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Research

Business Students' Assessment of Attitudes and Readiness towards Online Education

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Abstract

The study investigates the association of students' attitudes towards online education and learners' readiness to online education. The study's participants were students from Ilocos Norte's seven main universities and colleges, who were chosen via a convenience sample approach. The study used a quantitative research design and an informal research technique to determine the association between students' views regarding online education and their readiness to learn. Using linear regression, the findings revealed a positive relationship between the attitudes and learners' readiness towards online education Moreover, concerning the moderating effect of the demographic profile, using moderation analysis by Jamovi, the results was moderating effect of year level to the relationship of the two variables. This study answered the research gap of trying to find answer on the question whether there is a relationship between students' attitudes towards online education and their readiness. Students with positive attitude towards online education are more prepared and ready than learners' who have negative behavior towards online education. The research also included implications, findings, and suggestions.

Keywords: *Online education, learners' readiness, students' attitudes*

INTRODUCTION

Numerous institutions and colleges across the world have discontinued classroom instruction in response to the new coronavirus outbreak and have shifted to online education. Numerous government initiatives have been implemented to combat the threat of disease transmission. This includes travel restrictions, mandatory quarantine for travelers, social isolation, prohibitions on public gatherings, school and university closures, company closures, self-isolation, requiring individuals to work from home, curfews, etc., and lockdowns. Authorities in a number of nations have imposed a lockout or curfew in order to halt the virus's fast spread. Globally, these regulations have a detrimental effect on industry, education, health, and tourism. The education sector is one of the most adversely affected businesses. Due to the pandemic, online learning has seen continuous expansion, and it is soon becoming a substantial component of higher education (Allen & Seaman, 2013). However, in comparison to traditional classroom settings, online courses frequently experience poor student perseverance and completion rates (Hall, 2011). Thus, teachers must create learning environments that value students' online learning preparation and incorporate compelling features to keep students engaged with the contents and assignments. Factors linked to this change are the willingness and attitude of learners towards online learning. Awareness of their readiness and attitudes, and experiences would enable universities and academic staff to build and apply suitable models and online learning methods to meet students' needs.

Several research types have shown that online education and its acceptance have had a significant effect on student perceptions and characteristics, which have been seen as critical

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factors in online education in Third World countries (Bhuasiri et al., 2012). Attitude is the confidence that one has in the people and the surroundings. In the case of education, the positive attitude of students will affect their academic achievement. These features include Internet self-efficacy, computer and internet experience, computer usability anxiety, and online learning approaches (Chu, 2010).

Several organizations and researchers have examined the concept of e-learning in recent years, focusing on the issues of 'online learning,' 'remote learning,' and 'virtual learning.' While several colleges have attempted to build e-learning programs in practice, little study has been conducted on teacher and student acceptability or preparedness. To create a stable e-learning environment, it is vital to understand the agents that impact the e-learning ecosystem.

The readiness of learners, which is critical in the education-training process, contributes to the technique of learning-training. The extent to which the learner's conduct changes is determined by the student's preparation. Nowadays, learning and teaching may take place through internet media. These environments are distinct from those in which students and teachers interact face to face. In this medium, the instructor's willingness to educate and learn about the student should not be disregarded. Thus, readiness for online learning is defined by time management, self-direction abilities such as online learning, internal motivating tools, an awareness of one's own learning style, and experience. (2003) (Smith et al.). Borotis and Poulymenakou (2004) defined online readiness as "being mentally and physically prepared for such online learning experiences and activities," while Choucri et al. defined it as the capacity to monitor opportunities that promote the use of electronic resources such as the Internet (2003).In Ilocos Norte, most universities and colleges utilized hybrid learning where faculty and students both use synchronous and asynchronous classes. They have adopted learning management systems such as Canvas and Google Classroom. Therefore, it is safe to say that Ilocos Norte business students are exposed to online education just like their counterparts in Metro Manila.

This study was conceptualized to describe the relationship between students' attitudes and readiness towards online education. This is crucial because this determines the acceptability of online education of business students in Ilocos Norte. The results that will be obtained are considered to contribute to creating an online business education program for students. In other words, this is one of the measures covered by the needs analysis phase before the creation of a new online business education program.

LITERATURE REVIEW

Self-determination Theory

Deci and Ryan's (1985) self-determination theory has been employed in a variety of disciplines of study as a framework for understanding human motivation and personality (Ryan & Deci, 2017). It has been used as a framework to analyze student motivation and interaction as part of online learning (Sailer,2017). SDT distinguishes between different types of stimulus, gives justifications for motivating action, and recommends high-quality predictors of learning. Intrinsic motivation is regarded to be the most effective sort of motivation since it is related with acts taken for pleasure and happiness. Individuals engage in things because of a sense of necessity.

Online Education

Online learning is "a subset of distant education, a technique that often includes courses offered through mail, DVD, phone, or television—any way of learning that does not need students and instructors to be in the same area at the same time." It is referred to as e-learning, or electronic

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learning (Ko and Rossen,2010). Combining online learning with traditional face-to-face classroom activities is referred to as hybrid learning, mixed learning, or enhanced learning (Bach, 2007). Online learning may take place in a variety of locations and provides schedule flexibility for all parties involved, including learners and instructors. Online learning may be classified as synchronous or asynchronous depending on the group's manner of communication and meeting time. When both parties meet concurrently and communicate in real time, this is referred to as online synchronous learning. However, if the participants are not required to be online concurrently, asynchronous communication occurs, and this is referred to as asynchronous online learning. A combination of both is also feasible in online education (Ko and Rossen, 2010). Each state has unique benefits and drawbacks that must be addressed prior to attempting to implement online learning.

Online Education Readiness

Warner, Christie, and Choy advocated that the Australian technical education and training market be prepared for online learning (1998). They defined online learning readiness in three ways: (1) student preferences for delivery over face-to-face classroom instruction; (2) student faith in the use of electronic communication for learning, specifically competence and trust in the use of the Internet and computer-based communication; and (3) ability to participate in autonomous learning.

McVay (2000) created a 13-item instrument to measure students' preparedness for online learning in order to put the ideas of preparation into practice. The program makes predictions based on student activities and expectations. Smith as al. (2003) conducted an exploratory research to assess McVay's (2000) questionnaire on Readiness for Online Learning. The instrument was administered to 107 undergraduate university students from the United States and Australia, and it included a two-factor framework for "e-learning comfort" and "e-learning self-management." The former, or the demand for self-direction, was highlighted by Smith (2000) as an e-learning-focused feature due to the greater range of resource-based flexible learning resources available. The preceding permeates distant learning theory, which Evans (2000) defined as a necessary condition for effective resource-based distance learning. Later that year, Smith (2005) did a sample study of 314 Australian undergraduate students and stated that the McVay Readiness for Online Learning questionnaire might be beneficial for research and practice in the field of student arrangements and preferences for online learning.

The McVay tool elucidates the willingness to engage in a certain form of online resource-based learning, defining the two as possible influencing elements in the present research. However, examinations of online learners' preparation are necessary to reconcile apparent discrepancies in factors such as technical computer usage capabilities, Internet navigation skills, and learning control over the order and selection of materials that were really absent from McVay's instrument.

Students' Attitudes towards Online Education

Several studies have shown that online education and its adoption have had a significant effect on student behavior and characteristics, which have been seen as critical influences in online education in Third World countries (Bhuasiri et al., 2012). These behaviors compose of the Net's self-efficacy. Awareness of computers and the internet, lack of accessibility of computers and techniques for online education (Chu, 2010) Student expectations are often affected by the brilliance and ease of use of online education modules, the implementation and ease of use of online education, and student level and computing skills (Aixia, 2011). Their machine expertise and

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engagement, including obvious self-usage, satisfaction, and effectiveness, and the use of online schooling, play a dominant position (Liaw, 2011). After all, students' positive attitudes about online education are vital in receiving and marrying online education (Selim, 2007).

The mainstream past analysis acknowledges the obstacles to online learning and the causes that affect students' participation in online education. Research by Al-Fahad (2009) indicated that students generally agree to mobile learning because mobile networks make it easier for them to discover, acquire and work on learning opportunities independently over a limited period. Woo's (2000) findings have shown that online education dialogs have become time-consuming and demanding. Similarly, beliefs or habits about online schooling, Warnet et al. (2000) studied students who usually use the Internet in social work. The research claimed that most of the participants were aware of the Online Education Course Module concept, which was beneficial to their overall learning participation. Sandars (2002) assesses the attitude of students to allow learning sections via the internet in the tertiary biology module. Analysis has seen growing impacts on students' learning about their problem-solving systems and the growth of critical thinking skills.

On the other side, Paris (2004) also assessed and measured the cognitive, emotional and behavioral facets of the 52 students of public institutions in Australia, with particular reference to their online learning attitudes. The findings showed a more robust response from students endorsing online education services, although differences in gender-wise attitudes were registered. Finally, a review by Ullah et al. (2017) found no significant association between learning participation in computers and ease in the use of online learning. No or sporadic internet access, not knowing online education pupils, contributes to poor online learning attitudes.

Research Problems

This study determined the relationship between students' attitudes and readiness towards online education. Specifically, it answered the following research problems:

1. What is the demographic profile of the respondents in terms of:
   a. School studying;
   b. Year level;
   c. Course;
   d. Sex;
   e. Device Used in Studying?
2. What are the attitudes towards online education?
3. What is the level of learners readiness towards online education in terms of:
   a. Self-directed learning;
   b. Computer/Internet self-efficacy;
   c. Learner control;
   d. Motivation for learning; and
   e. Online communication self-efficacy?
4. Is there a relation between attitudes and learners' readiness towards online education?
5. What are the moderating effects of demographic profile in the relationship of attitudes and readiness towards online education?

Hypothesis Development

Hypothesis. There is a significant relationship between attitudes and readiness towards online education.

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In a study by Zaidah et al. (2002), it was found out that online learning is more self-directed than face-to-face learning. Research showed people with a higher degree of familiarity, skill level and duration of use were more optimistic for online learning. This study has been demonstrated that sophistication is the secret to online learning preparedness. Age and working-age are vital variables that affect the degree of preparation for online learning. The age and frequency of use of chosen programming programs also demonstrated a strong association with the level of preparedness for online teaching. The research showed that people with a higher degree of familiarity, skill level and duration of use were more optimistic about online learning. It is essential to notice that such programming programs, such as e-mail, Internet search and word processing, are almost every day among respondents. Their experience and skills related to these programming programs be strong. As a result, online learning has, to some degree, prepared sure students with programming skills and information that are vital for them to work as virtual students.

Research Paradigm

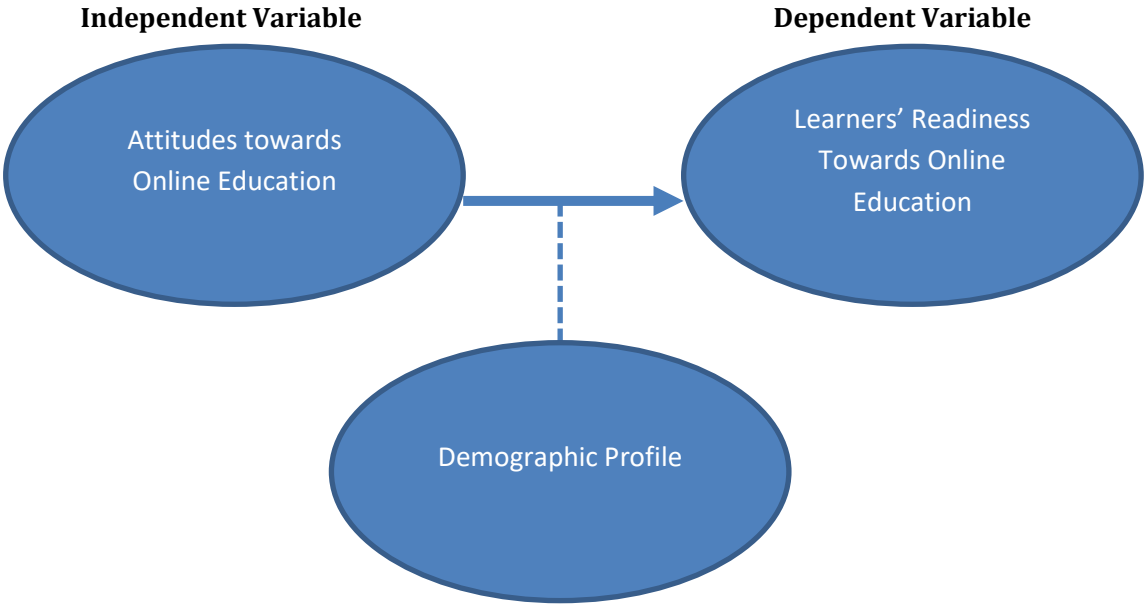

Figure 1. Research Paradigm

In Figure 1, the independent variable is the attitudes of business students, and the dependent variable is the readiness of business students towards online education. The moderating variable is the demographic profile of respondents.

RESEARCH METHOD

Participants

A convenience sample strategy was used to pick research respondents. They were tertiary students from the Ilocos Norte province's seven colleges and institutions, including Northwestern University, Mariano Marcos State University, Divine Word College of Data Center Laoag, STI-Laoag, and Ama Computer Laoag. The sample size was calculated using the Raosoft sample size calculator, with a 5% margin of error and a 95% confidence level, and an approximate population of 3500

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pupils. Virtual data collection was accomplished through the use of a Google form. Due to the fact that it was nearly gathered, the researchers were able to obtain 903 replies.

Table 1. Population and Sample Size of Universities and College

University	Population (Approximate)	Sample Size	Actual Respondents
Mariano Marcos State University	1880	211	270
NWU	803	90	594
Divine Word College of Laoag	212	28	28
STI Laoag	43	5	7
AMA Computer Laoag	40	5	6
Northern Christian College	98	11	12
Data Center Laoag	23	3	14
Total	**3,099**	**347**	**903**

Moreover, the demographic profile of the respondents are as follow:

Table 2. Demographic Profile of Respondents

Baseline Characteristics	n	%
University/college		
NWU	594	65.78
MMSU	270	29.90
DWCL	28	3.1
DATA	14	1.6
STI	7	.001
NCC	12	.01
AMA	6	.001
Year level		
1st year	225	24.9
2nd year	347	38.4
3rd year	275	30.5
4th year	36	4.0
5th year	20	2.2

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Baseline Characteristics	n	%
Course		
BS in HRM	375	41.5
BS in Tourism Mgt	317	35.1
BSBA	156	17.3
BS Accountancy	42	4.7
BS Economics	3	.3
BS in Office Administration	10	1.1
Sex		
Female	596	66
Male	307	34
Device Used in Online Class		
Laptop	166	18.4
Desktop	26	2.9
Mobile Phone	711	78.7

Table 2 reveals the respondents' demographic profile. There are 903 respondents, and out of this, 594 or 65.78% are NWU students, 270 or 29.90% are students from MMSU. Also, in the table, it can be deduced that 347 respondents or 38.4%, are 2nd-year students, and 275 or 30.5% are third-year students.

Most of the respondents (375 or 41.5%) are HRM students, and 317 or 35.1% are Tourism Management students. Only 17.3% or 156 are BSBA students. On the other hand, 596 or 66% are female, and 307 or 34% are male students. Lastly, according to the device used in online classes, 711 or 78.7% of the respondents used mobile phones as their primary device, and only 166 or 18.4% used laptops in their online courses. There are 26 or 2.90% who use their desktops.

Research Instrument

A questionnaire was utilized as the study tool. The questionnaire is divided into three pieces. The first section contains a demographic profile; the second section has information on students' preparedness for online education; and the third section contains information about students' views about online education. The demographic profile includes information on the university/college attended, the year level of study, the course taken, the device used to study, and the location. The second section was drawn from the study paper "Learner Readiness for Online Learning: Scale Development and Student Perceptions" by Hung et al." The final section was borrowed from Ullah's (2018) study, "Students' Attitudes Toward Online Learning at the Tertiary Level.""

Data Analysis

A quantitative design was used in the present study. Frequencies and weighted means were employed to explain student attitudes toward online education and readiness to online education. Moreover, a causal research approach was utilized to measure the relationships of the learner's readiness and attitudes towards online education., The structural equation modeling (SEM) using Jamovi software was used to estimate the parameters' moderation model.

Ethical Considerations

Ethical considerations are essential for study studies, as all subjects have moral and legal rights. For this study, the researcher ensures that they communicated with the participants

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personally, that they did not intrude on their privacy without their permission, that the research did not damage their feelings, and that all details obtained from them were recognized and correctly portrayed. Moreover, participants received a letter of consent virtually outlining some of the core aspects of this analysis and what is required of both the participant and the researcher.

RESULT AND ANALYSIS

Reliability Analysis

Table 3. Reliability Results

Scale Reliability Statistics

	Cronbach's α
scale	0.802

Table 3 revealed that the Cronbach Alpha of the questionnaire is .802, which is interpreted as respectable. The acceptable Cronbach alpha is 0.70 or higher, which means that the questionnaire being utilized is generally reliable.

Students Attitude Towards Online Classes

Table 4. Students Attitude Towards

Items	Weighted Mean	VI
It is difficult to understand online learning without getting acquainted with appropriate guidance.	3.41	Always
It isn't easy to favor online learning regularly due to most little face-to-face interaction among students and teachers.	3.32	Always
Slow computers and poor internet connections discouraged to use of online learning.	3.53	Always
As a valuable program suggested for peers to utilize online learning for online learning materials.	3.15	Often
Online learning is often avoided as it promotes social isolation.	2.99	Often
Online learning highly motivates the students to take advanced courses.	2.73	Often

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Using online learning makes learning interesting.	2.63	Often
OVERALL	3.10	Often

4.00-3.26 Always
3.25-2.51 Often
2.50-1.76 Sometimes
1.75-1.00 Never

Table 4 explains the attitudes of business students towards online learning. It can be deduced that students find it difficult to understand online learning without proper guidance (x= 3.41) with a verbal interpretation of Always. This means that without the help of faculty members, students find online education hard to cope up. Also, slow computer and internet connections discourage students from using online classes (x= 3.53) with a verbal interpretation of Always. Although students are discouraged, they do not have an alternative because business schools already shifted to remote learning because of the pandemic. Also, most students do not favor online education over face-to-face education (x=3.32) with a verbal interpretation of Always.

Learners' Readiness

Table 5. Learners' Readiness in terms of Self-Directed Learning

Items	**Weighted Mean**	**VI**
I set up my learning goals	3.38	Highly Ready
I carry out my study plan	3.18	Moderately Ready
I have higher expectations for my learning performance	3.10	Moderately Ready
I seek assistance when facing learning problems	3.24	Moderately Ready
I manage my time well.	3.03	Moderately Ready
OVERALL	3.19	Moderately Ready

4.00-3.26 Highly Ready
3.25-2.51 Moderately Ready
2.50-1.76 Slightly Ready
1.75-1.00 Not Ready

Based on Table 5, the Learners' Readiness in terms of Self- Directed Learning is x= 3.19 with a verbal interpretation of Moderately Ready. This means that business students are not so ready to

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learn using the online platform. Looking closer from the table, it can be deduced that the item with the highest mean is "I set up my learning goals" with a weighted mean of 3.38 and a verbal interpretation of Highly Ready. Advising of the instructors and communication of learning goals of the business students are necessary. Business students of Ilocos Norte have learning goals and objectives.

On the other hand, the lowest mean is the item "I manage my time well" with a weighted mean of 3.03 and verbal interpretation of Moderately Ready. Because of many distractions in their respective homes, business students find it challenging to concentrate on their studies.

Table 6. Learners' Readiness in terms of Computer/Internet Self Efficacy

Items	Weighted Mean	VI
I feel confident in using the Internet (Google, Yahoo) to gather information for online learning.	2.94	Moderately Ready
I feel confident in performing the basic functions of Microsoft Office programs (MSWord, MS Excel, and MS PowerPoint).	3.06	Moderately Ready
I feel confident in my knowledge and skills of how to manage software for online learning.	2.96	Moderately Ready
OVERALL	2.99	Moderately Ready

4.00-3.26 Highly Ready
3.25-2.51 Moderately Ready
2.50-1.76 Slightly Ready
1.75-1.00 Not Ready

Table 6 denotes that the learners' readiness in terms of computer/internet self-efficacy is Moderately Ready with a weighted mean of 2.99.

It can be deduced from the table that the item with the highest weighted mean "I feel confident in performing the basic functions of Microsoft Office programs (MSWord, MS Excel, and MS PowerPoint)" with x=3.03 and a verbal interpretation of Moderately Ready. This denotes that business students are not highly skilled in the different Microsoft programs which teachers usually utilize in their classes. Moreover, the lowest mean is "I feel confident in using the Internet (Google, Yahoo) to find or gather information for online learning." With a weighted mean of 2.94 and verbal interpretation of Moderately Ready. This can be interpreted as business students cannot fully maximize internet use because of slow internet connections in the locality.

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Table 7. Learners' Readiness in terms of Learner Control

Items	Weighted Mean	VI
In my online context, I can direct my own learning progress.	2.89	Moderately Ready
In my online context, I repeat the online instructional materials based on my needs.	3.10	Moderately Ready
I am not distracted by other online activities in my online context when learning online (Instant messages, Internet surfing).	2.64	Moderately Ready
OVERALL	2.88	Moderately Ready

4.00-3.26 Highly Ready
3.25-2.51 Moderately Ready
2.50-1.76 Slightly Ready
1.75-1.00 Not Ready

The data presented in Table 7 shows that in terms of learner control, business students are also Moderately Ready with an overall weighted mean of 2.88. Learner control applies to educational techniques that enable business students to control the activities of the lesson. It implies that learners decide on the order, speed, flow, number, and analysis of instruction independently. Allowing learners to direct their learning means that instructional authority is delegated to respect their differences to maximize their benefits (Simsek,2012).

Looking closer at the table, the item with the highest mean is "In my online context, I repeat the online instructional materials based on my needs" with a verbal interpretation of Moderately Aware and a weighted mean of 3.10. This means that some business students in Ilocos cannot understand online instructions or are distracted in online education. This is also aligned with the lowest item of "In my online context, I am not distracted by other online activities when learning online (Instant messages, Internet surfing)." with a weighted mean of 2.64. Students are distracted by other online activities such as surfing and playing online games.

Table 8. Learners' Readiness in terms of Motivation for Learning

Items	Weighted Mean	VI
I am open to new ideas.	3.37	Highly Ready
I like to share my ideas with others.	3.24	Moderately Ready

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I improve from my mistakes.	3.44	Highly Ready
I have the motivation to learn.	3.45	Highly Ready
OVERALL	3.38	Highly Ready

4.00-3.26 Highly Ready
3.25-2.51 Moderately Ready
2.50-1.76 Slightly Ready
1.75-1.00 Not Ready

Based on Table 8, the overall mean of learners' readiness for learning motivation is 3.38 with a verbal interpretation of Highly Ready. Education is self-initiated, but it needs the motivation to keep the learner engaged in the learning process. The results showed that the business students of Ilocos Norte are motivated to learn (x=3.45), but they don't like to share ideas with others (x=3.24)

Table 9. Learners' Readiness in terms of Online Communication Self-Efficacy

Items	**Weighted Mean**	**VI**
I feel confident in expressing myself (emotions and humor) through text.	2.97	Moderately Ready
I feel confident in using online tools (email, discussion) to effectively	2.98	Moderately Ready
Communicate with others.	3.18	Moderately Ready
I feel confident in posting questions in online discussions.	2.69	Moderately Ready
OVERALL	2.96	Moderately Ready

4.00-3.26 Highly Ready
3.25-2.51 Moderately Ready
2.50-1.76 Slightly Ready
1.75-1.00 Not Ready

In Table 9, it can be revealed that in terms of online communication self-efficacy, business students are Moderately Ready towards online education. It can be divulged that the item with the highest mean is " Communicate with others." With a mean rating of 3.18 and verbal interpretation of moderately ready. Looking closely at the table, the lowest weighted mean is "I feel confident in posting questions in online discussions." (x=2.69) with the verbal interpretation of Moderately Ready.

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Relationship of Attitudes towards Online Education and Learners' Readiness

Table 10. Relationship of Attitudes and Learners' Readiness

Model Fit Measures

Model	R	R^2
1	0.341	0.117

Model Coefficients - Learners' Readiness

Predictor	Estimate	SE	t	p
Intercept	2.372	0.0767	30.93	< .001
Attitudes	0.227	0.0245	9.25	< .001

It is presented in Table 10 the linear regression of attitudes towards online education and learners' readiness. It can be seen in the table that the p-value is <.001, which means that the relationship is significant. The upper table shows the fit of the model with R = .341, which stands for the correlation coefficient. The R2, on the other hand, is equivalent to .117.

Moderation Results

Table 11. Moderating Effect of Demographic Profile in the Relationship of Attitude and Learners" Readiness

Indirect and Total Effects

				95% C.I. (a)				
Type	Effect	Estimate	SE	Lower	Upper	β	z	p
Indirect	Attitudes ⇒ School ⇒ Learners' Readiness	-0.00335	0.00256	-0.00837	0.00167	-0.00436	-1.3082	0.191
	Attitudes ⇒ Year Level ⇒ Learners' Readiness	0.00519	0.00315	-9.78e−4	0.01137	0.00676	1.6493	0.009
	Attitudes ⇒ Course ⇒ Learners' Readiness	-1.11e−5	1.34e-4	-2.74e−4	2.52e-4	-1.45e−5	-0.0831	0.934

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Indirect and Total Effects

				95% C.I. (a)				
Type	**Effect**	**Estimate**	**SE**	**Lower**	**Upper**	**β**	**z**	**p**
	Attitudes ⇒ Gender ⇒ Learners' Readiness	-5.09e−6	1.03e-4	-2.07e−4	1.97e-4	-6.62e−6	-0.0494	0.961
	Attitudes ⇒ Device Used ⇒ Learners' Readiness	0.00234	0.00222	-0.00201	0.00669	0.00304	1.0537	0.292
Direct	Attitudes ⇒ Learners' Readiness	0.22248	0.02420	0.17504	0.26992	0.28943	9.1920	< .001
Total	Attitudes ⇒ Learners' Readiness	0.22665	0.02445	0.17874	0.27457	0.29512	9.2714	< .001

Note. Confidence intervals computed with method: Standard (Delta method)

Note. Betas are completely standardized effect sizes.

Table 11 shows the moderating effect of a personal profile on the relationship of attitudes towards online education and learners' readiness. Examining the p-value of the moderation analysis done, it is revealed that there is the moderating effect of year level to the relationship of the independent variable and dependents variable. This means that the higher the year level of the business students, the stronger the association of attitudes towards online classes and learners' readiness. Another significant finding of the table confirms that there is a relationship between attitudes and learners' readiness towards online education. This means that the more positive the students' attitudes, the more ready in terms of online education.

CONCLUSION AND RECOMMENDATION

The current study aimed to assess students' attitudes toward online education and online learning readiness among business students in Ilocos Norte. They are enrolled in business courses at the province's various universities and colleges. Overall, the participants seem to have pessimistic views about remote learning and are only moderately prepared to adopt online learning. Many of them are only marginally prepared for self-directed online learning and lack trust in their online communication skills. Nonetheless, the participants' computer, internet, and device capabilities must be improved to participate in the proposed online learning curriculum. In a nutshell, they ought to develop their machine and internet self-efficacy.

One more interesting finding of the present study is that most students used smartphones in their remote education. This affects the quality of education since students cannot concentrate or can be distracted. A study by Darko-Adjei (2019) found that the use of smartphones harms students' academic activities, with smartphones, for example, shifting users' focus due to their addictive nature, intruding calls coming in during lecture hours, and the tendency to check social media platforms distracting distance learning students, among other factors. Also, according to Ifeanyi and Chukwuere (2018), based on how mobile is used, it has both a harmful and positive

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impact on students. Furthermore, the author highlights the dark side of the coin, under which the mobile has been a significant study diversion. If not explicitly regulated, students who are glued to their smartphones, for example, have a solid propensity for review alerts or notifications almost any minute. As a result, they are distracted from their studies, even during lecture times when the lecturer is at his or her most efficient. The author concluded that the effect of smartphones on academic success and student learning is complicated. In addition, a handset may be suspended at the height of a learning moment, among other things.

Moreover, in terms of the relationship of attitudes and learners' readiness, it is evident in the results that there is a significant relationship between the two variables. This means that students with positive attitudes towards online education are more ready to study this kind of setup. In the moderation analysis, only the year level was the mediator of the two variables. This means that the higher the year level, the stronger the relationship between attitude and learners' readiness.

Limitations of the Study

It's necessary to note that the present analysis has certain drawbacks. All of the results and assumptions are restricted to business students in the province of Ilocos Norte due to the scope of the research. The students' preparation for online learning is calculated using a mini scale, which can be deemed accessible due to the small number of objects. As opposed to other related scales in the literature, this one was a realistic option since it was validated and accurate. Furthermore, owing to a time constraint and limited access to data, it was essential to capture an image of truth in a single, high-quality clip. The OLRS questionnaire, created by Hung, Chou, Chen, and Own, was used (2010). Different data processing techniques and software may be used to triangulate and verify the gathered data.

Research Implications and Recommendations

Because of the current study's conclusions, there are a few fundamental concerns that must be addressed in this sense. The problems are specifically related to learner autonomy in an online environment and machine and internet self-efficacy. First and foremost, the students feel uncomfortable since they might be overwhelmed by other online behaviors such as text messages or browsing while studying online. Second, they seem to lack trust in using the simple features of word, excel, and PowerPoint systems. Last but not least, they have reservations regarding their understanding and ability to handle online learning applications.

The following recommendations should be used for particular target populations and similar issues based on these inferences. It seems that the students' simple internet and programming skills need to be improved. The first phase is to put together beginner educational classes, lectures, and courses for the target students. They should be offered chances to train in similar settings and to develop their abilities. Rigorous training sessions must overcome their obstacles to online learning and their concerns regarding the distracting aspects of online learning environments. Alternative options should be discussed with both stakeholders, and related precautions should be taken until the needs have been evaluated and vulnerable areas identified. Learners should be told of various aspects of online learning, such as services, issues, and potential responses to such problems. They need to understand what online environments with an emphasis on international language learning bring to the table. Accessible learning environments or learning management frameworks that need less experience might be favored in the beginning stages to prevent potential complications caused by program usage. Furthermore, support centers, contact centers, and postal systems can

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help respond to urgent technological queries or assistance. In summary, it is essential to train students for such innovation and to assist them in overcoming the difficulties as quickly as possible..

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