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ABSTRACT

This research study aims to investigate the relationship between technostress and e-learning among university students, and whether the attitude towards e-learning serves as a moderator for this relationship. Technostress is a growing issue in the digital age, as more and more individuals rely on technology for work and education. E-learning has become a common alternative to traditional classroom learning, especially in light of the COVID-19 pandemic. However, the adoption of e-learning may increase technostress in students, impacting their academic performance and well-being. A descriptive-correlational design was employed, and data were collected through a survey questionnaire administered to students from Cagayan State University's eight campuses. Results indicate that the respondents have a neutral attitude towards online learning and moderate levels of technostress. Furthermore, a negative relationship was found between technostress and attitude towards e-learning, suggesting that promoting positive attitudes towards online learning and providing support to manage technostress could be effective strategies to enhance students' experiences and performances in e-learning. Future research should concentrate on additional factors to acquire a thorough picture of university students' online learning experiences. The study advises improving ICT resources to make online teaching and learning more successful. Overall, this study sheds light on the prospects and difficulties of e-learning in higher education and emphasizes the significance of controlling technostress to maximize its advantages.

Keywords: E-learning, Attitude, Technostress, University Learning, COVID19, Pandemic

INTRODUCTION

The advent of COVID-19 has brought numerous changes in the life of people today. It has re-ordered almost all aspects of human life. In education, COVID-19 has introduced the massive use of online learning because of the government protocols on social distancing and no gathering to avoid the spread of the virus. COVID-19 has undoubtedly had a significant impact on students, teachers, and educational institutions all throughout the world, much as many other facets of daily life (Mailizar, et al., 2020). Schools, colleges, and universities all throughout the world had to close their doors due to the pandemic so that students may practice social segregation (Toquero, 2020).

Interestingly, the learning environment enabled by online learning tools depends heavily on student attitudes about online learning. People's attitudes are influenced by their thoughts, feelings, and actions toward an attitude object (Triandis, 2011). Positive attitudes toward learning can support the successful use of learning procedures. Strong attitudes can direct behavior (Maio & Haddock, 2009).

Students who learn online frequently need to assume greater responsibility for their own education. Students cannot just go to class and follow the crowd. They must take the independent step of logging into the virtual classroom, but once there, they will find remarks from the teacher and other students. As a result, attitude and time management are essential components for finishing online courses.

The conduct of online classes has been problematic for many students. Numerous issues, problems, and challenges have emerged like problems on connectivity, the increasing cost of online classes, and availability of online materials. Furthermore, the effectiveness of online learning has come into question because face-to-face training will never be able to compete with it. But one of the growing issues in today's world is how students feel about online education. This highlights the importance of students' attitudes toward online learning in the learning environment enabled by online learning tools. According to Triandis (2019), students who have a good attitude toward online learning can set an example for others and help to produce successful learning outcomes. It's interesting to note that students with strong academic interests commonly use e-learning platforms, have a favorable attitude toward using them, and find that doing so increases their situational interests (Indreica et al.,

2016). Additionally, students' attitudes toward e-learning are favorable and are thought to be one of the most crucial aspects of using e-learning. (Jasuli, 2018).

Although it is clear that technology has many educational advantages, earlier studies shown that, in some situations, technology use might lead to stress. According to Brod (1984), "a modern disease of adaptation caused by inability to cope with new computer technologies in a healthy manner" is technostress. There could be a number of causes for this type of stress. To start, the digitization of learning frequently creates a desire for learning new topics and implementing new technologies, necessitating extra work and maybe leading to an increase in workload and time constraints. As a result, stress can be interpreted as an indication of learning. Learners may also be required to adjust how they learn as a result of the digitization of learning (Turel & Gupta, 2015.) Furthermore, technostress can manifest itself in situations where students feel compelled to increase their instructional use of ICT despite their personal learning habits and styles. The bring-your-own-device ideology, for example, puts students in an unfair role based on their device ownership. In fact, according to Chen (2015), technostress research is still in its infancy. There are currently no conceptual models or longitudinal research on the impact of information technology on educational settings. Although technostress is a common and global phenomenon today, research efforts in this area, particularly empirical and cross-cultural studies, have been very limited.

Technostress in education has received little attention in research (Johnson et al., 2012) so much more with students who are directly affected by online learning. There aren't many studies on students' attitudes about online learning during the COVID-19 pandemic, according to Khan (2020). Given the aforementioned limitations, this study views the problem of learners' attitudes and technological stress as relevant. There has been a lot of research on how students feel about online learning and how they manage their time, but the findings are often contradictory and imprecise. Moreover, extant literature is replete with studies linking students' attitude on online learning to technostress. It is in this perspective that this study has been conceptualized in order to shed light on the relationship of attitude and technostress along online learning. Results of this study can serve as baseline data in developing framework and policies needed to improve the conduct of online learning towards enhancing students' learning outcomes.

METHODOLOGY

This study used the descriptive-correlational design to answer the research questions. This research was undertaken in Cagayan State University's eight campuses (CSU). The university is located in the Philippines' Northern Region. In the entire Cagayan Valley Region, CSU is the largest state institution of higher learning in terms of enrolment and program offerings. Students from all levels of the university served as the respondents. The Slovin's formula was used to calculate the sample size, and stratified random sampling with groups by campus was used. The sample was calculated using Slovin's formula, and proportionate sampling was used to distribute samples around campuses. The population and sample size of students in each campus are presented in Table 1.

Table 1: Distribution of respondents by Campus

Campus	Population	Sample
Andrews	5619	567
Aparri	3482	396
Carig	8415	804
Gonzaga	1512	167
Lallo	1025	104
Lasam	743	85
Piat	1437	177
Sanchez Mira	1981	209
TOTAL	24,214	2,509

Three components made up the single survey questionnaire used in this investigation. The first tool elicited the respondents' personal information and online learning resources.

The students' attitudes toward online learning were assessed using the second tool. The instrument was adapted from Kisanga and Ireson's (2016) Test of e-Learning Related Attitudes (TeLRA) Scale. Its Cronbach alpha value is 0.877 and it assesses the respondents' knowledge of and attitudes toward e-learning. The respondents' level of technostress was assessed using the third tool. The instrument was adapted from a study by Booker et al. (2014) on technological stress in online learning. The 20 statements in the instrument are split up among the five aspects of technological stress, which are (a) technological overload, (b) technological invasion, (c) technological complexity, (d) technological insecurity, and (e) technological uncertainty.

The attitude toward online learning and degrees of technological stress was presented using descriptive statistics (frequency counts, percentages, and averages). Due to the study's violation of the assumptions of normal distribution and homogeneity of variance, nonparametric tests were used for hypothesis testing. The link between technostress and attitude in online learning was examined using Kendall's tau-b analysis. Using IBM SPSS, all analyses were tested at the 0.05 level.

RESULTS AND DISCUSSION

Attitude of the respondents about online learning

Table 2 presents that respondents have neutral attitude about online learning as revealed by the grand mean of (\bar{x} =2.71). This finding means that they have either positive or negative thinking and feeling about the use of internet as a mechanism to carry out teaching and learning. The finding also implies that they either enjoy teaching and learning using computers and that they hold a neutral belief that e-learning technology will improve their performances. Interestingly, the findings also implies that their either find e-learning technology be easy or difficult and that discussions are either interesting and uninteresting. Significantly, the findings also implies that online leaning may or may not be a motivational platform among the respondents as compared to face-to-face modality. Such results go counter to the notion that e-learning was generally favorably received by students and had a favorable effect on their motivation and self-esteem. (Kim et.al, 2011).

The statement which obtained the highest mean is E-learning is very economical for educational institutions to adopt (\bar{x} =4.48-very favorable). This finding indicates that the cost of conducting online learning is reasonable. As compared to the budget of face-to-face learning which requires high cost for boarding house, allowances, travel and food expenses, the online learning entails lesser expenditures. This may be one of the reasons why the respondents have found e-learning to be very economical. Such condition may reveal that students prefer online learning than face-to-face in terms of cost to education. It raises the standard of autonomous work done by students at their own pace, allows for practical evaluation of the knowledge obtained, and increases the level of self-motivation, responsibility, and self-discipline. E-learning also enables educational institutions to keep a competitive edge while adapting to quickly changing settings. Such programs speed up the spread of knowledge and offer chances for personalized learning and new forms of collaborative learning. (Gross & DeArmond, 2018).

The statement which garnered the lowest means are I enjoy game-based instruction very much (\bar{x} =1.53-very unfavorable) and I find computer online interaction unexciting (\bar{x} =1.54-very unfavorable). The very unfavorable attitude of the respondent about game-based instruction may imply that games are not much introduced and integrated during online learning. Possibly, teachers are not technically knowledgeable about game-based instruction and that they needing trainings on this approach to make their online teaching more fun and exciting. The data also signifies that respondents are wanting to have more games introduced as they learn new concepts from their subjects. This finding is consistent with the study that game-base learning is effective in improving students' learning (Troussas et.al, 2021). On the other hand, the very unfavorable attitude of the respondents about online instruction as unexciting means that they want online learning to be stimulating. This provides feedback among teachers of the desire of the students to learn with excitement through diverse and meaningful instruction. They learn better when they experience the topic with fun and interest. According to Nozaleda et.al (2021), online learning can be fun and exciting as the activities used can be loved by learners.

Table 2: Respondents' Attitude about Online Learning

Statements	Mean	Interpretation
Adopting e-learning is quite affordable for educational institutions.	4.48	Strongly Agree (Very Favorable)
I think utilizing online learning will raise the caliber of my outputs.	4.41	Strongly Agree (Very Favorable)
Computers increase the interest in learning.	4.08	Agree (Favorable)
In e-learning, I like to read articles.	4.01	Agree (Favorable)
Electronic educational materials are simpler to update than printed materials.	4.07	Agree (Favorable)
To prepare my classes, I prefer to use a computer.	1.56	Strongly Disagree (Very Unfavorable)
Compared to reading a physical book, I find reading a text book on a computer screen to be uncomfortable.	2.04	Disagree (Unfavorable)
I like using technology to teach.	1.61	Strongly Disagree (Very Unfavorable)
It is exceedingly challenging to provide a lecture using modern tools.	2.03	Disagree

		(Unfavorable)
It costs a lot to provide technical assistance for e-learning.	1.66	Strongly Disagree (Very Unfavorable)
E-learning lowers the standard of knowledge acquired.	1.63	Strongly Disagree (Very Unfavorable)
It can be difficult to interact with computers.	1.73	Strongly Disagree (Very Unfavorable)
Compared to e-learning, face-to-face instruction is more learner-centered.	2.02	Disagree (Unfavorable)
I think adopting e-learning tools will help me learn more effectively.	4.37	Strongly Agree (Very Favorable)
Communicating through different learning platforms is fun.	2.62	Neither Agree nor Disagree (Neutral)
I enjoy reading magazines about new technological developments.	4.01	Agree (Favorable)
E-learning makes learning difficult.	1.97	Disagree (Unfavorable)
E-learning makes students more socially isolated	1.73	Strongly Disagree (Very Unfavorable)
The usage of e-learning tools is challenging.	1.72	Strongly Disagree (Very Unfavorable)
Computer use needs a significant mental effort.	2.01	Disagree (Unfavorable)
E-learning technology discussions are boring.	1.65	Strongly Disagree (Very Unfavorable)
We have the necessary infrastructure to implement e-learning at my school.	3.82	Agree (Favorable)
E-learning increases learners' efficiency.	4.22	Strongly Agree (Very Favorable)
Working with computers is exciting.	4.04	Agree (Favorable)
Innovations in e-learning are a topic I enjoy debating.	4.20	Strongly Agree (Very Favorable)
It's not easy to help students who are studying online.	2.08	Disagree (Unfavorable)
The university has a hard time affording the necessary technology to provide online education.	3.38	Neither Agree nor Disagree (Neutral)
Learning how to effectively utilize e-learning resources will be challenging for me.	1.92	Disagree (Unfavorable)
When I use a computer, I often make mistakes.	1.98	Disagree (Unfavorable)
It's incredibly annoying to use a computer at home.	1.92	Disagree (Unfavorable)
Taking advantage of e-learning tools can help me get more done in less time.	4.24	Strongly Agree (Very Favorable)
I enjoy game-based instruction very much.	1.53	Strongly Disagree (Very Unfavorable)
Online education poses a risk to students' academic success.	1.61	Strongly Disagree (Very Unfavorable)
I find that the opportunities for education that e-learning presents are superior than those presented by more conventional ways.	4.15	Agree (Favorable)
Online communication via computer is boring to me.	1.54	Strongly Disagree (Very Unfavorable)
Emailing is a frustrating method of communication.	1.56	Strongly Disagree (Very Unfavorable)
Grand Mean	2.71	Neither Agree nor Disagree

	(Neutral)
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Respondents' Technostress along Techno-overload

Table 3 shows the that the technostress along techno-overload of the respondents is moderate ($\bar{x}=2.41$). Such finding connotes that they experience average stress in their online learning as they are forced to work in an extended time. The extended time in working before computer may be attributed to the many assignments or projects that the teacher require from them seek finding supports the study that online learning has increased on the workload and workplace, due to the pandemic (Guangul et al, 2020).

The statement "I have to alter my study routine in order to keep up with technological advancements" was ranked as a major source of anxiety. ($\bar{x}=3.41$). This finding reveals that the respondents experienced much stress in adapting to new technologies brought about by the first implementation of online learning. It must be noted that students were never exposed to online learning prior to the pandemic. With the sudden shift of learning modality from face to face to online learning, they were caught flat-footed on how to manage their classes.

I am under intense time pressure due to technological constraints, which received the second most total votes. ($\bar{x}=2.61$ -moderate). The average stress experienced by the respondents along this statement implies that they had a small amount of time to do their academic tasks. Also, they experienced difficult adjustments in handling their time schedule especially in completing their academic tasks.

The least popular answer was "I have to spend a lot of time every day reading an overwhelming amount of e-mails," which reflects the reality for many people. ($\bar{x}=2.47$ -mild stress). The mild stress experienced by the respondents along this statement reveals that they have light stress receiving messages from their teachers regarding their learning activities. This finding maybe attributed to the fact that the teachers were required by their deans to consider the number of requirements, projects, assignments, and other tasks for submission by the students.

Table 3. Respondents' Technostress along Techno-overload

Statements	Mean	Interpretation
I am forced by this technology to work with very tight time schedules.	2.61	Moderate Stress
I am forced to change my study habits to adapt to new technologies.	3.41	Much Stress
I have a higher workload because of increased technology complexity.	2.61	Moderate Stress
I have a higher workload because of the online learning environment.	2.60	Moderate Stress
I have to spend a lot of time everyday reading an overwhelming amount of e-mail messages.	2.47	Mild Stress
I have to spend a lot of time everyday reading an overwhelming amount of discussion board messages.	2.49	Mild Stress
Grand Mean	2.70	Moderate Stress

Respondents' Technostress along Techno-invasion

Table 4 presents that the respondents' had mild stress along techno-invasion ($\bar{x}=2.58$) which implies that they had light stress on constant connectivity which maintains their continuous availability for online learning. This experience of the respondents reveals that they are not required at all time to have online learning. This scenario can be attributed to the blended learning employed in the university in which teachers may have synchronous and asynchronous classes. In this regard, the students have reduced exposure to online classes.

Respondents' top source of anxiety was ranked as follows: "I have to give up precious vacation and weekend time to stay abreast of changes to the courses and learning environment." ($\bar{x}=3.40$). This finding implies that they missed or compromised their vacation and other recreational activities due to their online classes. The demands and adjustments made in their online learning need them not to perform their leisure activities which may also be brought by the lockdown and strict protocols implemented in pandemic.

I feel like my personal life is being invaded by this learning environment was the most common source of mild stress among responders. ($x=2.23$) and because of this technology, I have less quality time with my loved ones. ($\bar{x}=2.10$). This finding reveals that they had experienced light stress in their personal life because of their online learning. Such maybe accounted to the adjustment that needed to observe with the sudden shift from face to face to online learning. The usual personal and family activities that they do were already compromised because the change on their schedule and learning modality not to mention the abnormal conditions brought by the pandemic.

Table 4: Respondents' Technostress along Techno-invasion

Statements	Mean	Interpretation
Keeping up with the courses and the new learning environment requires me to give up my vacation and weekend time.	3.40	Much Stress
This classroom is intruding too much into my life.	2.23	Mild Stress
Technology has caused me to neglect my family.	2.10	Mild Stress
Grand Mean	2.58	Mild Stress

Respondents' Technostress along Techno-complexity

Table 5 reveals that respondents had moderate stress along techno-complexity ($\bar{x}=3.04$). This data suggests that while acquiring and mastering new programs for their online learning, light stress was encountered. It must be noted that new applications were introduced by the teachers in their online learning such as google meet, zoom, google form, CSU LENS, schoology, and the like. These applications were new to the students but because they are millennials, it was not difficult for them to make necessary adjustments and they did not find the applications, functions, and jargon intimidating. Fischer et.al (2021) found that students during the pandemic experienced difficulty and adjustments in the different platforms used by their teacher

For many responders, it was the statement, "I find new students to this program know more about computer technology than I do," that caused the most anxiety. ($\bar{x}=3.55$). This finding implies that they find themselves to be lacking in competence in comparison with others particularly in using the applications used for online learning. This experience maybe attributed to the fact that it was their first time to be exposed with these applications.

The statement "I do not know enough about this technology to complete my courses satisfactorily" received the fewest votes and the lowest mean. ($\bar{x}=3.15$ -mild stress). Such finding implies that they had light stress in adjusting and in utilizing the various applications use for the online learning. Again, this maybe attributed to their exposure to the new applications and new teaching modality.

Table 5: Respondents' Technostress along Techno-complexity

Statements	Mean	Interpretation
I can't seem to fit in the necessary study time to keep up with the program's technological requirements.	3.15	Moderate Stress
Newcomers to our program generally have a deeper understanding of computer science than I do.	3.55	Much Stress
The learning tools are usually too complicated for me to fully grasp and use.	3.06	Moderate Stress
There is so much I don't understand about this technology that I can't do well in my classes.	2.38	Mild Stress
Grand Mean	3.04	Moderate Stress

Respondents' Technostress along Techno-insecurity

Table 6 reveals that the respondents have moderate stress along techno insecurity ($\bar{x}=3.12$) It suggests they are worried about the influence of peers who are more proficient with cutting-edge technology and advanced software. Because of the sophistication of modern technology (smartphones, the perfect pad) and software, (microsoft teams, schoology, LENS) which are available and mastered by their counterparts.

I find younger kids more easily adapted to changes in the learning environment is the question that caused the most anxiety among responders. ($\bar{x}=3.97$). This finding means that they feel in secured when younger students are more adept in the use new devices and applications. Such feeling limits their level of competitiveness in their academic undertakings.

The same feeling of much stress is reflected in the item I find younger students in this program know more about computer technology than I do ($\bar{x}=3.93$). Such finding maybe accounted to the fact that younger students tend to be more updated in the latest forms of technology. In this regard, they feel threatened that they could not perform better in their academic tasks.

I don't want to get caught cheating, so I don't discuss what I know with my friends, which was the item that caused the respondents the most minor concern.. ($\bar{x}=2.06$) and I'm always worried that the emergence of new technology will make it impossible for me to finish the course. ($\bar{x}=2.51$). This finding implies that they are hesitant in sharing their knowledge and feel anxious to successfully finish the course because of the new technology and applications. Such feeling maybe accounted to the fact that they never had been exposed on these new devices and applications during their face-to-face classes. With the pandemic, the respondents have been overwhelmed with the emerging and diverging applications utilized during their online classes.

Table 6: Respondents' Technostress along Techno-insecurity

Statements	Mean	Interpretation
I am afraid of being labeled a cheater if I were to share my insights with my classmates.	2.06	Mild Stress
Younger pupils in this program have far superior knowledge of computer systems to my own.	3.93	Much Stress
I've found that younger students are more flexible and open to new ways of learning.	3.97	Much Stress
I worry that the introduction of new technologies will make it impossible for me to finish the course.	2.51	Mild Stress
Grand Mean	3.12	Moderate Stress

Respondents' Technostress along Techno-uncertainty

Table 7 shows that the respondents have moderate stress along techno uncertainty ($\bar{x}=3.07$). This information shows that they are anxious since their skills quickly become obsolete and they must constantly acquire new ones. It is to be noted that online classes ushered numerous applications among teachers and this gives overwhelming experience on the respondents on how to learn them. Similar feeling is experienced when they take the examinations in which the teachers use differing applications for their assessments.

I have to work harder because of delays caused by hardware, software, and network problems was the most stressful aspect, according to respondents. ($\bar{x}=3.93$). This finding suggests that they encountered much stress in addressing their problems on hardware, software, and network especially there is technical problem in their device, when the internet signal is unstable, and there is power interruption (Nozaleda & Agorilla, 2019).

Another item to which the respondents have experienced moderate stress is There are always new developments in the technologies we use in our program ($\bar{x}=3.23$). The moderate stress to this item is accounted to the fact that the online learning offered various platforms for teaching and learning. Every teacher uses different technologies and applications in their teaching and this causes moderate stress among the students because these are not familiar to them.

The item in which the respondents experienced mild stress is There are constant changes in computer software in our program ($\bar{x}=2.56$). This finding corroborates the earlier data that developments in computer technology are ever increasing. With this, the respondents are anxious about their abilities to adopt to the changes of technology in order for them to successfully finish their course.

Table 7: Respondents' Technostress along Techno-uncertainty

Statements	Mean	Interpretation
Hardware, software, and network issues have caused me to have to work longer hours.	3.42	Much Stress
Our program is always adapting to accommodate new technologies.	3.23	Moderate Stress
Our software is always evolving to accommodate new features and improvements.	2.56	Mild Stress
Grand Mean	3.07	Moderate Stress

Summary Table on the Respondents' Technostress

Table 8 shows that the overall technostress of the respondents is moderate ($\bar{x}=2.90$) which means they experienced average discomposure and anxiety in learning and using computer technology. Such feeling of tenseness may be accounted to the fact that online learning has provided them various forms of devices and applications that caused them to be anxious in their learning. Significantly, such discomposure is reflective of their adjustments with the new devices and applications introduced by teachers in their online classes. However, constant exposure and familiarization to these platforms may help them reduce their technostress through time.

Among the dimensions of technostress, the respondents obtained highest mean along Techno-insecurity ($\bar{x}=3.12$ -moderate stress) which implies that they are threatened by other students who have a better understanding of new gadgets and applications. They feel anxious about their academic performance when they observe that their classmates are better off in their knowledge of new platforms and gadgets use by the teacher. Such feeling of insecurity could be attributed to the fact that majority of the respondents are only using smartphones with limited access due to the cost of internet connection. This is not to mention that they live in far flung areas where there is poor connectivity.

The dimension which obtained the lowest mean is Techno-invasion (\bar{x} =2.58-mild stress) in which the respondents are anxious that their teachers can potentially reach them anywhere and any time. In such case, they are constantly connected with their teachers and it is almost impossible to "cut away." There always a feeling that the teachers may give them something to do or remind them of their submissions from time to time.

Table 8:Summary Table on the Respondents' Technostress

Dimension	Mean	Interpretation
Techno-overload	2.70	Moderate Stress
Techno-invasion	2.58	Mild Stress
Techno-complexity	3.04	Moderate Stress
Techno-insecurity	3.12	Moderate Stress
Techno-uncertainty	3.07	Moderate Stress
Grand Mean	2.90	Moderate Stress

Relationship between the technostress of the respondents with their attitude on online learning and time management along online learning

Kendall's tau-b correlation was used to analyze the link between respondents' technostress and their perspective on e-learning, as shown in Table 9. The correlation between technostress and outlook was shown to be unfavorable. This implies that the higher the score in attitude, the lesser is the stress along online learning. Such inverse relationship is acceptable because students who have better attitude and have good time management in online learning are more likely to have lesser technostress. As they have greater liking to online learning, they are less likely to experience anxiety, discomfort and fear to technology and platforms used in their synchronous classes. This supports prior studies (Hosseini et al., 2013) that found an inverse relationship between time management and stress. One method that the negative impacts of technostress can be mitigated is by effective time management (Boyas & Wind, 2010; Eldelekliolu et al., 2010).

Table 9:Relationship between the technostress of the respondents with their (a) attitude on online learning and (b) time management along online learning

Variable	Technostress	
	Correlation Coefficient (τ_b)	Pvalue
Attitude	-.087**	<0.001

CONCLUSION AND RECOMMENDATION

We can infer from the results that respondents do not have a strong preference for using the internet as a method for teaching and learning; rather, they view it as neutral. Additionally, the respondents experienced moderate levels of technostress, which is characterized by feelings of discomfort and anxiety when using technology in their learning. The negative relationship found between technostress and attitude towards online learning implies that students who have a better attitude and time management skills in online learning are less likely to experience technostress. This finding suggests that promoting positive attitudes towards online learning and providing support to manage technostress could be effective strategies to enhance students' experiences and performances in e-learning.

Overall, the findings suggest that while online learning offers opportunities for convenience and flexibility, it also presents challenges related to technostress, which need to be addressed to maximize the benefits of e-learning.

In view of the foregoing findings and conclusions, it recommended that the university may continue using online learning particularly in Andrews Campus as alternative platform even after the pandemic. This is because the students find it acceptable considering that they have neutral attitude, high time management and less technostress. Furthermore, ICT resources in the campuses must be enhanced to allow the online teaching and learning to be more effective should the university continue it as a teaching modality. Lastly, a similar study should be conducted focusing on other variables in order to have more comprehensive understanding of online learning experiences of the CSU students.

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