


Teachers' ability, attitude, and acceptance towards distance learning

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Citation: Reyes, J. D. C. (2023). Teachers' ability, attitude, and acceptance towards distance learning. *Journal of Digital Educational Technology*, 3(2), ep2307. <https://doi.org/10.30935/jdet/13349>

ARTICLE INFO

Received: 13 Apr. 2023

Accepted: 18 May 2023

ABSTRACT

The method that was used in this study was a descriptive-cross-sectional method of research in which the primary focus for the research is to describe some phenomenon or to document its characteristics. The respondents of this descriptive-cross-sectional study were all the teachers from Division of Pampanga high schools, Philippines for the school year 2022-2023. Total enumeration was employed in the study. This study shows that teaching ability towards technology as to basic computer skills, internet or online skills, software productivity skills, and training attended revealed no significant relationship to teaching styles and strategies, confidence, motivation, and time management as their attitude towards a successful online teaching. This means that the ability of the teachers on technology do not significantly affect their attitudes towards a successful online teaching, and finally, relationship of the teachers' attitude towards a successful online teaching and their acceptance on distance learning were statistically shows not significant. After having a series of computation, analysis, and interpretations, the following statements are hereby suggested: (1) a deeper understanding about the teachers' readiness on distance learning should be qualitatively evaluated and (2) a study on the reasons on the response of the teachers in terms of their readiness as compared to their profiles is hereby suggested for further research.

Keywords: distance learning, teachers' ability, teachers' attitude, teachers' acceptance

INTRODUCTION

In the developing country like the Philippines, where food, shelter, and clothing were the concern of most people, the access to information and communications technology (ICT) presents a significant role among educators in delivering instruction through distance mode in the midst of the COVID-19 pandemic.

In relation, issues such as availability of the technology, pedagogical concerns, geographical location, access to internet, lack of knowledge and skills to use ICT, and financial constraints are some of the major problems that may be encountered in delivering distance learning instruction in the Philippines (dela Pena-Bandalaria, 2007).

The mandatory of the physical presence in the traditional education promotes interactive interaction between the student and teacher to better understand the contents and opportunities to learn with peers. However, due to some instances such as the COVID-19 pandemic, many students will find it hard to attend their regular classes. Hence, distance learning concept is an alternative avenue that will provide learners the opportunities to learn in a flexible and easy way (Afzal et al., 2015).

This distance learning promotes electronic learning approach, which is a computer generated and web-based learning technology that provides educators from different institutions to access the delivery of instructions for flexible learning activities (Afzal et al., 2015).

Through electronic learning, which is an advanced model of distance learning, educators may be able to facilitate learning using electronic machines and media even for a substantial amount of instruction offered to learners.

This kind of educational approach is an open learning that is used as intermediate mode between customary student-centered learning and teacher-centered learning, which enable learners to submit and learn from online without their physical presence in the traditional educational institution.

The difference between the traditional and online teaching differs according to context. The context of teachers' readiness for the complex and challenging role to design an effective learning environment with technology requires persistence and diverse knowledge systems, which is not easy or straightforward process. It demands trainings to be able to adopt practices incline to technological pedagogical knowledge (Afzal et al., 2015; Perraton et al., 2002).

However, due to online instruction, these norms had changed into burden that placed many teachers and students to prepare a more structured subjects and less comprehension on the materials. It creates impact on the actual classroom research and project activities.

Online distance education pedagogy is increasingly blurred. Its course development and delivery are being deconstructed and reinvented, which received renewed emphasis to the roles of teachers in designing pedagogical learning environment. These designs are resource-based and online discussion based created during synchronous and asynchronous online collaborative activities (Abrioux, 2001; Anderson, 2008; Bates, 2008; Calvert, 2005; Garrison, 2009; Haughey et al., 2008; Jara & Fitri, 2007; Naidu, 2007; Tait, 2010).

On the other hand, technology allows a more flexible time schedule and communication was made through email and chat rooms. Technological advancement requires teachers to become technologically prepared and aware on the new ways of delivering and assessing learners for online teaching (Pagliari et al., 2009). The competencies in teaching in a classroom setting is not different from what to teach online hence, teaching experience towards this new avenue of instruction is a major requirement to adopt in the current situation (Bawane & Spector, 2009). This online instruction requires technological access, confidence, training, teaching styles and strategies, abilities, motivation, and time management to engage learners through virtual classroom practices (Easton, 2003; Ko & Rossen, 2017; Wray et al., 2008).

By virtue of new technological advancement, many schools offer distance education from lower through higher education, from public or private, and non-profit to profitable institutions (Honeyman & Miller, 1993). The demands of technology as it rapidly developed imply changes in delivering teaching and learning process. This changes imposed the availability of distance learning, where learners and teachers are physically distant (Sadeghi, 2019).

This unexpected switch on online environment requires every individual in the academe to be technology ready. Teachers need to be trained on how to prepare courses and demand changes on teaching styles in congruence to new learning format. These bear much more time to being attached to the computer. Although it is more convenience, yet more time to prepare (Dringus, 2000; Keyter, 2002).

The use of ICTs is the answer to the challenges of educational changes in our current situation. This changes needs to provide policies to make technologies effective. The fast development of technology contributes widely to the creation of pedagogical practices in the teaching and learning process, which mediate distance learning to offer great flexibility to teaching and acquiring knowledge. This circumstances will allow learners to receive knowledge anytime and anywhere with the use of printed, audio, computer, and video platforms.

How the distance learning is perceived by educators and how it is designed, managed, and delivered is due to the expansion of the world wide web that falls in transmitting, processing, and storing information. The implementation of various teaching applications reflects the fact that teaching

and learning removes collaboration and participation. As one of the rapid growing fields in education and training, its mission is to include greater dimensions of openness and flexibility for social and economic development (Pachler & Daly, 2011).

This distance learning promotes interaction and dialogue to bridge the distance between the students and the teachers, which can be provided for learners in diverse circumstances through a vast array of interactive and multimedia learning resources to design learning environment. These interactive and multimedia learning resources are online portals supports the increasing complex pedagogical structures for both independent and collaborative learning (Anderson, 2008; Bates, 2008; Calvert, 2005; Garrison, 2009; Haughey et al., 2008; Tait, 2010).

These pedagogical changes in the distance education allow teachers to rethink all of what they do. Also, this changes requires a very challenging task not just to teachers but in all educational institutions (Abrioux, 2001; Sharpe et al., 2006).

The shift from teacher-focused to learners-focused knowledge generated approach is the impact of technology on teaching practices. Some teachers see online teaching as a new vehicle for transmitting knowledge and challenges that demands changes on teaching models. Those teachers who use constructivist learning models might be assumed to develop interactive features of online software for instruction (Armellini & Jones, 2008; Burge & Polec, 2008; Swan, 2010).

To implement distance education effectively, according to Belanger and Jordan (2000), teachers should receive trainings and practice, and learning should be carefully plan. This may include identification of needs assessment, careful production of valuable and beneficial instructional materials, and defining instructional goals.

Identification of needs assessment includes the level of acceptance, teachers' ability, and teachers' attitude on distance learning. The focus is to set standards in determining what distance learning could contribute and what trainings are needed for teachers to be able to implement distance education. Teachers need to be trained for such purpose to ensure that teachers have enough knowledge in terms of technological ability.

Distance learning can be delivered in many different platforms. But always remember that selecting materials always depends on the kind of students, skills, ability, learning style, type of subjects or content to be taught, and available software to handle and navigate the platform.

REVIEW OF RELATED LITERATURE AND STUDIES

Distance education in the Philippines has been established for more than five decades and had a major transformation in both form and content. Radio was the first distance education instrument that was used originated in Farmers' School-on-the-Air (FSA) at Iloilo City during 1952 (Flor, 1995). The aim of this program is to educate farmers, out of school youths, housewives, and others living in the rural areas.

Recognizing the essence of distance education, some universities and colleges started to offer distance learning approach to their graduate students and face-to-face was a schedule basis for consultation and other clarification. The high demands of distance learning became the avenue of many universities and colleges in the Philippines, yet many Filipinos remain to choose the regular hours of attending school due to lack of materials needed for distance learning and to the belief that face-to-face learning is more effective than distance education (dela Pena-Bandalaria, 2007).

Virtual economy is the fact that emphasizes the importance of knowledge on globalization and economy networking. Knowledge of enriched workers are important for education to achieve and supplement new ideas. This is necessary for distance learning, where education is not available to a large number of population (UNESCO, 2010).

Today, the lack of distance learning program creates vast changes in every institution, and this implies institutional incompetence (Barajas, 2002; Keyter, 2002). Distance learning as the part of the mainstream of educational system all over the world contributes to social and economic development (Casarotti et al., 2002).

Distance learning approach offers flexible learning opportunities among learners through open access education and training from the constraints of time and place. Its potential impact has been emphasized through the fast development of internet-based technologies involving implementation of ICT for more than one location (Honeyman & Miller, 1993; Webster & Hackley, 1997).

Distance learning perhaps connotes online transactions, where students learn, study, submit works, and assessed. According to Sadeghi (2019), distance learning can be done anytime and anywhere as long as there is an availability of Internet. Through the internet, learners stay connect from school and teachers, which provides access to communicate and submit requirements in distance (Velasenko & Bozhok, 2014).

Distance education is the current reality that promotes challenges and opportunities in all educational institutions, which provides options to learners on when, what, where, and how to learn. Yet this raised questions if learning from these modalities will be efficient and effective. Questions such as equality of opportunity to individual leads to some researchers to continually develop and strive to improve activities through online education activities (Kor et al., 2016; Reiser & Dempsey, 2012).

Compared to traditional classroom setting, distance learning requires advance planning, sacrifices to get things done on time, late feedback on students' performance, where teachers need more time to review the work of the learners. Studies shows that distance learning might lower the level of instructions among learners (Belanger & Jordan, 2000).

Learning from home, work-sites, and other community centers became possible due to modern communication technologies. Many educational institutions adopted this kind of system to help people with jobs, family responsibilities, handicaps and even those people living in some isolated areas (Clegg et al., 2003; Peters, 1973; Traxler, 2015; Zigerell, 1984).

Delivering of education for large audiences, offering the combination of education with work, balancing inequalities between age groups, and geographical expansion of educational access are some other related benefits of distance education. Many studies shaped the importance of distance learning such as its effectiveness as an online course and web application for the improvement of distance learning environment (Permalla et al., 2011), meeting the expectations of the students by redesigning online courses (Cinar & Torenli, 2010), general positive attitude of students towards web-based distance learning (Isik et al., 2010), usefulness and challenging characteristics of distance education (Song et al., 2004), and factors that affects students learning in internet-assisted versus traditional learning.

The beliefs of the teachers to teach online is congruent to what they do and contribute to the demands of the faculty development (Northcote et al., 2015; Wallace, 2004). In the study of Northcote et al. (2015) on the teachers' online ability showed that they have the lowest self-efficacy on selecting resources but with high self-efficacy on the learning objectives alignment, assessment strategies, and learning activities. While in the study of Aydin (2005) showed that teachers have higher perceptions on the usefulness of technology, communication, time management, online education, and content yet had a lower perceptions about their abilities with these competencies and recommended that this will be improve through professional development programs for faculty.

According to Kirkwood and Prince (2006), the professional development program should include not just the teachers but also the administrators to develop and enhance e-learning policy development. In the study of Ainin et al. (2015), it was revealed that Facebook had a positive influence in the academic success of the learners. While in the study of Gagne and Sheperd (2001) about the effectiveness of online classes, posited that those learners exposed to distance education have similar performance with those learners who received traditional class.

Aydin (2005) revealed that sex differences had no effect on online teaching perception while Briggs (2005) showed that sex has a significant difference in terms of the teachers' perception towards the role of the technologies in teaching, instructional design practices (Chase, 2002), motivation to teach online (Shea, 2007).

Another factors that influence teaching performance online is through available resources, experiences, students' feedback, and time management (Clay, 1999). In the study of Shea (2007) revealed that training received by the teachers in online teaching will be a factors that will help them to increase their self-confidence. With more experience in teaching with technology will lessen their struggles to communicate and to teach online. With higher online teaching experiences equates better performance in delivering pedagogical competencies online (Carrol et al., 2013).

Several studies assessed faculty readiness to teach online but most of these are not study systematically and empirically. In the study of Lichoro (2015) revealed that teachers are not ready to teach online. In the same way, Downing and Dymont (2013) concluded that teaching online is a time consuming

task and recommended that teachers to be able to teach online need some technical and pedagogical supports and time management strategies. In addition, a sample study shows that an online help desk services is an urgent need to facilitate online teaching effectively (Gay, 2016).

Distance learning composed of 6 advantages, where learners will be able to:

- (1) study from anywhere and anytime (Nagrале, 2013),
- (2) saving significant amount of money (Brown, 2017),
- (3) no commuting (Nagrале, 2013),
- (4) flexible to choose (Brown, 2017),
- (5) saves time (Bijeesh, 2017), and
- (6) earn while you learn (Brown, 2017).

Distance education can learn anytime and anywhere you reside on the planet. It does not matter if where country or place you are for as long as you have the access to the Internet you can apply to any course and start learning (Nagrале, 2013).

Online courses are much cheaper than the traditional classroom set-up. You just need a laptop and Internet access to be connected with your classmates and teachers without spending so much money for transportation and accommodation at the same time it saves your time (Bijeesh, 2017; Brown, 2017).

Distance learning also allows learners to choose their convenience schedule, which offers flexibility to choose their learning course. Also, through this, students can work to earn money while learning (Brown, 2017).

Students who are not present in the traditional classroom due to some instances may learn through the use of technology with the help of distance learning approach that focus on teaching methods and technology, which aim is to deliver teaching and learning process in equity. Distance learning in the field of education defined as the process to provide access of information and learning for learners (Honeyman & Miller, 1993).

Through distance education, individuals were able to learn anytime and anywhere. But its impact replaced teachers' pedagogic and administrative function (Clegg et al., 2003; Peters, 1973; Traxler, 2015). Through professional development program, teachers will be able to foster critical reflection on the use of technology in the teaching and learning process. This may eventually help them to broaden their awareness towards pedagogic opportunities and develop their skills and knowledge in online learning design to change their pedagogical orientation and practices. Also, this programs should address complex factors such as membership in a community practice, teachers' pedagogical orientation and subject subculture, teachers' personal and professional use of technology, vision for technology-supported teaching and learning, institutional support for technology integration, and policy environment (Pachler & Daly, 2011).

Summary

Based on the review of literature, it was found that there were rich research about the frameworks, roles, and requirements involve teaching in a virtual classroom. However, research on the perceptions in connection to teachers' readiness towards online teaching is still dearth.

Also, such research on the roles and requirements to teach online may be differ to the culture, context, organizations, and countries (Abrioux, 2001; Anderson, 2008; Bates, 2008; Calvert, 2005; Garrison, 2009; Haughey et al., 2008; Jara & Fitri, 2007; Naidu, 2007; Tait, 2010). Thus, there is still a need to study the teachers' readiness towards the distance learning approach and its connection to their own perspectives.

CONCEPTUAL FRAMEWORK

Teaching competencies is the knowledge, skills or ability to perform a task effectively based on the set standards (Richey et al., 2001). These competencies for online teaching are pedagogical, social, managerial, and technical, which according to Berge (1995), are the conditions to have a successful online teaching. It is the assumption of the study that ability, attitude, and acceptance towards technology are products of teacher's knowledge and promote readiness.

Most of the teachers had developed the learners' abilities and even their personalities through face-to-face instruction, which contributes to students' learning experiences. Before, teachers' styles in teaching were lecture discussions, field-trips for direct purposeful experience, using some gestures to emphasize comments and suggestions, meet learners before, during, and after the class, meet learners with learning difficulties after the class and with academic issues, and promote team cooperation (Firat, 2016; Jacobs et al., 2016; Lynch & Dembo, 2004; Zimmerman, 2002).

One of the most important factors to be considered in distance education is autonomy or learner independence. This is the heart of self-learning and critical factor in a successful distance learning, where students are responsible for their own learning in an e-learning environment (Firat, 2016; Jacobs et al., 2016; Lynch & Dembo, 2004; Zimmerman, 2002).

Due to invention of digital electronics, the development of a range of technologies has accelerated exponentially. The ideas of synchronous and asynchronous mode of teaching are the two important methods to adopt from these changes. Asynchronous learning mode is traditional methods of teacher, where students have schedule to follow whether the students being located remotely, while asynchronous learning mode requires deliver of teaching and learning process in a flexible and accessible opportunities. These two may be combined for the successful use of distance education (Firat, 2016; Jacobs et al., 2016; Lynch & Dembo, 2004; Zimmerman, 2002).

The combination of synchronous and asynchronous communication among students and teachers who are physically separated will be able through forms of educational provision using contemporary technology, which is distance learning (Alfonso, 2012; Dringus, 2000; Keyter, 2002).

There are two theories that impact the integration of technology to pedagogical practices. The contrary to expectation is the first one that posits e-learning context as non-beneficial for teaching approaches transformation. There is a claim that traditional modes of teaching are still beneficial. In some cases, the dominant use of distance learning meant the provision of information and unmoderated discussions

(Blin & Munro 2008; Conole, 2004; Hedberg, 2006; Kirkwood, 2009; Natriello, 2005).

The second is the theory of distance learning, which begins with the assumption that the learning environment is focused into four overlapping lenses, which are learner-centeredness, community-centeredness, knowledge-centeredness, and assessment-centeredness (Brown & Cocking, 1999). This theory was associated with the theory of constructivism or the essence of interaction among teachers, learners, and the content (Jonassen, 1992; Piccia, 2017).

E-learning is a computer aided instruction, which refers to electronic application and process including computer-based learning, virtual or digital classroom-based learning, and web-based learning that can be delivered through internet, TV, radio or any available platform of media to supplement array of teaching and learning process (Jonassen, 1992; Piccia, 2017). According to Alarifi (2003), distance-learning modality is not just an aid for learners with handicaps or family responsibility rather a supplement to enrich the virtues of independent learning. As stipulated by Holmes and Gardeners (2006), e-learning is a self-directed learning related to technology by means of virtual contact between the learner and the teacher as to when and where to facilitate learning, learn by themselves, and study at any time and place.

The potentials of distance learning, the e-learning platforms, and their effectiveness will never fully obtained without the understanding on the perspectives of the one who will use this, the teachers. Hence, it is essential in this study to determine the perceptions of the users of the technology-enhanced learning environment (Yuen & Ma, 2008). The teachers' preparedness to teach in distance learning modality defined as teachers' readiness. Within this view, it focuses into three contexts: ability, attitude, and acceptance. The ability of the teachers to use technology was conceptualized through their beliefs or perceptions with regards to their teaching competencies, instructional strategies, and teaching effectiveness (Lee & Tsai, 2010). Abilities of teachers in this study are confined into basic computer skills, the Internet and online skills, software productivity skills, and training attended.

First, teachers' abilities towards basic computer skills are their perceptions about how to save/open documents to/from a hard disk or other removable storage device; installing software and changing configuration settings on my computer; resolve common hardware or software problems or I can access a technical support in case I encounter a problem; and open/send with file attachments (Doculan, 2019).

Second, teachers' abilities towards internet or online skills are beliefs about their familiar with online etiquette; surf the internet and navigate the web pages (go to next, or previous page); use web browsers (e.g., Internet Explorer, Google Chrome, and Mozilla Firefox) confidently; resolve common errors while surfing the internet such as "page not found" or "connection timed out"; comfortable with things like doing searches, setting, bookmarks, and downloading files; and access an online library and other resource database; use asynchronous tools (e.g., discussion, boards, and chat tools) effectively (Doculan, 2019).

Third, teachers' abilities towards software productivity skills composed of beliefs about what PDF files are and I can download and view them; familiar with word and use it comfortably; have several applications opened at the same time and move between them; use file compression (WinZip, RAR, etc.); and use spreadsheet application (MS-Excel); use presentation software (Doculan, 2019).

Finally, in terms teachers' beliefs towards training attended are perceptions or beliefs that they have training on the use of the internet; attended online classes before; used a learning management system before; skills to modify and add content and assessment using an online learning management system; and attended seminars/ workshops related to online learning activities (Doculan, 2019).

Technical competencies refer to the knowledge and proficiency of the teachers to use the available technology with pedagogy. Technical knowledge refers to the knowledge on how to use the software, tools, and operating systems. This involves the knowledge how to select, organize, manage, use, and produce audio-based or video-based instructions towards the content, concepts, and demonstrations. Hence, this requires technical competencies to supplement or replace classroom instruction into virtual content. While proficiency is the ability to assist learners from their difficulties and the ability to troubleshoot technological issues (Brooks, 2010; Darabi et al., 2006; Varvel, 2007; Young, 1997).

The second content of teachers' readiness is the attitude towards a successful online teaching, which composed of teaching styles and strategies, confidence, motivation, and time management. Teachers' attitude towards their teaching strategies and styles can be achieved if they have the following attitude: encourage independence and creativity from student; facilitate and monitor appropriate interaction among students; flexible in dealing with student's needs (due dates, absences, and make-up exams); believes that critical thinking and problem solving are important skills for students; use strategies to encourage active learning, interaction, participation, and collaboration among students; and encourage learning through group interaction; provide timely, constructive feedback to students about assignments and questions (Doculan, 2019).

The second is teachers' attitude towards their confidence, which have the following: use the internet to locate resources for teaching; work well with students with different cultural background; communicate with students very well; have very good reading comprehension skills; able to condense multiple perspectives into a coherent discussion; work independently, without the traditional class arrangement (students & teacher in the same class at the same time); can often complete difficult tasks on my own, even if others do not provide support and encouragement; able to comfortable work online; comfortable communicate almost entirely through writing; able to establish effective environment for student-teacher and student-student interaction; capable of self-discipline; work in a non-structured environment; assume responsibility for preparation and presentation of learning tasks; and have the ability to experiment with new pedagogical approach (Doculan, 2019).

The third is teachers' attitude towards time management, which composed of the following competencies: dedicate four to six hours a week (anytime during the day or night) to participate in the online class; willing to log on and contribute to an online classroom discussion and interact with student; willing to devote more time to an online class than an onsite class; and able to create schedules for myself and stick to them (Doculan, 2019).

Time management skill is the ability to plan and design online courses within a limited time. Doing online teaching is a time-consuming task since it requires so many preparations and takes significantly longer for the first timer as all the content, task, and evaluation have to be changed for an online format (Varvel, 2007; Visser, 2000).

Some problems that teachers may encounter during the online teaching were most of their time will be spent are on assessing learners, providing assessment directions, giving of feedback from their activities, addressing some questions regarding learners' technical difficulties on the subject matter, and by injecting questions that will promote higher order thinking skills. In relation, some teachers will spend much of their time to support learners with learning difficulties (Coppola et al., 2002; Darabi et al., 2006; Napier et al., 2011; Varvel, 2007).

According to the study of Visser (2000), ability to manage time efficiently depends on the technical support of the institution and teaching experiences. These factors might reduce the time and effort in online teaching if given importance. And eventually will become essentials for success online teaching.

Finally, the last teachers' attitude concepts is motivation, which is composed of the following competencies: interest in online teaching is motivated by the flexibility it will give me to decide when I do my work; interest to teach online is motivated by the opportunity for me to pursue personal interests that are not work-related; interest to teach online is motivated by the opportunity to have more free time for other professional activities (attending conferences, consulting, etc.); Having a more convenient way to teach highly motivates me to teach online; committed to teaching; highly motivated and enthusiastic; and set a goal before starting a task (Doculan, 2019).

For an effective e-learning environment, Khan (2005) proposed eight dimensions, which are institutional, ethical, resource support, management, evaluation, interface, technological, and pedagogical. These eight dimensions came from the e-learning acceptance model, which main features are to classify the acceptance of the users as dignified on knowledge and positive practice of electronic learning. The model was divided into four factors, which are performance expectancy, social influence, facilitating conditions, and behavioral intention.

The practicality, interaction, and flexibility are principles of performance expectancy. This factor implies to the confidence of the teachers in using technology and their beliefs about the effects of technology in improving learners' achievement. This performance expectancy is composed of the beliefs that e-learning tool allows teachers to interact with students in real time; is efficient as teaching method; eases the

process of learning; and enhances students' performance (Afzal et al., 2015).

While their acceptance on the urgency to use the new system with support from the institution and with the knowledge about the independent standards of e-learning environment are the principles of social influence (Afzal et al., 2015).

On the other hand, the adaptability, trustworthiness, coaching, and funding are the principles of facilitating condition. This factor composed of beliefs on the governmental and methodological infrastructure that supports to maintain the system. This composed of the following beliefs: e-learning assures schedule flexibility; appears to improve the learning outcomes; and activities are aligned with courses and activities (Afzal et al., 2015).

And finally, behavioral intention is a choice concerning prospective system. It has the following beliefs: Teaching is more effective and fun with the use of online learning materials; e-learning improves the learning process and experience of students; teaching with e-learning improves my teaching methodology; online collaboration motivates students to actively participate in any discussion; and using online resources increases my productivity (Afzal et al., 2015).

These factors of the acceptance theory of e-learning comprises acceptance on technology and varies significant aspects of pedagogy that needs to be measured. Electronic learning acceptance model is connected to teaching and learning process that provides perceptions from the e-learning dimensions that ease optimal its optimal use by teachers and learners (Afzal et al., 2015).

The concepts of teachers' readiness model may provide specific factors by the teachers on how to facilitate optimum learning utilization of the electronic resources. This may help learners and educators to understand their e-learning practices as critical factors of readiness model.

Thus, this study may contributes to the development of readiness for teachers on distance learning and develop a plan for the training needs of the teachers on e-learning modality. Very few research were made in terms of attitude of the educators in the frame of electronic learning readiness, yet no research study ever found on the teachers' acceptance, attitude and ability related to the delivery of e-learning to the learners in the Philippine context.

The model used in the study, which is the acceptance, ability, and attitude will be employed to investigate the use of the electronic learning readiness in the secondary level in teaching and learning in all cluster four schools (**Figure 1**).

The most important issue regarding distance education is teachers' readiness and acceptance. If teachers do not perceive technology as useful, then they are not receptive to distance education. Also, other important problems affecting the distance education community will be the teachers' readiness, positive outlook, and needed skills and pedagogy. Technological pedagogy is one of the most important factors needed by most teachers to deliver instruction through e-learning modalities effectively.

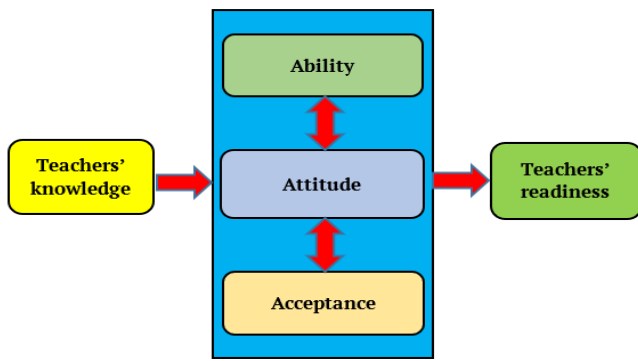


Figure 1. Conceptual framework (Source: Author)

If teachers had negative attitude towards the use of technology hence, pedagogy may suffer. The perception that pedagogy is teachers' personal experiences are connected, which are bounded to successful distance learning delivery. If teachers have negative perceptions with the use of technology and neglect from using it, this may suffer the educational process. Educational initiative failed due to poor teachers' beliefs and practices. As one of the important factors in the personal development of technological pedagogy, the methods of introducing technology among teachers may deliver experiences to overcome barriers such as the needed time to learn it and may lessen their frustration on how to use it (Christensen et al., 2001; Niederhauser & Stoddart, 2001).

Research Questions

The main purpose of this study was to determine the level of teachers' readiness towards distance learning high schools of the Division of Pampanga, Philippines for the school year 2022-2023. Specifically, this study sought answers the following questions:

1. What is the profile of the teachers in terms of
 - a. Age,
 - b. Sex,
 - c. years in teaching,
 - d. monthly income,
 - e. educational attainment, and
 - f. school's designation?
2. How may the respondents be describe in terms of the following factors:
 - 2.1. Teaching ability towards technology:
 - 2.1.1. basic computer skills,
 - 2.1.2. the Internet or online skills,
 - 2.1.3. software productivity skills, and
 - 2.1.4. trainings attended,
 - 2.2. Attitudes towards a successful online teaching:
 - 2.2.1. teaching styles and strategies,
 - 2.2.2. confidence,
 - 2.2.3. motivation,
 - 2.2.4. time management, and
 - 2.3. Acceptance on distance learning:
 - 2.3.1. performance expectancy,

- 2.3.2. social influences,
- 2.3.3. facilitating conditions, and
- 2.3.4. behavioral intention?

3. Which among the sub-factors of e-learning significantly influence the teachers' profile?
4. What is the difference among teachers' teaching ability towards technology, attitudes on successful online teaching, and acceptance on distance learning?
5. What are the training needs of teachers in facilitating distance learning?

Significance of the Study

This study may give benefits to the following for the continuous development of education in the midst of the COVID-19 pandemic.

Teachers

This study may help them to understand their ability towards the use of technology, attitudes on successful online teaching, and acceptance on distance learning.

Administrators

This may help them to determine the ability, attitude, and acceptance of the teachers towards distance learning. Through the result of the study, administrators may use the proposed training program for the teachers as basis for preparing seminars and training needs in the cluster four or even in the division of Pampanga and as to what aspect they will focus to enhance teachers' ability, attitude, and acceptance to develop their readiness in the midst of the COVID-19 pandemic.

Curriculum developers

This study may help them as they prepare modules and other materials needed for instruction in line with different strategies and techniques suited for distance learning modality.

Future researchers

This study may help them to search for more factors that may affect teachers' readiness and to develop a method that will fulfill the gap of the research result based on teachers' ability, attitude, and acceptance towards distance learning.

METHODOLOGY

Type of Research

The method that was used in this study was a descriptive-cross-sectional method of research, which refers to any scientific process beginning with description, based on observation, of an event or events from which theories may later be developed to explain the observations. Descriptive non-experimental research in which the primary focus for the research was to describe some phenomenon or to document its characteristics. Such studies were needed in order to document the status quo or do needs assessment in a given area of interest. This study was descriptive in such a way that it describes teachers' readiness on distance learning in terms of attitude, ability, and acceptance towards online teaching.

Best defined descriptive research as a method that describes and interprets what is and that it is a process that goes beyond mere gathering and tabulation of data (Calderon & Gonzales, 2013). It involves the elements or interpretation of the meaning or significance of what is described. Thus, description was often combined with comparison and contrast involving measurements, classifications, interpretation and evaluation.

Also, this study used cross-sectional research in which data were collected at one point in time, often in order to make comparisons across different types of respondents or participants. This study utilized this method since all the data were collected at one point in time using Google form sent through e-mail or messenger.

Respondents

The respondents of this descriptive-cross-sectional study were all the teachers from high schools of Division of Pampanga, Philippines of the school year 2022-2023. Total enumerations were employed in the study. Data from the respondents such contact number and e-mail address were needed in order to contact or message the teacher-respondent in case that there was a question or correction about their answers. Also, sex, age, position/designation, educational attainment, number of years in the teaching service, monthly income, subjects handle, and gadgets available at home were used as part of the analysis and supported by literature review.

Instruments

The instrument that was used in this study was composed of four parts: demographic profile, teachers' ability towards the use of technology, teachers' attitude towards a successful online teaching, and teachers' acceptance on distance learning. This instrument modified by the researcher in congruence to the conceptual framework of the study. This was adopted from the works of Afzal et al. (2015) from their study "Teachers perceptions and needs towards the use of e-learning in teaching of physics at secondary level" and Doculan (2019) from her study "E-learning readiness assessment tool for Philippine higher education institutions". The first part was the demographic profile that gets the following information from the respondents. It has four portions namely: general information, educational attainment, work experiences, and technology access. General information composed of age, sex, contact number, e-mail address, position or designation, school name, school address, school category, number of students in junior high school and senior high school, number of teachers in junior high school and senior high school, name of school head, position/designation of the school head.

Educational attainment composed of education, degree or course, and year graduated. Work experience has number of years in the teaching service, monthly income, and available gadgets at home.

Part two of the instrument will be the teachers' ability towards their beliefs about the use of technology. This part will be evaluated by teachers using 5 Likert scale: 5-very grade extent, 4-great extent, 3-little extent, 2-very least extent, and 1-not at all. This part has four portions namely: basic computer skills with three statements, internet or online skills

with eight statements, software productivity skills with six statements, and trainings attended with five statements.

Part three of the instrument will be the attitude of the teachers towards a successful online teaching with the following subparts: teaching styles and strategies with nine statements, confidence with 14 statements, motivation with 7 statements, and time management with four statements. This part of the instrument can be answer by 4 as very often, 3 as often, 2 as sometimes, and 1 as never.

Finally, part four of the instruments will be the teachers' acceptance on distance learning, which is answerable by 5 as strongly agree, 4 as agree, 3 as undecided, 2 as disagree, and 1 as strongly disagree. It has four components namely: performance expectancy with seven statements, social influence with three statements, facilitating conditions with six statements, and behavioral intentions with 10 statements.

Data Collection and Procedure

To collect the data of the study the researcher considered the following steps:

- (1) a request form was submitted to the school head to conduct an applied research,
- (2) the principal endorsed the research to the division research and planning office and the research head of the office made some measures for the acceptance of the proposal,
- (3) after the proposal was accepted, the distribution of letter to the principal of the 14 schools was employed and waited to approval,
- (4) since the researcher has contact within each schools, with the approval of the school head, the link using Google form was distributed through school faculty group chats or Facebook group,
- (5) a letter of invitation and consent form were included in the Google Form to attain confidentiality.

Teachers were given enough time to fill out all the needed information from the instrument. Finally, analysis and interpretation of data were made following some statistical treatment.

Ethical Considerations

Just as in any research, honesty was one of the primary concerns of the author as to the data and results by ensuring that no willful omission of any significant findings or manipulation just to favor specific interest were made. Working with a professional was one of the methods to be able to obtain accurate and objective results especially from the assessment tool used in this study. The results were interpreted with the guidance of the said research associate in order to ensure that the data were carefully inferred, treated, and with integrity. The potential issue in the data gathering was the respondents' degree of honesty and/or willingness to participate in the study as they were the primary source of data.

The author likewise observed intellectual property rights by, to the best of his knowledge, observing right to patent, citation of relevant information quoted in this study to give credits to the original author or references especially on the

Table 1. Profile of respondents in terms of age, sex, years in teaching, monthly income, educational attainment, & school designation

Profile	Frequency (n)	Percentage (%)
Age (total)	747	100.00
20-29	207	27.71
30-39	186	24.90
40-49	168	22.49
50-above	186	24.90
Sex (total)	747	100.00
Male	153	20.48
Female	594	79.52
Years in teaching (total)	747	100.00
0-5	240	32.13
6-10	210	28.11
11 & above	297	39.76
Monthly income (total)	747	100.00
0-15,000	27	3.61
15,001-20,000	99	13.25
20,001-30,000	543	72.69
30,001-40,000	21	2.81
40,001-above	57	7.63
Educational attainment (total)	747	100.00
College graduate	195	26.10
With MA units	408	54.62
MA graduate	66	8.84
With doctoral units	75	10.04
Doctoral graduate	3	0.40
School designation (total)	747	100.00
Teacher 1	276	36.95
Teacher 2	165	22.09
Teacher 3	228	30.52
Master teacher 1	63	8.43
Master teacher 2	15	2.01

use of the assessment tools. The author further recognizes the societal impact of the result of this research study especially in the event that the results of this study will be shared by means of presentation in conferences or publication. The author also recognizes issues on legality and thus observing ethics for publication and the likes.

Data Analysis

Data on this study was obtained from the questionnaire using Google Form. Statistical tools were employed including mean, weighted mean, and standard deviation, frequency

distribution, and multivariate analysis. A statistical package for social science software was aided in the data analysis process.

RESULTS AND DISCUSSION

This part presents the results, analysis, and interpretation of data gathered. Results were presented, analyzed, and interpreted to respond to objectives and hypothesis of study.

Profile of Respondents in terms of Age, Sex, Years in Teaching, Monthly Income, Educational Attainment, and School Designation

Table 1 shows the profile of the respondents in terms of age, sex, years in teaching, monthly income, educational attainment, and school designation. From the total number of 747 respondents, in terms of the age, the modal was 20 to 29 years old (f=207, p=27.71%) and as for the sex, female respondents dominate the male respondents (f=594, p=79.52%). While in the years of teaching experience, most of them teach 11 years and above (f=297, p=39.76%) and in terms of their monthly income, the range of 543 respondents or 72.69 % of the group were 20,001-30,000 (Philippine Money). Finally, in terms of educational attainment, this study revealed that 480 of the respondents or 54.52% of them had masters' units while, in terms of their school designation most of them were in teacher 1 position (f=276, p=36.95%).

Level of Readiness of Teachers in Terms of Teaching Ability Towards Technology, Attitudes Towards a Successful Online Teaching, and Acceptance on Distance Learning

Table 2 shows that level of readiness of teachers in terms of teaching ability towards technology. Based on the report of the survey, the basic computer skills (*3.7282, **0.8305), the internet or online skills (*4.1556, **0.7513), the software productivity skills (*4.0643, **0.8227), and the training attended of the teachers (*3.5100, **1.001) showed greater extent.

The ability of the teachers to resolve common hardware or software problems or access technical support in case of technical problems revealed to a little extent (*3.1124, **1.1288). The same was true with their ability to use file

Table 2. Level of readiness of teachers in terms of teaching ability towards technology

No	Statements	*Mean	**SD	***Description
1.1. Basic computer skills				
1	I know how to save/open documents to/from a hard disk or other removable storage device.	4.4859	0.7615	GE
2	I am comfortable with things like installing software & changing configuration settings on computer.	3.5863	0.9954	GE
3	I know how to resolve common hardware or software problems, or I can access a technical support in case I encounter a problem.	3.1124	1.1288	LE
Average		3.7282	0.8305	GE
1.2. The Internet/online skills				
4	I have an email address and I can open/send with file attachments.	4.5663	0.7427	VGE
5	I am familiar with online etiquette.	4.5100	0.7011	VGE
6	I now I know how to surf the internet and navigate the web pages (go to next or previous page).	4.4618	0.7918	GE
7	I can use web browsers (e.g. Internet Explorer, Google Chrome, & Mozilla Firefox) confidently	4.4337	0.8768	GE
8	I know how to resolve common errors while surfing the Internet such as " page not found" or "connection timed out."	3.7992	1.0066	GE
9	I am comfortable with things like doing searches, setting, bookmarks, & downloading files.	4.0884	0.9907	GE
10	I know how to access an online library and other resource database.	3.6787	1.0579	GE

Table 2 (Continued). Level of readiness of teachers in terms of teaching ability towards technology

No	Statements	*Mean	**SD	***Description
11	I know how to use asynchronous tools (e.g. discussion, boards, & chat tools) effectively.	3.7068	1.0099	GE
Average		4.1556	0.7513	GE
1.3. Software productivity skills				
12	I know what PDF files are and I can download and view them.	4.2811	0.9582	GE
13	I am familiar with word and use it comfortably.	4.4378	0.8202	GE
14	I am able to have several applications opened at the same time and move between them.	4.1004	0.9669	GE
15	I know how to use file compression (WinZip, RAR, etc.)	3.2731	1.2287	LE
16	I know how to use spreadsheet application (MS-Excel).	3.9920	1.0342	GE
17	I know how to use presentation software (PowerPoint).	4.3012	0.8518	GE
Average		4.0643	0.8227	GE
1.4. Trainings attended				
18	I have training on the use of the Internet.	3.5984	1.229	GE
19	I have attended online classes before.	3.3735	1.407	LE
20	I have used a learning management system before	3.3574	1.185	LE
21	I have skills to modify & add content and assessment using an online learning management system.	3.4458	1.033	LE
22	I have attended seminars/ workshops related to online learning activities.	3.7751	1.137	GE
Average		3.5100	1.001	GE
Grand mean		3.8645	0.8514	GE

Note. **SD: Standard deviation & ***Likert scale: 5-Very great extent (VGE): 4.51-5.00; 4-Great extent (GE): 3.51-4.50; 3-Little extent (LE): 2.51-3.50; 2-Very least extent (VLE): 1.51-2.50; & 1-Not at all (NA): 1.00-1.50

compression (*3.2731, **1.2287), their lack of online class experience (*3.3735, **1.1850), how to use an online management system (*3.3574, **1.185), and how to modify and add content using electronic learning management system (*3.4458, **1.033) revealed to have a little extent.

Grand mean of level of readiness of teachers in terms of teaching ability towards technology was 3.8645 with the standard deviation of 0.8514 and interpreted as greater extent.

Table 3 shows that level of readiness of teachers in terms of attitudes towards a successful online teaching. Based on the report of the survey, the teaching styles and strategies (*3.5078, **0.4374) revealed to be very often, while the confidence (*3.4007, **0.4280), the motivation (*3.3941, **0.4441), and the time management (*3.3394, **0.5398) showed to be often.

The attitudes of the teachers to encourage learning to group collaboration (*3.4016, **0.6273), to be able to work

Table 3. Level of readiness of teachers in terms of attitudes towards a successful online teaching

No	Statements	*Mean	**SD	***Description
2.1. Teaching styles & strategies				
1	I encourage independence and creativity from my student.	3.5341	0.5741	VO
2	I facilitate and monitor appropriate interaction among students.	3.4699	0.5813	O
3	I am flexible in dealing with student's needs (due dates, absences, & make-up exams).	3.5823	0.5174	VO
4	Critical thinking and problem solving are important skills for my students.	3.5703	0.5419	VO
5	I use strategies to encourage active learning, interaction, participation, & collaboration among students.	3.5904	0.5160	VO
6	I encourage learning through group collaboration.	3.4016	0.6273	O
7	I provide timely, constructive feedback to students about assignments and questions to correct problems and keep them on task.	3.4819	0.5678	O
8	I use appropriate strategies designed to accommodate varied talents, skills, & learning styles of my students.	3.4498	0.5659	O
9	I provide student-centered lessons and activities that are connected to real-world applications.	3.4900	0.5680	O
Average		3.5078	0.4374	VO
2.2. Confidence				
10	I use the Internet to locate resources for teaching.	3.4538	0.5871	O
11	I work well with students with different cultural background.	3.4137	0.5686	O
12	I communicate with students very well.	3.6064	0.5130	VO
13	I have very good reading comprehension skills.	3.5944	0.5307	VO
14	I am able to condense multiple perspectives into a coherent discussion.	3.3614	0.5361	O
15	I can work independently, without the traditional class arrangement (students & teacher in the same class at the same time).	3.3534	0.5774	O
16	I can often complete difficult tasks on my own, even if others do not provide support & encouragement.	3.2811	0.5754	O
17	I feel I will be able to work comfortable online.	3.1406	0.7177	O
18	I am able to comfortable communicate almost entirely through writing.	3.1807	0.6797	O
19	I am able to establish effective environment for student-teacher and student-student interaction.	3.3976	0.5659	O
20	I am capable of self-discipline.	3.6667	0.5126	VO
21	I able to work in a non-structured environment.	3.2851	0.5907	O
22	I assume responsibility for preparation and presentation of learning tasks.	3.5622	0.5202	VO

Table 3 (Continued). Level of readiness of teachers in terms of attitudes towards a successful online teaching

No	Statements	*Mean	**SD	***Description
23	I have the ability to experiment with new pedagogical approach.	3.3133	0.5289	O
Average		3.4007	0.4280	O
2.3. Motivation				
24	My interest in online teaching is motivated by the flexibility it will give me to decide when I do my work.	3.2731	0.6259	O
25	My interest to teach online is motivated by the opportunity for me to pursue personal interests that are not work-related.	3.0643	0.7996	O
26	My interest to teach online is motivated by the opportunity to have more free time for other professional activities (attending conferences, consulting, etc.).	3.1526	0.6348	O
27	Having a more convenient way to teach highly motivates me to teach online.	3.2008	0.6212	O
28	I am committed to teaching.	3.7590	0.4553	VO
29	I am highly motivated and enthusiastic.	3.6506	0.5328	VO
30	I set a goal before starting a task.	3.6586	0.5151	VO
Average		3.3941	0.4441	O
2.4. Time management				
31	I can dedicate 4 to 6 hours a week (anytime during the day or night) to participate in the online class.	3.4297	0.6437	O
32	I am willing to log on and contribute to an online classroom discussion and interact with student.	3.4659	0.6081	O
33	I am willing to devote more time to an online class than an onsite class.	3.0924	0.7527	O
34	I am able to create schedules for myself and stick to them.	3.3695	0.6214	O
Average		3.3394	0.5398	O
Grand mean		3.4105	0.4623	O

Note. **SD: Standard deviation & ***Likert scale: 4-Very often (VO): 3.51-4.00; 3-Often (O): 2.51-3.50; 2-Sometimes (S): 1.51-2.50; & 1-Never (N): 1.00-1.50

comfortable online (*3.1406, **0.7177), to be motivated by the opportunity to pursue personal interests that are not work related (*3.0643, **0.7996) and to devote more time to an online class than an onsite class (*3.0924, **0.7527) revealed often to their own perspectives.

The grand mean of the level of readiness of teachers in terms of attitudes towards a successful online teaching was

3.4105 with the standard deviation of 0.4623 and interpreted as often.

Table 4 shows that level of readiness of teachers in terms of acceptance on distance learning. Based on the report of the survey, the performance expectancy (*3.8313, **0.7511), the social influence (*3.7038, **0.8610), the facilitating conditions (*3.8119, **0.7555), and the behavioral intentions (*3.8313, **0.7381) revealed that may teachers agree.

Table 4. Level of readiness of teachers in terms of acceptance on distance learning

No	Statements	*Mean	**SD	***Description
3.1. Performance expectancy				
1	I believe that e-learning tool that allow teachers to interact with students in real time.	4.1486	0.7382	A
2	I believe that e-learning is efficient as teaching method.	3.8153	0.8637	A
3	I believe that e-learning eases the process of learning.	3.8153	0.9222	A
4	I believe that e-learning enhances students' performance.	3.7269	1.0135	A
5	I believe that e-learning content can accommodate the preference of students and teachers.	3.7590	0.8591	A
6	I believe that e-learning enhances students' interest.	3.7851	0.9152	A
7	I believe that e-learning caters with the individual difference.	3.7711	0.8648	A
Average		3.8313	0.7511	A
3.2. Social influence				
8	I use e-learning technology because my colleagues are using it in the classroom.	3.6747	1.0080	A
9	I use e-learning technology because my students use it in studying their lessons.	3.7871	0.9140	A
10	I use e-learning technology because my head use it for wok related.	3.7871	0.9271	A
11	I used e-learning technology because it enables me to compete with other institutions.	3.5663	1.0010	A
Average		3.7038	0.8610	A
3.3. Facilitating conditions				
12	E-learning resources are available in our school.	3.7189	1.0033	A
13	My colleagues are aware of the e- planned lessons.	3.8996	0.8706	A
14	E-learning assures schedule flexibility.	3.8795	0.8422	A
15	E-learning appears to improve the learning outcomes.	3.7550	0.8925	A
16	Integrating e-learning between the different subject activities is easier for me.	3.7229	0.8784	A
17	E-learning activities are aligned with subjects and activities.	3.8956	0.8348	A
Average		3.8119	0.7555	A
3.4. Behavioral intentions				
18	E-learning permits suitable technical support.	3.8755	0.8198	A
19	I feel more freedom learning by e-learning.	3.7470	0.8719	A
20	E-learning helps me with time management and self-discipline.	3.9116	0.7768	A

Table 4 (Continued). Level of readiness of teachers in terms of acceptance on distance learning

No	Statements	*Mean	**SD	***Description
21	E-learning can increased my communication skills with other learners.	3.8353	0.8323	A
22	E-learning permits what is suitable for my own learning style.	3.8313	0.8387	A
23	Teaching is more effective and fun with the use of online learning materials.	3.7631	0.9124	A
24	E-learning improves the learning process and experience of students.	3.7992	0.9057	A
25	Online collaboration motivates students to actively participate in any discussion.	3.7390	0.9277	A
26	Using online resources increases my productivity.	3.9799	0.7738	A
Average		3.8313	0.7381	A
Grand mean		3.7946	0.7765	A

Note. **SD: Standard deviation & ***Likert scale: 5-Strongly agree (SA): 4.51-5.00; 4-Agree (A): 3.51-4.50; 3-Undecided (U): 2.51-3.50; 2-Disagree (D): 1.51-2.50; & 1-Strongly disagree (SD): 1.00-1.50

Table 5. Profile of the respondents as influence by the e-learning sub-factors

Socio-demographic profile			Age			Sex			Years in the service		
E-learning sub-factors	*x	**SD	***p	*x	**SD	***p	*x	**SD	***p		
Basic computer skills	3.715	0.027	0.002	3.873	0.037	0.257	3.776	0.028	0.003		
The Internet online skills	4.144	0.024	0.000	4.243	0.034	0.002	4.202	0.024	0.000		
Software productivity skills	4.052	0.026	0.000	4.165	0.037	0.191	4.110	0.027	0.000		
Training attended	3.500	0.034	0.589	3.645	0.045	0.100	3.552	0.035	0.065		
Teaching style & strategies	3.509	0.016	0.227	3.498	0.020	0.720	3.510	0.016	0.002		
Confidence	3.399	0.016	0.012	3.426	0.019	0.180	3.405	0.016	0.090		
Motivation	3.394	0.016	0.012	3.413	0.020	0.198	3.398	0.016	0.001		
Time management	3.341	0.020	0.000	3.357	0.024	0.763	3.343	0.020	0.160		
Performance expectancy	3.832	0.028	0.012	3.836	0.034	0.528	3.835	0.028	0.518		
Social influences	3.700	0.032	0.005	3.699	0.039	0.002	3.000	0.032	0.007		
Facilitating conditions	3.810	0.028	0.063	3.814	0.034	0.000	3.716	0.028	0.535		
Behavioral intentions	3.830	0.027	0.141	3.844	0.033	0.000	3.816	0.027	0.911		
Socio-demographic profile			Monthly income			Educational attainment			School designation		
E-learning sub-factors	*x	**SD	***p	*x	**SD	***p	*x	**SD	***p		
Basic computer skills	3.669	0.056	0.150	3.856	0.101	0.000	3.653	0.050	0.046		
The Internet online skills	4.143	0.051	0.001	4.260	0.091	0.000	4.120	0.045	0.000		
Software productivity skills	4.049	0.055	0.001	4.171	0.101	0.001	3.994	0.049	0.000		
Training attended	3.472	0.068	0.093	3.594	0.123	0.004	3.505	0.061	0.030		
Teaching style & strategies	3.459	0.029	0.500	3.598	0.053	0.028	3.547	0.027	0.180		
Confidence	3.389	0.029	0.003	3.512	0.052	0.063	3.410	0.027	0.087		
Motivation	3.346	0.030	0.020	3.531	0.540	0.000	3.394	0.028	0.004		
Time management	3.250	0.036	0.002	3.424	0.066	0.002	3.323	0.034	0.000		
Performance expectancy	3.706	0.050	0.222	3.867	0.092	0.203	3.771	0.047	0.000		
Social influences	3.560	0.058	0.001	3.718	0.105	0.000	3.693	0.053	0.000		
Facilitating conditions	3.732	0.051	0.480	3.836	0.092	0.053	3.739	0.047	0.039		
Behavioral intentions	3.761	0.050	0.003	3.891	0.090	0.109	3.822	0.046	0.000		

Note. *Mean per sub-factor; **Standard deviation; & ***p-value using 5% level of significance

The acceptance of the teachers that e-learning enhances students' performance (*3.7269, **1.0135), that e-learning technology enables them to compete with other institutions (*3.5663, **1.0010), that e-learning resources are available at their schools (*3.7189, **1.0033) and that online collaboration motivates students to actively participate in any discussion (*3.7390, **0.9277) revealed to be the lowest mean.

The grand mean of the level of readiness of teachers in terms of acceptance on distance learning was 3.7946 with the standard deviation of 0.7765 and interpreted as agree.

Profile of Respondents as Influence by E-Learning Sub-Factors

Table 5 shows the profile of the respondents in terms of age, sex, years in the service, monthly income, educational attainment, and school's designation as influence by the e-learning factors in terms of their ability towards technology on basic computer skills, internet or online skills, software

productivity skills, and training attended, in terms of their attitudes towards a successful online teaching such as teaching styles and strategies, confidence, motivation, and time management, and finally, in terms of their level of acceptance on distance learning as to performance expectancy, social influences, facilitating conditions, and behavioral intention.

Using multivariate analysis as an indicator, in terms of age of the respondents as to the e-learning factors such as training attended (**0.589), teaching style and strategies (**0.227), facilitating conditions (**0.063), and behavioral intentions (**0.141) statistically showed significant difference. As to the basic computer skills (**0.257), productivity skills (**0.191), training attended (**0.100), teaching styles and strategies (**0.720), confidence (**0.180), motivation (**0.198), time management (**0.763), and performance expectancy (**0.528) significantly influence the sex of the respondents.

In terms of years in service as compared to respondents' training attended (**0.065), confidence (**0.090), time

Table 6. Relationships of e-learning factors

E-learning factors	Teaching ability towards technology				Attitudes towards a successful online teaching			
	BCS	IOS	SPS	TA	TSS	C	M	TM
Teaching ability towards technology	BCS				*0.000	*0.000	*0.000	*0.000
	IOS				*0.000	*0.000	*0.000	*0.000
	SPS				*0.000	*0.000	*0.000	*0.000
	TA				*0.000	*0.000	*0.000	*0.000
Acceptance on distance learning	PE	*0.000	*0.000	*0.000	*0.000	*0.000	*0.000	*0.000
	SI	*0.000	*0.000	*0.000	*0.000	*0.000	*0.000	*0.000
	FC	*0.000	*0.000	*0.000	*0.000	*0.000	*0.000	*0.000
	BI	*0.000	*0.000	*0.000	*0.000	*0.000	*0.000	*0.000

Note. *p-value using 5% level of significance; BCS: Basic computer skills; IOS: The Internet online skills; SPS: Software productivity skills; TA: Training attended; TSS: Teaching style & strategies; C: Confidence; M: Motivation; TM: Time management; PE: Performance expectancy; SI: Social influences; FC: Facilitating conditions; & BI: Behavioral intentions

management (**0.160), performance expectancy (**0.518), facilitating conditions (**0.535), and behavioral intentions (**0.911) showed significant difference.

As to the monthly income of the teachers, the basic computer skills (**0.150), training attended (**0.093), teaching styles and strategies (**0.500), performance expectancy (**0.222), and facilitating conditions (**0.480) reflects significant difference.

In terms of teachers' educational attainment, study shows that there it has a significant difference on the confidence (**0.063), performance expectancy (**0.203), facilitating conditions (**0.053), and behavioral intentions (**0.109). Finally, this research revealed that teaching styles and strategies (**0.180) and confidence (**0.087) influence by their school's designation.

Relationships of E-Learning Factors

Table 6 shows the relationship of the e-learning factors in terms of teaching ability towards technology, attitudes towards a successful online teaching, and acceptance on distance learning. Using multivariate analysis as an indicator, study shows that teaching ability towards technology as to basic computer skills, internet or online skills, software productivity skills, and training attended revealed no significant relationship to performance expectancy, social influences, facilitating conditions, and behavioral intentions as acceptance on distance learning. This means that the ability of the teachers towards technology do not affect their acceptance on distance learning.

Using the same indicator, teaching ability towards technology as to basic computer skills, internet or online skills, software productivity skills, and training attended revealed no significant relationship to teaching styles and strategies, confidence, motivation, and time management as their attitude towards a successful online teaching. This means that the ability of the teachers on technology do not significantly affect their attitudes towards a successful online teaching, and finally, relationship of the teachers' attitude towards a successful online teaching and their acceptance on distance learning were statistically shows not significant.

Training Needs of Teachers in Facilitating Distance Learning

Based on the result of the study, the following recommendations are hereby suggested as the training needs of the teachers in facilitating distance learning.

In terms of basic computer skills in teaching online class, teachers need the following:

1. How to install software and change configuration settings on computer.
2. How to resolve a common hardware of software problems or access technical support.

In terms of the Internet or online skills in teaching online class, teachers need the following:

1. How to resolve common errors while surfing the internet such as "page not found" or "connection time out".
2. How to access an online library and other resources data base.
3. How to use asynchronous tools (e.g., discussion, boards, and chat tools) effectively.

In terms of software productivity skills in teaching online class, teachers need the following:

1. How to use file compression (WinZip, RAR, etc.).
2. How to use spreadsheet application (MS-Excel).

In terms of training attended in teaching online class, teachers need the following:

1. Training on the use of the internet.
2. Training on using online classes and learning management system.
3. How to modify and add content and assessment using an online learning management system.
4. Seminars/ workshops related to online learning activities.

In terms of teaching styles and strategies, teachers need the following:

1. How to facilitate and monitor appropriate interaction among students.
2. How to encourage learning through group collaboration.
3. How to provide timely, constructive feedback to students about assignments and questions to correct problems and keep them on task.
4. How to use appropriate strategies designed to accommodate the varied talents, skills, and learning styles of my students.

5. How to provide student-centered lessons and activities that are connected to real-world applications.

In terms of confidence in teaching online class, the following are hereby suggested:

1. How to use the Internet to locate resources for teaching.
2. How to work well with students with different cultural background.
3. How to be able to condense multiple perspectives into a coherent discussion.
4. How to work independently, without the traditional class arrangement (students & teacher in the same class at the same time).
5. How to complete difficult tasks on my own, even if others do not provide support and encouragement.
6. How to work comfortable online.
7. How to comfortable communicate almost entirely through writing.
8. How to establish effective environment for student-teacher and student-student interaction.
9. How to work in a non-structured environment.
10. How to experiment with new pedagogical approach.

In terms of motivation in teaching online class, the following are hereby suggested:

1. How to be motivated by the flexibility it will give me to decide when I do my work.
2. How to be motivated by the opportunity for me to pursue personal interests that are not work-related.
3. How to be motivated by the opportunity to have more free time for other professional activities (attending conferences, consulting, etc.).
4. How to have a more convenient way to teach highly motivates me to teach online.

In terms of time management in teaching online class, the following are hereby suggested:

1. Dedication to work 4 to 6 hours a week (anytime during the day or night) to participate in the online class.
2. How to log on and contribute to an online classroom discussion and interact with student.
3. How to devote more time to an online class than an onsite class.
4. How to create schedules for themselves and stick to them.

CONCLUSIONS

Based on the findings of the study, the researcher arrived to the following conclusions:

1. From the total number of 747 respondents, in terms of the age, the modal was 20 to 29 years old and as for the sex, female respondents dominate the male respondents. While in the years of teaching experience, most of them teach 11 years and above and in terms of their monthly income, the range of 543 respondents were 20,001-30,000 (Philippine Money). Finally, in

terms of educational attainment, this study revealed that 480 of the respondents had masters' units while, in terms of their school designation most of them were in teacher 1 position.

2. Based on the report of the survey, the basic computer skills, the internet or online skills, the software productivity skills, and the training attended of the teachers showed greater extent.
3. The ability of the teachers to resolve common hardware or software problems or access technical support in case of technical problems revealed a little extent. The same was true with their ability to use file compression, their lack of online class experience, how to use an online management system, and how to modify and add content using electronic learning management system revealed to have a little extent.
4. Based on the report of the survey, the teaching styles and strategies revealed to be very often, while the confidence, the motivation, and the time management showed to be often.
5. The attitudes of the teachers to encourage learning to group collaboration, to be able to work comfortable online, to be motivated by the opportunity to pursue personal interests that are not work related, and to devote more time to an online class than an onsite class revealed often to their own perspectives.
6. Based on the report of the survey, the performance expectancy, the social influence, the facilitating conditions, and the behavioral intentions revealed that may teachers agree.
7. The acceptance of the teachers that e-learning enhances students' performance, that e-learning technology enables them to compete with other institutions, that e-learning resources are available at their schools, and that online collaboration motivates students to actively participate in any discussion revealed to be the lowest mean.
8. Using multivariate analysis as an indicator, in terms of age of the respondents as to the e-learning factors such as training attended, teaching style and strategies, facilitating conditions, and behavioral intentions statistically showed significant difference.
9. As to the basic computer skills, productivity skills, training attended, teaching styles and strategies, confidence, motivation, time management, and performance expectancy significantly influence the sex of the respondents.
10. In terms of years in the service as compared to respondents' training attended, confidence, time management, performance expectancy, facilitating conditions, and behavioral intentions showed significant difference.
11. As to the monthly income of the teachers, the basic computer skills, training attended, teaching styles and strategies, performance expectancy, and facilitating conditions reflects significant difference.
12. In terms of teachers' educational attainment, study shows that there it has a significant difference on the

confidence, performance expectancy, facilitating conditions, and behavioral intentions. Finally, this research revealed that teaching styles and strategies and confidence influence by their school's designation.

13. Study shows that teaching ability towards technology as to basic computer skills, internet or online skills, software productivity skills, and training attended revealed no significant relationship to performance expectancy, social influences, facilitating conditions, and behavioral intentions as acceptance on distance learning. This means that the ability of the teachers towards technology do not affect their acceptance on distance learning.
14. Teaching ability towards technology as to basic computer skills, internet or online skills, software productivity skills, and training attended revealed no significant relationship to teaching styles and strategies, confidence, motivation, and time management as their attitude towards a successful online teaching. This means that ability of the teachers on technology do not significantly affect their attitudes towards a successful online teaching, and finally, relationship of teachers' attitude towards a successful online teaching and their acceptance on distance learning were statistically shows not significant.

Limitations

This study was limited to descriptive-cross-sectional research design, which aims was to describe the ability, attitude, and acceptance of the teachers towards distance learning and how these factors significantly affect teachers' readiness. Also, this was limited in developing teachers' training needs to enhance their knowledge and skills in delivering instruction and assessment through online teaching. The scope of this study was focus on the 14 schools of the division of Pampanga for the school year 2022-2023. The respondents were all the teachers of cluster four for this year in all learning areas limited to age, sex, monthly income, years in the service, position or designation, and educational attainment. Finally, participants who did not complete the survey, omit some items, or did not answer the survey during the research data collection process were not counted for the analysis and interpretations.

Recommendations

After having a series of computation, analysis, and interpretations, following statements are hereby suggested:

1. A deeper understanding about the teachers' readiness on distance learning should be qualitatively evaluated.
2. A study on the reasons on the response of the teachers in terms of their readiness as compared to their profiles is hereby suggested for further research.

Funding: No external funding is received for this article.

Ethics declaration: Author declared that with the knowledge that research was carefully made, the discovery of information obtained was objective and critical. In this undertaking, the present research study observed the following ethical principles of honesty, objectivity, integrity, open, recognition of intellectual property rights, anonymity, responsible publication, societal responsibility, legality, copyright, and many others.

Declaration of interest: The author declares that there are no competing interests.

Availability of data and materials: All data generated or analyzed during this study are available for sharing when appropriate request is directed to the author.

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