

Evaluation of Higher Education Teachers' Attitudes Toward Online Learning During the Covid-19 Pandemic

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Abstract

COVID-19 pandemic has forced educational institutions across all countries to implement alternative methods of teaching—one of which is the online learning—so that education does not get interrupted. In fact, with the prolonged existence of the COVID-19 virus, online learning will continue to be in effect in most countries including the Philippines. It is within this perspective that the researchers have decided to conduct this study to evaluate the attitudes of teachers in the higher education toward online education. A quantitative approach was applied, with the use of a validated Test of e-Learning Related Attitudes (TeLRA) scale as part of the pen-and-paper survey questionnaire. Out of the 40 higher education teachers at Saint Ferdinand College, City of Ilagan, Isabela, 22 (55%) have positive attitudes toward online learning, while 18 (45%) have negative attitudes. This study further established a correlation between the teachers' attitudes toward online learning and their demographic as well as online teaching profiles. The findings revealed that there is a significant relationship between the respondents' attitudes toward online learning and their demographic profiles, such as gender and age, but found no correlation with their educational attainment, years of teaching in SFC, and their current designations. Likewise, this study found no significant correlation with the respondents' attitudes toward online learning and their overall online teaching profiles which include familiarity with using computers, previous online teaching experience prior to pandemic, gadget/s used in online classes, internet connectivity and learning management system (LMS) used during online classes. In general, the results of this study are deemed relevant not just for higher education teachers but all for education stakeholders for further advancement in the continuous implementation of online education.

Keywords

Covid-19, higher education teachers, online learning, online teaching, TeLRA scale.

INTRODUCTION

The onset of the COVID-19 pandemic has considerably affected the educational system of every country in the world, causing disturbance and prompting schools to close and shift their traditional face-to-face (F2F) classes to alternative teaching methods. The Responses for Educational Disruption Survey (REDS) of the UNESCO 2022 [1] initially conducted a study on how the teaching and learning were impacted by this pandemic, and what were the actions taken by various education stakeholders in retaliation to this educational disturbance. Here in the Philippines, the Department of Education [2] and the Commission on Higher Education [3] suggested the implementation of distance learning, demonstrating the use of flexible learning method which varies from blended, online, remote, modular, and a mixture of all these, particularly during this pandemic era [4]. Most educational institutions, however, have adopted the online education.

The implementation of online teaching and learning has already been encouraged for many years [5]. Even before COVID-19, several research studies have already been conducted on the effectiveness of this modality although most of these were concentrated on the higher education

level. The pandemic has therefore advanced the need for online teaching and learning to a greater extent including all levels of education [6]. Some research studies have found out that there is no significant difference on the effectiveness between traditional F2F classes and online learning [7], and that student performance is not affected by the way classes are being conducted [8]. Furthermore, it was found out that students even performed better in the online environment [9]. On the other hand, some studies revealed that students prefer the traditional learning and that it is more effective than the online modality [10].

However, all these studies were conducted based on the perceptions and attitudes of students toward online learning. There are various research studies that explore students' opinions about online education and how efficient it is as part of their learning, but there have been very few investigations on the teachers' strategies of teaching when they began adapting to the online education because of the pandemic [6]. While there were some studies that investigated teachers' perceptions about online learning and the challenges they encounter particularly after COVID-19 began, it was found out that some, if not most, of the teachers did not find this modality effective [11] [12] [13]. Thus, it is the need of the hour to evaluate not just the opinions but also the attitudes of

teachers toward online learning.

ATTITUDES OF TEACHERS TOWARD ONLINE LEARNING

Attitude is a theoretical concept formulated by psychologists for describing any concerned event. It is an extremely essential feature of an individual's character that affects the conduct of another [14]. It entails judgment on anything that covers cognitive, affective, and behavioral experience [15]. Attitude also deals with the positive or negative emotions of an individual while doing the intended conduct [16]. In other words, it involves the likelihood to execute and agree to a certain behavior [17].

There have been limited studies on the attitudes of teachers toward online education [18] [19] [20] [21]. Thus, very less information exists on this aspect despite the fact that it is also significant to evaluate how teachers favor online teaching [22]. It is said that the successful implementation of online teaching and learning is largely supported by the attitudes of teachers toward it [23] [24]. There are numerous reasons that may affect a teacher's attitude toward online teaching like demographic characteristics such as gender, age, educational level [25] [26] [27] [21] and others. Likewise, some teachers also identified other problems influencing their attitudes in the implementation of online teaching such as the use of internet and availability of network, accessible facilities, learning plans and assessment, and collaboration with the students' guardians [29]. Furthermore, insufficient organized instructional programs accompanied with digestible materials were noted to harm teachers as well as students with overloading and thus impede the achievement of successful learning [29].

Thus, with the COVID-19 still in existence and educational institutions extending the implementation of online education, it is but timely and relevant to conduct a study that will evaluate the teachers' attitudes regarding the ongoing implementation and practices of online learning. Hence, this research aims to provide an insight on the attitudes of teachers, particularly in the higher education, toward online learning which is guided by the following questions:

1. What are the attitudes of higher education teachers toward online learning?
2. Is there a significant relationship between the teachers' demographic profiles and their attitudes toward online learning?
3. Is there a significant relationship between the teachers' online teaching profiles and their attitudes toward online learning?

METHODOLOGY

Research Design

This study applied a quantitative design using a survey method to collect data from the respondents. The Test of e-Learning Related Attitudes (TeLRA) scale has also been

utilized for this study's questionnaire. The quantitative approach is deemed appropriate to evaluate the attitudes of teachers toward online learning, as well as to determine if there is a significant relationship between (1) the teachers' demographic profiles, and (2) their online teaching profiles with their attitudes toward online learning.

Participants of the Study

The TeLRA scale was administered to all higher education teachers of Saint Ferdinand College, City of Ilagan, Isabela. There are 40 teachers who successfully responded to the pen-and-paper questionnaires, 29 of which are females and 11 are males.

Instrumentation

This research utilized the TeLRA scale which was developed and validated by Kisanga and Ireson [30]. The instrument's reliability was initially measured using Cronbach's coefficient alpha and scored 0.857 (N = 258) [31]. It is composed of 36 questions, all of which are measured on a 4-point Likert scale ranging 1:- strongly disagree; 2: disagree; 3: agree; and 4: strongly agree. Before answering the TeLRA scale, the teacher respondents were also asked of their demographic profiles such as gender, age, educational attainment, years of teaching in SFC, and current designation. Likewise, the respondents were also asked of their online teaching profiles such as familiarity with using computers, previous online teaching experience, gadgets/laptop used for online teaching, stability of internet connectivity, and learning management system (LMS) used during online classes. In order to determine the significant relationship between the teachers' attitudes and their profiles and teaching experience, a Pearson Chi-square c-test was applied.

Data Gathering Procedure

The following were the procedures undertaken during the conduct of this study. First, a permission was sought from the administration of the institution, particularly for the data gathering process. Second, the researchers asked for permission from the teachers of the higher education level to conduct the study. Although this research was not subjected to a research ethics review committee, the teachers' responses were covered under the Data Privacy Act of 2021. Third, the survey was done physically with the pen-and-paper questionnaires. Last, the responses were collated and recorded for statistical treatment.

RESULTS AND DISCUSSIONS

Higher Education Teachers' Demographic Profiles

Table 1 shows the frequency distribution of the respondents' profiles. As presented in the results, the number of female teachers is more than the males. The highest age group are those belonging to the bracket 21–30 years. In terms of the educational attainment, most of the higher education teachers have already completed their master's

degrees. Furthermore, the table presents that majority of the teachers have been with the institution for not more than five years. Last, the highest number of respondents have the Instructor designation.

In conclusion, Table 1 presents that majority of the higher education teachers are females, between ages 21 and 30 years, have completed their master’s degrees, have five years or less teaching experience in SFC, and are currently holding Instructor positions.

Table 1. Demographic profile of the respondents

		Frequency (f)	Percentage (%)
Gender	Female	29	72.5
	Male	11	27.5
Age	21–30	16	40.0
	31–40	5	12.5
	41–50	12	30.0
Educational attainment	51 and above	7	17.5
	Bachelor’s degree	18	45.0
	Master’s degree	20	50.0
	Others	2	5.0
Years of teaching in SFC	0–5	19	47.5
	6–10	6	15.0
	11–15	1	2.5
	16–20	6	15.0
	21–25	3	7.5
	26 and above	5	12.5
Current designation	Instructor	19	47.5
	Assistant professor	3	7.5
	Associate professor	18	45.0

Higher Education Teachers’ Online Teaching Profiles

Table 2 shows the frequency distribution of the respondent’s online teaching profiles. Based on the results, majority of the higher education teachers are quite knowledgeable in computer operations. It also indicates that most of them had no online teaching experience prior to the pandemic period which means that the sudden shift to online classes during the COVID-19 era forced them to apply this modality. Since most of the teachers are quite technologically equipped, they are using laptop/desktop for their online classes with backup usage of smartphones. Furthermore, all the higher education teachers in SFC are reporting to school and hence, they find the internet connectivity to be fair. Last, the teachers are mostly using Google Meet during their synchronous classes, with alternative options of employing Zoom.

In conclusion, Table 2 presents that the online teaching profiles of higher education teachers in SFC include majority of teachers who have intermediate skills in computers but have no previous experience of online teaching prior to pandemic, who are mostly using laptop/desktop for online classes, who often experience fair internet connectivity during their online classes, and who use Google Meet as the primary LMS.

Table 2. Online teaching profiles of the respondents

		Frequency (f)	Percentage (%)
Familiarity with using computers	Beginner	–	–
	Intermediate	28	30.0
Previous online teaching experience prior to pandemic	Advanced	12	70.0
	Yes	13	32.5
Gadget/s used for online classes (<i>click all that apply</i>)	No	27	67.5
	Laptop/desktop	34	85.0 (1)
	Smartphones	31	77.5 (2)
Internet connectivity during online class	Tablet/ iPad	6	15.0 (3)
	Poor	–	–
	Fair	25	62.5
LMS used during online classes (<i>click all that apply</i>)	Strong	15	37.5
	Zoom	22	55.0 (2)
	Google Meet	27	67.5 (1)
	Moodle	6	15.0 (4)
	Schoology	13	32.5 (3)

Attitudes Of Higher Education Teachers Toward Online Learning

In order to assess the attitudes of higher education teachers toward online learning, this study determined the percentage of the respondents who have positive (those who accept) and negative (those who reject) attitudes toward online learning. Hence, the teachers’ attitudes were computed by getting the summation of all the scored responses entered by the teachers in the TeLRA scale questionnaire, then the scores were compared with the median score [19] which, for the purpose of this study, was computed to be 95. Those respondents who were able to obtain a score greater than or equal to 95 were noted to have a positive attitude, while those who scored lower than the median were observed to have a negative attitude. Likewise, it is perceived that those who have positive attitudes toward online learning were able to attain an average score of either 3 (agree) or 4 (strongly agree); on the other hand, those who have negative attitudes have average scores of either 1 (strong disagree) or 2 (disagree) [32].

Table 3. Teachers’ positive and negative attitudes toward online learning (N = 40)

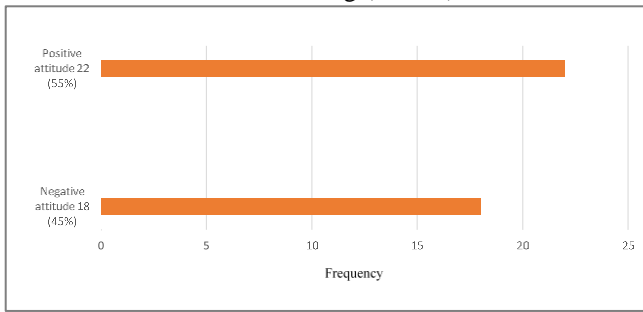


Table 3 shows that out of the 40 higher education teachers, 22 (55%) have positive (accept) attitudes toward online learning while 18 (45%) have negative (reject) attitudes. This data implies that there are more than half of the teachers in the higher education level at SFC who accept the implementation of online teaching and learning. The positive attitudes can be credited to their knowledge and experience about using computers [19]. This is supported by the respondents’ online teaching profiles presented in Table 2 which show that most of the teachers have intermediate skills in using computers. On the other hand, the negative attitudes of teachers can be attributed to their initial hesitation and challenges encountered while implementing online education. A study by Sridevi et al. [33] also showed that the use of new technology contributes to the negative attitudes of teachers toward online teaching and learning. Nonetheless, a great number of teachers, particularly nowadays, believe that the integration of technology in teaching can improve the quality of student learning [34] [35]. As Rogers [36] has put it, the awareness of online education takes a very important part in deciding whether to accept or reject it.

Relationship of Teachers’ Demographic Profiles and their Attitudes Toward Online Learning

Table 4. Significant relationship between the higher education teachers’ demographic profiles and their attitudes toward online learning

Profile	Probability	Analysis	Decision	Remarks
Gender	.047	C < .05	Reject H0	There is significant relationship
Age	.050	C = .05	Reject H0	There is significant relationship
Educational attainment	.109	C > .05	Accept H0	There is no significant relationship
Years of teaching in SFC	.485	C > .05	Accept H0	There is no significant relationship
Current designation	.528	C > .05	Accept H0	There is no significant relationship

Table 4 shows the significant correlation between the teachers’ demographic profiles and their attitudes toward online learning using Pearson’s Chi-square C-test at 0.05 level of significance.

As revealed in the table, the probability values for the teachers’ gender and age were less than and equal to .05. Thus, the null hypothesis was rejected. It implies that there is a significant correlation between the teachers’ gender and age and their attitudes toward online learning. The table further shows that the significance C values for the teachers’ highest educational attainment, years of teaching in SFC, and their current designation were greater than 0.05. Hence, the null hypothesis was accepted. It infers that there is no significant correlation with the teachers’ highest educational attainment, years of teaching experience in SFC, their current designation and their attitudes toward online learning.

Results indicated therefore that the respondents’ attitude toward online learning are not affected by their highest educational attainment, years of teaching in SFC, and their current designation; however, their gender and age do significantly affect their attitudes toward online education.

Relationship of Teachers’ Online Teaching Profiles and their Attitudes Towards Online Learning

Table 5. Significant relationship between the higher education teachers’ online teaching profiles and their attitudes toward online learning

Profile	Probability	Analysis	Decision	Remarks
Familiarity using computes	.645	C > .05	Accept H0	There is no significant relationship
Previous online teaching experience prior to pandemic	.194	C > .05	Accept H0	There is no significant relationship
Gadget/s used for online classes	.169	C > .05	Accept H0	There is no significant relationship
Internet connectivity during online class	.485	C > .05	Accept H0	There is no significant relationship
LMS used during online classes	.189	C > .05	Accept H0	There is no significant relationship

Table 5 shows the significant correlation between the teachers’ online teaching profiles and their attitudes toward online learning using Pearson’s Chi-square C-test at 0.05 level of significance.

As revealed in the table, the significance C values for all the profiles were greater than 0.05. Hence, the null hypothesis was accepted. These indicate that there is no significant correlation with the teachers’ online teaching profiles and their attitudes toward online learning. Thus, the respondent’s online teaching profiles and their attitudes

toward online learning are not affected by their familiarity with using computers, previous online teaching experience prior to pandemic, gadget/s used for online classes, internet connectivity during online class, and LMS used during online classes.

CONCLUSIONS AND RECOMMENDATIONS

The present study revealed much about the attitudes of higher education teachers of Saint Ferdinand College, City of Ilagan, Isabela toward online education. It is noted that more than half of the respondents have shown positive attitudes toward online learning, and this is influenced by the teachers' ability to use technology as their primary means to conduct online classes. This coincides with the study by Kisanga [19] which found out that teachers' technological experience has an important role in establishing a positive attitude among teachers toward online teaching and learning. Furthermore, his study as well as Ajzen and Fishben's [37] study suggested that the more familiar teachers are toward the use of computers, the more positive attitudes can be perceived. On the other hand, the teachers' negative attitudes as shown in the results can be attributed to the teachers' lack of trainings and other technological support for online teaching. This is supported by the study of Melouka and Mohammed [35] which concluded that teachers are still hesitant in conducting online classes because of insufficient trainings. Thus, to encourage the rest of the teachers to discontinue feeling negative attitudes toward online education, seminars and workshops should continuously be conducted by the institution for the teachers to be more equipped with the knowledge and processes about online education [23]. Furthermore, teachers need to be included in the instructional planning and evaluation so they can be motivated toward creating more online activities [19]. Results of this study also showed that the gender and age of teachers have significant impact on their attitudes toward online learning. This concurs with the studies conducted by several researchers [38] [39] [40] [26] indicating correlation between the teachers' gender and their attitudes toward online learning, further specifying that the male teachers have higher positive attitudes than the female teachers. However, this study negates other researches which showed that gender and age have no statistical correlation with the teachers' attitudes toward online education [26] [19] [20]. Other demographic profiles in this study which include years of teaching experience, educational attainment, and current designation have no significant relationship with the teachers' attitudes. It supports the study by Kisanga [19] which showed insignificant association, specifically between the years of experience, and their attitudes toward e-learning. Conversely, it contradicts the study conducted by Pitre et al. [41] which implied an association between these two variables.

This study further showed that the teachers' overall online teaching profiles have no significant relationship with their attitudes toward online education. However, the research conducted by Chandwani et al. [38] concluded that

familiarity with online learning tool(s) has correlation with teachers' attitudes toward online teaching. Furthermore, Edo [23] concluded that there is a strong association between teachers and the use of technology for e-learning. From the results of this study however, it is evident that majority of the teachers have intermediate skills in using computers and this does not influence their attitudes toward online teaching. Likewise, it can safely be deduced that although a greater number of the higher education teachers did not have any online teaching experience prior to pandemic, it does not significantly affect their attitudes toward online teaching. But as per the study conducted by Cs [39], the lack of prior knowledge about online education affects the attitudes of most teachers. Last, the other online teaching profiles of teachers which include the gadget/s used, the fair internet connectivity, and the employment of LMS in conducting online classes also do not influence the teachers' attitudes. Rahim [20] however stated that LMS should be enhanced so as to develop more the teaching and learning practices of the teachers as educational technology has already progressed.

In conclusion the positive attitudes among higher education teachers toward online learning should be enhanced, if not maintained. It is also suggested that continuous trainings and seminars should be conducted, and that teachers should be involved in the curriculum planning to develop more activities for online instruction. It is further recommended that teachers should be given ample time to formulate collaborative plans to come up with their own designs of teaching resources and discover other meaningful methods on how the LMS can be further utilized for their online teaching [20]. This is to ensure that the continuous implementation of online education will be improved further, which will make online learning more worthwhile for teachers and students alike.

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