), the TPACK scheme there is a connection between components, cutting the material. Pedagogy (Pedagogy) and technology (Technology) when influential in the learning context. Components, ie C, P, and K, then C Becomes (Content Knowledge), P Becomes (Pedagogical Sciences) and T Becomes (Knowledge Technology).

<table>
<thead>
<tr>
<th>TPACK areas</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>TK</td>
<td>Knowledge of how to use different ICT tools and applications.</td>
<td>Knowledge of how to use Web 2.0 tools (e.g., Wiki, Blogs, and Twitter).</td>
</tr>
<tr>
<td>PK</td>
<td>Knowledge of different teaching and learning approaches, theories of learning, and assessment methods without references to any specific content areas.</td>
<td>Knowledge of how to use inquiry-based learning method.</td>
</tr>
<tr>
<td>CK</td>
<td>Knowledge of subject matter, different discipline without considerations of teaching the subject matter.</td>
<td>Knowledge of mathematics, arts, literature, etc.</td>
</tr>
<tr>
<td>PKC</td>
<td>Knowledge of how to combine the CK and PK in order to make the learning of the subject matter easy, to make the content understandable.</td>
<td>Knowledge of examples and analogies to teach mathematics.</td>
</tr>
<tr>
<td>TPK</td>
<td>Knowledge of how to take advantage of appropriate ICT for supporting certain teaching and learning approaches without considering subject matter.</td>
<td>Knowledge of Kahoot application to activate students or Padlet application for brainstorming.</td>
</tr>
<tr>
<td>TCK</td>
<td>Knowledge of how to represent, research, and create the content with ICT without consideration of teaching. Knowledge of how ICT is used by content experts.</td>
<td>Knowledge of how to use content-specific simulations, navigations app in geography, or SPSS in statistics.</td>
</tr>
<tr>
<td>TPACK</td>
<td>Knowledge of how to combine different areas, how to use appropriate pedagogical approaches for certain content with appropriate ICT.</td>
<td>Knowledge of how to use the Padlet application for supporting students’ brainstorming and sharing of ideas in a biology course.</td>
</tr>
</tbody>
</table>

Note: ICT: information and communication technology; PK: pedagogical knowledge; TK: technological knowledge; CK: content knowledge (science); PKC: pedagogical content knowledge; TPK: technological pedagogical knowledge; TCK: technological content knowledge. TPACK: technological pedagogical content knowledge.

Source: (Valtonen, 2019)

Previous research has dealt with the validation of the factorial structure of the dimensions of knowledge and the intersection of TPACK, especially with the use of self-report measures (Koehler, 2006) (Scherer, 2018); (Schmidt, 2009) (Voogt, 2013) (Andreas Lachner, 2019). Researchers have investigated the issues related to defining TPACK components and component boundaries (Angeli, 2009); Scherer, Tondeur, & Siddiq, 2017); if the construction is intended to be understood as integrative or transformative (Graham, 2011); the validity of the TPACK measurements (Koehler, 2006); and the relationship between TPACK and PCK (Ralph Saubern, 2019). The relationship between TPACK, the perceived ease of use, perceived benefits and intention to use technology have been discussed in the context of the technology acceptance models (TAM) (Ju Young Joo, 2018).

**Teacher Self-Efficacy**

The concept of the self-efficacy of teachers refers to their belief in their ability help students achieve the desired results (Guskey & Passaro, 1994) and is a strong predictor of student motivation (Schunk, 1991) and academic achievement (Caprara et al., 2006; Ross, 1992), as well as lower teacher stress and fatigue (Schwarzer & Hallum, 2008; Wang, Hall, & Rahimi, 2015). The positive effects of self-efficacy are generally explained by the theory of self-efficacy (Bandura, 1997), which states that the more potent themselves involved in tasks and persevere in the face of resistance. In the context of education, self-efficacy produces positive behaviour and effective teachers in the classroom. More recently, Zee and Koomen (2016) conducted a review of 165 research papers, and revealed a positive relationship between the self-efficacy of teachers and support teaching, classroom organisation, and emotional support.
Other studies have examined the self-efficacy of teachers in specific teaching fields (Burke, 2005). This research shows that teachers not only experience different levels of self-efficacy in various areas of teaching, but also with students individually in their classrooms (Zee et al., 2016).

Teachers' self-efficacy has been measured using the short form of the Teachers' Sense of Self-Efficacy Scale (TSES) (Hoy, 2001). This was designed to assess the three-dimensional self-efficacy of aspects of teaching, namely self-efficacy for instructional strategies, student engagement, and classroom management. To measure the self-efficacy of teachers of the Scale Self-Efficacy of Teachers (TSEs) (Teschm-Morlan & Woolfolk Hoy, 2001).

The self-efficacy of teachers has become a major research focus. The level of self-efficacy of high school teacher has been shown to be associated with the teaching of positive behaviours, including class organisation, clear expectations, and the quality of teaching (Schwarzer & Hallam, 2008). Teachers who have high self-efficacy will show increased classroom management techniques and promotion of positive strategies to deal with challenging behaviour (Emmer & Hickman, 1991). Besides, teachers have reported levels of stress and lower fatigue in combination with higher levels of self-efficacy (Schwarzer & Hallam, 2008; Love et al., 2019)

**Perceived Usefulness (PU)**

Davis et al. (1989) define PU as the “subjective probability of potential users that use a particular application system will enhance the performance of its work in the context of the organization”. By definition, Suki (2011) found that PU plays a determining role in usage behaviour and intentions. Subramanian (1994), using structural equation modeling (SEM), reaffirmed the two measures of confidence (PU and PEOU) using a new dataset for two different technologies, and discovered that PU, not PEOU, has a direct effect on usage behaviour.

Perceived usefulness refers to the extent to which a person believes that using a particular technology will improve the performance of the work,” (Davis, 1989). In the framework of TAM, PU is hypothesised as a predictor direct from behavioral intention to use (BI) technology (Park, 2014). Previous studies have shown that PU is positively related to the intention of continuing in the context of e-text (Baker-Eveleth, 2015; Stone, 2013).

Perceived usefulness, hereafter referred to as usability, is defined as the extent to which a person believes that using technology will improve his or her job performance (Davis, 1985). The construct is influenced by ease of use. Past research has shown that the usefulness of the constructs of the most significant and influence attitudes, intentions and behaviours (Jogiyanto, 2008, p. 114).

There are six indicators to measure construct purposes: working working more quickly intervening; improving performance (job performance); increased productivity (increase productivity); increased work effectiveness; facilitating work (making the job easier); and useful (Davis, 1989). Perceived ease of use, hereafter referred to as ease of use, is defined as the degree to technology will be free of effort (Davis, 1985).

**Perceived Ease of Use**

The relationship between PEOU, PU and attitude in TAM theory has been verified empirically in the IT literature. Several studies have used measures of different uses and found them to be consistent with the results of TAM: convictions have a close correlation with attitude (Burton-Jones, 2011) Many studies have also tested the effect of external variables on PEOU (Suki, 2011) and found that such effects are entirely independent of it (Norazah Suki, 2011). Here, we define ease of use as the extent to which the use of 3G mobile services by customers is considered easy or not.

Perceived ease of use is “the extent to which a person believes that using the technology would be free of effort” (Davis, 1989). In the context of this study, PEOU refers to the extent to which users believe that they will continue to use e-learning free of effort. If a system is relatively easy to use,
people will be more willing to learn about its features and eventually intend to continue using it. Studies show that PEOU is positively related to the intention to continue web-based learning (Hamida, 2016).

Perceived ease of use affects the usability constructs, attitudes, intentions and use real technology e-learning. However, the most significant effect is the construction of usability, while for the other constructs the effect is not significant (Jogiyanto 2008, p. 115).

Perceived ease of use is specified as to the which potential users who expected an easy target. In other words, users do not need high difficulty to ask for and use of Reviews These technologies (Chuttur 2009; Surendran, 2013).

**Intention To Use**

The intention to use technology can be defined as the extent to which users want to use technology in the future. Experts have suggested that the intention to use technology is a form of behavioural acceptance of technology relevant to the perceived ease of use and perceived benefits (Chow et al., 2012; Lee & Lehto, 2013; Teo, 2011). Teachers are more likely to intend to use technology when they experience its ease of use and usefulness in learning and teaching (Teo, 2011). Besides, the self-efficacy of teachers has been considered essential to explain their use of technology in the classroom (Albion, 2001). In addition, pre-service teachers tend to range with TPACK developed confidence and intend to use technology in their teaching (Alsolyani et al., 2012; Liu, 2011).

**Hypotheses**

![Figure 2: Research Model](image)

*Source: processed data*

- **H1:** TPACK positively influences teachers’ self efficacy.
- **H2:** TPACK positively influences the perceived usefulness of technology.
- **H3:** TPACK positively influences the perceived ease of use of technology.
H4: Teacher self-efficacy positively influences the intention to use technology.
H5: TPACK positively influences the intention to use technology.
H6: Perceived usefulness positively influences the intention to use technology.
H7: Perceived ease of use positively influences the intention to use technology.

Research Methodology

Based on the research hypothesis above, the purpose of this study is to obtain appropriate knowledge and credible TPACK in terms of the influence of perceived usefulness, perceived ease of use, and intention to use technology. The method used in this study is a survey, in order to obtain suitable data and by the facts directly from the source used comparative approach. Moreover, the study uses a quantitative approach, in which all the data are implemented in the form of numbers and are then analysed to generate score. Sample used in this study amounted to 499 responden. The primaries are the data used the data for the independent variables and the dependent variable TPACK Perceived Usefulness, Perceived Ease Of Use E-learning.

Operating Variables

Values can be different in the period to an object or the same person, or in the same period for different objects (have now, 2010). The operational functions of the variables in the study are divided into two groups, namely independent and dependent variables.

a. According to Sugiyono (2014), an independent variable is a variable that affects or is the cause of change or the emergence of a dependent variable. In this study, the independent variable is TPACK.
b. According to Sugiyono (2014), a dependent variable is a variable that is affected.
c. In this study, the dependent variables are perceived usefulness, perceived ease of use and intention to use technology.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Researchers</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher self-efficacy</td>
<td>Schwarzer et al. (1999), Maykel Verkuyten, (2017), Eugene Lim (2017)</td>
<td>Self efficacy for instructional strategies; self efficacy for classroom management; Self-Efficacy For Student Engagement</td>
</tr>
<tr>
<td>Perceived ease of use</td>
<td>Davis (1989), Wan Salihin, (2016), I Made Narsa (2019), Ismail Bilgicli (2019)</td>
<td>Ease of learning; ease of achieving goals; clear and understandable; flexible; free of difficulty; ease of use</td>
</tr>
<tr>
<td>Perceived usefulness</td>
<td>Davis (1989), Wan Salihin (2016), I Made Narsa (2019), Ismail Bilgicli (2019)</td>
<td>Work done more quickly; work becomes easier; improved job performance; increased productivity; enhanced effectiveness; UsefulTeach More Quickly</td>
</tr>
<tr>
<td>Intention to use technology</td>
<td>Taylor and Todd (1995), Todd (2019)</td>
<td>Intention to use technology in teaching</td>
</tr>
</tbody>
</table>

*Source: processed data.*
Results And Discussion

An indicator is said to be valid if it has a loading factor above 0.5 against the intended constructs. Output SmartPLS for loading factors provides the following results:

![Diagram](image)

**Figure 3 :** SmartPLS output results after removing the invalid indicators

*Source: processed data*

All the indicators shown in Figure 3 have loading factor values above 0.5, so it can be said that they are valid or have met the convergent validity. Furthermore, reflective indicators also need to be tested by cross loading discriminant validity, as follows:

**Table 3 :** Loading Factors

<table>
<thead>
<tr>
<th></th>
<th>Intention To Use</th>
<th>Perceived Ease Of Use</th>
<th>Perceived Usefulness</th>
<th>TPACK</th>
<th>Teacher Self-Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>in1</td>
<td>0.873</td>
<td>0.803</td>
<td>0.791</td>
<td>0.801</td>
<td>0.794</td>
</tr>
<tr>
<td>IN2</td>
<td>0.878</td>
<td>0.791</td>
<td>0.789</td>
<td>0.788</td>
<td>0.788</td>
</tr>
<tr>
<td>IN3</td>
<td>0.878</td>
<td>0.780</td>
<td>0.804</td>
<td>0.778</td>
<td>0.777</td>
</tr>
<tr>
<td>IN4</td>
<td>0.877</td>
<td>0.770</td>
<td>0.798</td>
<td>0.768</td>
<td>0.788</td>
</tr>
<tr>
<td>PEOU1</td>
<td>0.767</td>
<td>0.852</td>
<td>0.775</td>
<td>0.842</td>
<td>0.795</td>
</tr>
<tr>
<td>PEOU2</td>
<td>0.786</td>
<td>0.864</td>
<td>0.796</td>
<td>0.863</td>
<td>0.807</td>
</tr>
<tr>
<td>PEOU3</td>
<td>0.750</td>
<td>0.866</td>
<td>0.776</td>
<td>0.862</td>
<td>0.786</td>
</tr>
<tr>
<td>PEOU4</td>
<td>0.780</td>
<td>0.871</td>
<td>0.783</td>
<td>0.868</td>
<td>0.792</td>
</tr>
<tr>
<td>PEOU5</td>
<td>0.793</td>
<td>0.868</td>
<td>0.801</td>
<td>0.866</td>
<td>0.793</td>
</tr>
</tbody>
</table>
An indicator is said to be valid if it contains the highest loading factor on the targeted construct in loading factor compared to the other constructs. Discriminant validity evaluation was conducted in two stages to observe the value of cross loadings and to compare the value of the square of the correlation between the AVE construct value or construct correlation with roots AVE. The criteria in the cross loading are that each indicator that measures must be correlated higher construct with construct compared with other constructs. The output of cross loading is shown in Table 3, where it can be seen that the loading factor of each indicator for konstruknya higher loading factor to other constructs. Another method to ascertain discriminant validity is to observe the value of the square root of the average variance extracted (AVE) to the recommended values above 0.5. Table 4 shows the study AVE values.

### Table 4: Discriminant Validation

<table>
<thead>
<tr>
<th>Intention To Use</th>
<th>Cronbach’s Alpha</th>
<th>Rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (Ave)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Ease Of Use</td>
<td>0.915</td>
<td>0.915</td>
<td>0.937</td>
<td>0.747</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>0.920</td>
<td>0.920</td>
<td>0.940</td>
<td>0.758</td>
</tr>
<tr>
<td>TPACK</td>
<td>0.913</td>
<td>0.913</td>
<td>0.935</td>
<td>0.741</td>
</tr>
<tr>
<td>Teacher Self Efficacy</td>
<td>0.891</td>
<td>0.891</td>
<td>0.924</td>
<td>0.753</td>
</tr>
</tbody>
</table>

Source: processed data

Table 4 shows that the AVE values of all the variables are above 0.5. The lowest value is 0.741, for the TPACK construct. Reliability testing was conducted by observing the value of the block of composite reliability indicators measuring the construct. Composite reliability results are quite reliable if their values are above 0.3, but will be more satisfactory if these are greater than 0.7. Furthermore, reliability testing may be confirmed by Cronbach’s alpha; if the resulting output has a value above 0.3 it is said...
to be reliable. In this study, all constructs have Cronbach's alpha and composite reliability values above 0.7, meaning the constructs used are reliable.

Hypothesis Test

Table 5: Path Coefficient (Mean, STDEV, T-Values, P-Values)

<table>
<thead>
<tr>
<th></th>
<th>Original Sample Mean (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O / STDEV)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEOU -&gt; IU</td>
<td>0.414</td>
<td>0.429</td>
<td>0.167</td>
<td>2.484</td>
<td>0.013</td>
</tr>
<tr>
<td>PU -&gt; IU</td>
<td>0.482</td>
<td>0.481</td>
<td>0.048</td>
<td>10.112</td>
<td>0.000</td>
</tr>
<tr>
<td>TPACK -&gt; IU</td>
<td>-0.085</td>
<td>-0.102</td>
<td>0.167</td>
<td>0.512</td>
<td>0.609</td>
</tr>
<tr>
<td>TPACK -&gt; PEOU</td>
<td>0.973</td>
<td>0.974</td>
<td>0.012</td>
<td>81.975</td>
<td>0.000</td>
</tr>
<tr>
<td>TPACK -&gt; PU</td>
<td>0.898</td>
<td>0.898</td>
<td>0.010</td>
<td>87.285</td>
<td>0.000</td>
</tr>
<tr>
<td>TPACK -&gt; TSE</td>
<td>0.799</td>
<td>0.800</td>
<td>0.018</td>
<td>43.770</td>
<td>0.000</td>
</tr>
<tr>
<td>TSE -&gt; IU</td>
<td>0.154</td>
<td>0.158</td>
<td>0.032</td>
<td>4.838</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: processed data

The influence of TPACK on teachers’ self-efficacy in this study is significant, with a t-statistic of 43.770 (>1.96). The original value estimate is a positive sample is 0.799, which indicates that the direction of the relationship between TPACK and perceived ease of use is positive. Therefore, the first hypothesis (H1), which states that TPACK has a positive and significant effect on teachers’ self-efficacy is accepted.

The value of the t-statistic variable towards perceived usefulness with TPACK is 87.285 (>1.96). The original value estimate is a positive sample is 0.898, which indicates that the direction of the relationship between perceived usefulness and TPACK is positive. Therefore, the second hypothesis (H2), that states that TPACK has a positive and significant effect on perceived usefulness is accepted.

Table 5 shows that the relationship between TPACK and perceived ease of use is significant, with a t-statistic value of 81.975 (>1.96). The original value estimate is a positive sample is 0.973, which indicates that the direction of the relationship between TPACK and perceived ease of use is positive. Therefore, the third hypothesis (H3), which states that TPACK has a positive and significant effect on perceived ease of use is accepted.

The influence of teacher self-efficacy on intention to use is significant, with a value of 4.838 (>1.96). The original value estimate is a positive sample is 0.154, which indicates that the direction of the relationship between teacher self-efficacy and intention to use is positive. Therefore, the fourth hypothesis (H4), which states that teacher self-efficacy has a significant positive effect on intention to use is accepted.

This is in line with research conducted by Djić et al. (2014), Navidnia (2009) and Senler and Sungur-Vural (2013), which states that awareness, openness, and the suitability of the terms therein is a sense of self-efficacy of teachers make teachers have a tendency towards order and self-discipline, which can foster a higher level of preparation for education, and lead to a greater sense of their capacity to successfully engage with and manage students, and use effective teaching approaches. Teachers who have high confidence have a desire to apply technology in their teaching activities compared to those with low self-efficacy. This is because teachers with self-efficacy are high, are likely to see something of the benefits he would think that the capabilities they have today can be at the level with training, the
things that are considered to be able to support learning activities will be done to make the teaching and learning activities effective. The self-efficacy of teachers has become a major research focus. The level of self-efficacy high teacher has been shown to be associated with positive teaching behaviour, including outstanding class organization, clear expectations and the quality of teaching (Schwarzer & Hallum, 2008). (Emmer & Hickman, 1991) showed an increase in classroom management techniques and promotion of positive strategies to deal with challenging behaviour.

Table 5 shows that the influence of TPACK on intention to use is not significant, because the t-statistic value is 0.512 (<1.96). This is in line with the estimated negative value of the original sample of -0.085, which indicates that the direction of the relationship between TPACK and intention to use is negative. Therefore, hypothesis five (H5), which states that TPACK has a significant positive effect on intention to use is rejected.

Table 5 shows that the influence of perceived usefulness on the intention to use is significant, with a t-statistic value of 10.112 (>1.96). The original value estimate is a positive sample is 0.482, which indicates that the direction of the relationship between perceived usefulness and intention to use is positive. Therefore, hypothesis six (H6), stating that perceived usefulness has a positive and significant effect on the intention to use e-learning technology. The results of this study are in line with those of Jogiyanto (2008, p. 114), indicating that perceived usefulness the most significant and important influential attitudes, intentions and behaviours.

Based on the structural test model, the effect of intention to use is significant, with a t-statistic value of 2.484 (>1.96). The original value estimate is a positive sample is 0.414, which shows that the direction of the relationship between perceived of use and intention to use is positive. Therefore, hypothesis seven (H7), which states that there is a positive and significant impact on the Perceived Of Use Intention To Use e- learning technology. The results are consistent with previous research, which has found that if a system is relatively easy to use, people will be more willing to learn about its features and eventually intend to continue using it.

Results of the study were found today, in line with pendant experts have suggested that the intention to use technology is a form of behavioral acceptance of technology relevant to its perceived ease of use and benefits (Chow et al., 2012; Lee & Lehto, 2013; Teo, 2011). Teachers are more likely to intend to use technology when they experience its ease of use and usefulness in learning and teaching (Teo, 2011). In addition, the self-efficacy of teachers has been considered essential to explain their use of technology in the classroom (Albion, 2001). Besides, pre-service teachersSomeone who applies TPACK tends to have high self confidence with TPACK developed tend confidence and intends to use technology in their teaching (Alsofyani et al., 2012; Liu, 2011; Maeng et al., 2013).

Based on the above discussion, this research has found that TPACK affects teacher self efficacy, perceived usefulness and perceived ease of use of technology. In addition, the study explains that these three aspects affect the intention to use technology in teaching and learning. In the research, it was found that does not influence intention to use; the original values are negative samples which illustrate that the relationship between TPACK and intention to use is negative.

Conclusion

1. TPACK positively influences teacher self efficacy, with a significance level of 43.770 and a positive direction between them relationship.
2. TPACK positively influences perceived usefulness of technology, with a significance level of 87.285 and a positive direction of their relationship.
3. TPACK positively influences the perceived ease of use of technology, with a significance level of 81.975 and a positive direction of the relationship between them.
4. Teacher self-efficacy positively influences the intention to use technology, with a significance level of 4.838 and a positive direction of their relationship.
5. TPACK does not significantly affect the intention to use technology, with a significance level of 0.512 and a negative direction of the relationship.

6. Perceived usefulness positively influences the intention to use technology, with a significance level of 10.112 and a positive direction of the relationship.

7. Perceived ease of use positively influences the intention to use technology, with a significance level of 2.484 and a positive direction of the relationship.

Suggestions

In the era of modernization, everything that is owned in the world of education will be connected to technology without exception. Therefore, teachers should participate in the digital age by applying the method of learning through media technology, as the use of technology is believed to improve the effectiveness and efficiency of teaching and learning. To increase the willingness of teachers to use technology, they can improve their perception of the use, perceived ease of use and confidence. Teachers can use TPACK (Technological Pedagogical Content Knowledge), which is a framework to identify the knowledge of teachers in effective teaching activities with a technological framework.

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