

VIRTUAL LEARNING AS THE ALTERNATIVE MODALITY: ARE THE TEACHERS SKILLED? IN FAVOR? READY? WILLING?

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ABSTRACT. *Although many have perceived the end of the pandemic, it must be understood that the COVID-19 outbreak would not be the last. It is not pessimistic to perceive that there may come other forms of outbreaks that would once more interrupt the natural activities of the society. Coming from this view, the study employed a descriptive-correlational survey design to determine the in-service teachers' attitude toward online teaching, level of technological competence, willingness, and readiness to teach online. This empirical study embarked on quantifying these variables with in-service teachers as target respondents. A total of 232 respondents were sampled and reliable research questionnaires were utilized to measure the latent variables investigated in this study. Interesting findings are disclosed in this study.*

Keywords: Virtual teaching, Attitude, Willingness, Readiness, Technological Competence

INTRODUCTION

The education of the young has remained a primary concern among academicians, government officials, parents, and other stakeholders even during the outbreak of the COVID-19 pandemic. There was a great clamor to continue the learning and teaching process in the ways possible as societies became worried about the learning and skill development of students impacted by the shutdown of schools and suspension of classes.

Numerous means have been explored by different countries and different educational systems. In the Philippines, the educational system employed modules [1]. In this approach, students are given modules that contain both lectures and assessments for different topics across different subject areas. With this, teachers were tasked with developing learning materials that students could read and learn from independently, although teacher support could be sought to some extent. In the modular approach, the parents or guardians of the learners, especially those in the lower years, are expected to guide and teach their respective children.

Another means employed is the hosting of virtual or digital classes. In this approach, both the learners and teachers meet each other in a virtual space in which the conduct of classes is performed. This type of learning environment is highly technology dependent; however, it is nonetheless seen as a plausible substitute for the face-to-face setup.

Teachers were faced with the herculean task of adapting quickly to the new mode of teaching despite the scarcity of logistic support and the absence of much-needed experience and training [2]. It could be inferred that the demand to shift in terms of the modality of teaching forced our educators to leave their comfort zones and explore new things some have never even heard of.

As things are starting to settle and social activities are back in their places once more, educational institutions are reverting to face-to-face classes. However, one thing that needs to be learned is that the academe should institutionalize the offering of online learning as an option and alternative. To this end, it is imperative that research is continuously conducted to determine teachers' competence, attitude, readiness, and willingness to teach in virtual platforms, as these variables impact the quality of their teaching and eventually the learning of students [3, 4, 5].

Ironically, very limited studies have been conducted to determine teachers' technological competence, attitude toward

online teaching, and their willingness to teach virtually as if the COVID-19 break-out would be the last of its kind that would interrupt the education of the young. Hence, this study aimed to determine the technological competence, willingness, readiness, and attitude toward online teaching among teachers who had experience performing digital classes during the pandemic.

Research Questions

This cross-sectional investigation among in-service teachers aimed to answer the following research questions:

1. What is the level of technical competence of the respondents?
2. What is the attitude of the respondents toward online teaching?
3. What is the extent of willingness to teach via the digital platform of the respondents?
4. Are the respondents ready to teach virtually?
5. Is there a statistical interrelationship among the respondents' willingness, readiness, technological competence, and attitude toward online teaching?

Research Design

The study utilized a descriptive survey research design to measure the level of technical competence of the respondents, quantify the extent of their attitude toward online teaching and learning, and determine whether the respondents are willing to teach virtually or otherwise.

Research questionnaires were adopted from [6] in the current study to measure and quantify the investigated variables. The first is Attitude toward Online Teaching, which consists of a total of 30 items spread equally among the three subscales – the affective, cognitive, and conative aspects. The instrument had a declared reliability of Cronbach's $\alpha = 0.862$.

Moreover, the single-factor research tool known as the Teachers' Technological Competence Tool was adapted to survey the level of technical competence of the sampled respondents. The instrument is composed only of 10 items that were answerable on a four-point Likert scale. This validated research tool was declared to have a reliability of Cronbach's $\alpha = 0.898$.

Taking inspiration from the approach employed by Ricohermoso two questions were included [9]. The said question asked the respondents whether they are willing to teach via digital format and whether they are ready to teach digitally, and this question is answerable with yes and no.

Respondents of the study

The study is directed toward in-service teachers as the population of interest. A total of 232 high school teachers form part of the sample size of the research investigation. The sample is dominated by females (157 or 67.7%), which supports earlier established claims that the teaching profession is feminized, as discussed in previous studies involving either preservice or in-service teachers [7, 8].

RESULTS AND DISCUSSION

In-service Teachers' Technological Competence

The responses of the in-service teachers across the ten-item instrument were coded and encoded in a spreadsheet. The data were then transferred to SPSS to enable statistical analysis. To identify the technological competence of the respondents, the mean and standard deviation were computed.

Table 1.0: Technological Competence of the respondents

Variable	M	SD	Interpretation
Technological Competence	2.443	0.731	Somehow Competent

The descriptive analysis of the data provides that the respondents of the study perceived themselves to be only 'somehow competent.' This means that the teachers remain to attain full technological competence. This suggests that the respondents lack the needed skills to operate or utilize some technologies and technological applications needed to conduct online classes.

This result supports and contradicts a previously conducted investigation. On the one hand, the finding that teachers are only 'somehow competent' counters the finding of [2]. In this study, the teachers claimed to be technologically competent. On the other hand, the study echoes the results disclosed by [9].

This finding suggests that teachers want the needed training for them to perform effectively. One reason for the identified competence is that the majority of the teachers surveyed were not focusing on the use of online platforms to deliver education. It is noted that the majority explored other means, such as the use of modules and worksheets. Because of this, the need to upscale the technological skill of the teachers did not come to the fore.

Attitude toward online teaching

The responses from the research tool quantifying the latent variable attitude were coded and encoded analysis. The items under each subscale were grouped together, and their mean score was computed. The same was performed across other subscales. To determine the overall attitude, the mean score for each subscale was added with the rest of the mean scores of the other subscales and divided by three. Table 2 presents the analysis of the results.

Table 2.0: Teachers' attitude toward online teaching

Variable	M	SD	Interpretation
Attitude toward online teaching	2.381	0.476	Somehow Negative Attitude

From the presented analysis, it could be determined that the teachers exhibit an attitude that gears toward being negative. This means that the respondents held beliefs and emotions that do not favor the realization of classes on online or digital platforms. Moreover, it is supposed that the respondents do not

perform tasks that could lead to their becoming better and more effective digital hosts of classes.

The specific finding does not conform with the findings of similar and previously conducted investigations (e.g.[4, 2]), which found that the respondents manifested a 'somehow positive attitude'. The study of [4] was with language learners, while that of [2] was with content teachers. It is perceived that the respondents in the study of [4] were exhibiting a 'better' attitude toward the alteration of the teaching and learning modality because the respondents assumed a receiving and passive role in the shift. However, the teachers were the ones making greater adjustments and were asked to leave their comfort zones to which they had been accustomed for the past years.

The teachers were provided with greater burden and demand, which is seen to have served as the reason for the less favorable attitude.

Respondents' willingness to teach online

Table 3 provides the descriptive analysis of the in-service teachers' responses to the question of whether they are willing to teach online.

Table 3.0: Technological Competence of the respondents

Variable	M	SD	Interpretation
Willingness to teach online	1.754	0.431	Willing

The analysis shows that, in general, teachers are willing to teach digitally. This result suggests that teachers are not inhibited from performing online classes. This is because it appears to be both a viable and practical option, and they could explore simply continuing the learning of the young [4, 5].

The teachers, despite reporting a lack of the needed technological competence and exhibiting a non-favorable attitude toward online teaching, reported being willing to teach in a technological environment that is not familiar to them.

This speaks much of their commitment to continuously render their service for the sake of the learners even during uncertain times.

Teachers' readiness to teach online

Table 4 presents the descriptive analysis of the responses of the respondents when asked whether they are ready to teach online.

Table 4.0: Respondents' readiness to teach online

Variable	M	SD	Interpretation
Readiness to teach online	1.48	0.501	Not Ready

The analysis of the data shows that, collectively, the respondents perceived themselves as not yet ready to perform online teaching. This means that the respondents believe that they are yet to gain the needed skill experience to render them confident or ready to perform online teaching.

This particular result mirroring the extent of readiness of the respondents relates to the claim of previous studies that teachers were hastily asked to shift without training and transition [4].

It could be argued that the outbreak has not provided anyone with the needed preparation to adapt to the sudden changes that have altered all aspects of life, especially the delivery of education among our learners. It could be emphasized, however, that despite being well intended, the efficient

delivery of online classes requires skills that teachers must possess.

Interrelationship among variables

Table 5 shows the analysis between and among the variables investigated in this study. The data were treated with an inferential statistic for the relationship known as the Pearson product-moment coefficient.

Table 5.0: Interrelationship among variables

Variables		p value	r-value
Attitude toward online teaching	Technological Competence	0.000*	0.529
	Readiness to teach online		0.306
	Willingness to teach online		0.240
Readiness to teach online	Willingness to teach online	0.094	0.401
	Technological Competence		0.230
Technological Competence	Willingness to teach online		0.110

*Significant at alpha = 0.001

For the variables attitude toward online teaching and technological competence, it was determined that there is a statistical relationship between the variables and that the relationship is identified to be direct. This means that the respondents who manifested a favorable attitude toward online teaching were also those with a high level of technological competence. This echoes the findings of [4], who also claimed to have found a statistically significant relationship between the variables. In addition, the relationship determined is characterized to be moderate.

With respect to the variable attitude toward online teaching and respondents' readiness to teach online, the inferential analysis shows that there exists a significant association between the variables and that the relationship is both positive and weak. This means that the respondents who possess favorable attitudes toward online teaching are the same respondents who disclosed themselves to be ready to teach online.

Regarding the variables attitude toward online teaching and willingness to teach online, the study found a significant association between the variables. The association is direct or positive but weak. This implies that the teachers who exhibit a positive attitude toward online teaching are the ones who reported being willing to teach online.

Between the variables readiness to teach online and willingness to teach online, the analysis shows that there is a significant relationship between the two. Furthermore, the relationship is positive, which means that the respondents who claimed to be ready to teach online are those who were willing to teach online. Conversely, the respondents who reported that they were not ready to teach online were those who disclosed that they were not willing to teach online. In addition, the statistical relationship identified was determined to be moderate.

Oddly, between the variables of technological competence and willingness to teach online, the analysis shows that there is no statistical relationship between the variables. This means that the willingness of the respondents to teach online is not influenced by technological competence and vice-versa.

CONCLUSION

Although many have perceived the end of the pandemic, it must be understood that the COVID-19 outbreak would not be the last. It is not pessimistic to perceive that there may come other forms of outbreaks that would once more interrupt the natural activities of the society.

Coming from this view, there is a need to determine teachers' technological competence, attitude, willingness, and readiness to conduct classes virtually, as it seems to be the viable solution employed by numerous academic institutions around the world.

Teachers were tasked with hosting classes in a digitally enriched environment without sans both experience, skill, and exposure. However, the teachers proved to be willing to be situated in an uncharted domain for the sake of the learners. This does not mean nor should be taken to mean that everything is well. The success of online learning is dependent on numerous factors, such as teachers' technological competence, their attitude toward the digital platform, and their willingness and readiness to teach virtually.

This empirical study embarked on quantifying these variables with in-service teachers as target respondents. Knowing that online teaching is something here to stay even after the resumption of face-to-face classes, this survey research aimed to provide essential baseline information that future research could build upon to better equip and prepare our teachers for the inevitable digitalization of classes.

The study found that teachers need to be further trained, and their competence in the use of technology, both software and hardware, should be improved. This implies that administrators who do not provide needed training to teachers to better enhance their technological skills are doing an act of disservice to teachers at the frontline of the educational system. The adage that one cannot give what one has not possessed appears to be a truthful reflection of the case at hand. When teachers are asked to teach virtually without much-needed training and preparation, it is likened to having sent soldiers to war without bullets or guns. In cases such as this, nothing is won despite great and well-meaning intentions.

Moreover, the teachers manifested a non-favorable attitude toward teaching online and were not ready to teach online. These findings are not surprising, as the teachers were so used to teaching in the traditional setup that teaching virtually is something that is new and uncommon. Charged against human nature, one is expected to manifest apprehensions, doubt, and even anxiety when asked to do something not usually performed. The novelty of the alternative modality has left teachers with concerns. From this, lessons must be taken. Teachers must be continuously exposed to advancements in technology integration into education. For the surveyed teachers, online teaching is something new; however, in the grand scheme of things, it is something that is relatively common and ordinarily practiced in other parts of the globe.

Finally, the study identified that there is a significant interrelationship among variables, with the variables technological competence and willingness to teach online being an exception. This means that the identified factors should be carefully accounted for and considered in the conduct of various activities, such as curriculum revisions and enrichments, realization of teacher training activities, conduct

of on-the-job training, and in-service professional development.

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