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Online teaching and learning in higher education institution in the Northern Philippines

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ABSTRACT

The study investigates the shift to online education in the Philippines due to the COVID-19 pandemic and its impact on the education system. Understanding this transition is vital as it signifies a significant adaptation affecting both faculty members and students. Conducted at Ifugao State University, Ifugao, Philippines, we employed a convergent parallel design using online surveys and interviews to determine the perceptions of 30 faculty members and 30 students and their experiences regarding pandemic driven online teaching-learning modes. Findings revealed varied satisfaction levels, with students emphasizing time management and comfort with online technologies for successful learning. The study offers insights into the diverse experiences within the online teaching-learning landscape during the pandemic. It highlights the need for faculty training, flexible class schedules, alternative dissemination methods, and institutional support to enhance online teaching-learning strategies.

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1. INTRODUCTION

The impact of the COVID-19 pandemic has significantly reshaped global socio-economic, political, and educational dynamics, prompting a fundamental shift in teaching and learning across educational institutions worldwide. Traditional face-to-face methods have rapidly transitioned into online modalities [1]. Furthermore, educational institutions, driven by the exigencies of the pandemic, have embraced diverse digital platforms to facilitate online teaching and learning [2], [3]. Building upon this context, Chang and Fang's investigation [4] showed that higher education institutions have responded by introducing online teaching platforms as alternatives to traditional classroom settings, enabling the continuation of educational processes during the pandemic. However, this transition has not been without challenges. In the Philippines, where digital technology presents accessibility advantages, the limitations stemming from inadequate internet connectivity are obvious. This connectivity gap has resulted in issues such as uneven attendance and participation in virtual classes, underscoring the significant adjustment both teachers and students must make when engaging in online teaching and learning.

The introduction of online teaching and learning represents a paradigm shift from established classroom norms, requiring a careful look at the experiences and perceptions of teachers and students across various Philippine state universities and colleges. Such insights are vital to inform necessary modifications, thus ensuring that the evolving educational landscape aligns with the needs of all stakeholders. With educational institutions poised to remain key players in delivering online education, understanding the dynamics of teachers' and students' perspectives on this modality is pivotal. Moreover, Zhang and Lin [5]

emphasized the centrality of teachers' and students' satisfaction with online pedagogy. This new approach to teaching and learning, though promising, poses challenges for both educators and learners as they navigate this unfamiliar situation. Therefore, this research addresses the imperative of exploring teachers' and students' perceptions of online teaching and learning, compared to traditional classroom-based approaches. In response to the COVID-19 pandemic, educational institutions worldwide witnessed an unprecedented shift toward online learning resources and methodologies, often referred to as the "new normal." This shift prompted new teaching strategies and concepts, resulting in the rapid adoption of online learning technologies. Educational institutions used online platforms to ensure the continuity of teaching and learning processes. The term "online learning" assumes varied definitions across the literature. Park and Kim [6] characterized online learning as an educational process that occurs over the internet, catering to individuals seeking remote access to education. It is a form of distance education enabling students to learn from diverse locations, supplementing traditional educational methods. Dhawan [7] highlighted online learning as a tool that enhances student-centered, innovative, and flexible pedagogies, encompassing both synchronous and asynchronous learning environments facilitated through devices with internet connectivity. Wei and Chou [8] underscored differences in learning styles as a significant factor affecting students' online learning experiences, noting challenges related to engaging with online content and a lack of personal interaction.

Paechter *et al.* [9] outlined both positive and negative aspects of online learning from students' perspectives. Flexibility and convenience emerged as major advantages, while technical issues, delayed feedback, and feelings of isolation were notable challenges. Skordis-Worrall *et al.* [10] emphasized flexibility as a key benefit, allowing students to control their learning environment and access diverse resources and instructors. Conversely, Baran [11] pointed out that few studies explore the barriers teachers face in implementing mobile initiatives or how their attitudes affect mobile learning. Several studies [12], [13] underscored the impact of isolation, time management, and stress on academic performance, with the latter also noting the importance of a strong sense of community. They further emphasize the role of technology challenges and the need for effective course design and implementation, respectively. Creating effective online instruction requires substantial teacher effort and student engagement [14]. Chowkase *et al.* [15] emphasized key qualities of high-quality online learning, including student-centeredness, motivation, reflection, importance of flexibility, communications, and human connections. Hofmann *et al.* [16] stressed the importance of meaningful integration between online and face-to-face components for a successful blended course. Solutions to challenges include prerecording video lectures, providing engaging content, offering personalized attention, and ensuring effective communication [17]. Soliman *et al.* [18] emphasized the connection between online and face-to-face components, facilitating better knowledge construction. Encouraging self-regulation and motivation [19] and leveraging technology's benefits [20] were highlighted as effective strategies.

Ifugao State University (IFSU) has been proactive in responding to the pandemic's educational challenges. IFSU's strategic efforts, including partnerships with the University of the Philippines-Open University and the conduct of webinars and workshops, have underscored its commitment to capacitating faculty members for effective flexible-blended learning. Aligning with Commission on Higher Education (CHED) mandates, IFSU has issued advisories directing the development of learning modules and embracing the learning management system (LMS) to facilitate student engagement and constructive, self-directed learning. This study centers on Ifugao State University-Potia Campus, delving into the perceptions and experiences of both faculty members and students with online teaching and learning during the COVID-19 pandemic. By conducting this study, the researchers aim to contribute to a deeper understanding of the challenges, benefits, and evolving dynamics of online education, offering insights that can guide the institution and its stakeholders in enhancing the teaching-learning process under these unprecedented circumstances. Generally, this study assesses the perceptions and firsthand experiences of both faculty members and students at Ifugao State University within the context of the COVID-19 driven online teaching and learning mode. Specifically, this study will answer the following research questions:

i) What are the perceptions of faculty members and students concerning online teaching and learning during the COVID-19 pandemic?
ii) What are the experiences of faculty members and students in online teaching and learning?

2. RESEARCH METHOD

2.1. Research design

The study employed a research method that combines both quantitative and qualitative approaches, structured within a convergent parallel design. This design involves collecting both quantitative and qualitative data independently, analyzing them separately, and then comparing or merging the results during the interpretation phase. It allows for a more comprehensive exploration of the research objectives, offering a

deeper understanding of the online teaching and learning experiences at Ifugao State University during the COVID-19 pandemic. In the quantitative phase, a descriptive survey was employed. This approach systematically collected essential data and insights related to the study's objectives, aiming to discern the perceptions of both faculty members and students regarding online teaching and learning. The qualitative phase delves into in-depth information on the utilization of online teaching-learning modalities, as articulated by the experiences of faculty members and students. This qualitative aspect enhances our understanding of the practical implications of online teaching and learning. The qualitative responses obtained were analyzed using thematic coding, allowing for the identification of recurring themes and patterns within the data. By employing thematic coding, meaningful insights were extracted from the narratives provided by respondents, shedding light on their experiences.

2.2. Research environment and respondents

The study was conducted at Ifugao State University-Potia Campus, Philippines. For the survey, a total enumeration approach was employed, involving all 60 respondents, consisting of both faculty members and students from the academic year 2022-2023. The participants for the interview sessions, on the other hand, were selected through a convenient sampling method. The interviews were conducted virtually. The participants included permanent faculty members and currently enrolled students at the university who had experience in the online teaching and learning modality. Their voluntary participation in the interview sessions provided valuable first-hand experiences, contributing to the optimal results of the study.

2.3. Data gathering tools

In this research study, a crafted questionnaire developed by the researchers were employed as the primary data collection instrument. The questionnaire underwent a process of validation and reliability testing to ensure its effectiveness in accurately capturing the targeted information. Through a systematic validation process, the questionnaire was reviewed by experts in the field to assess its content validity, ensuring that it comprehensively addressed the research objectives. Furthermore, the questionnaire's reliability was assessed through a pilot test involving a subset of respondents. This phase aimed to identify any potential ambiguities or issues that could impact respondents' understanding of the questions. The gathered data from the pilot test were analyzed for internal consistency using appropriate statistical methods, affirming the questionnaire's reliability. The questionnaire was structured into two parts: one tailored for faculty members and another for students. The first part focused on the perception of faculty members and students regarding their engagement with online teaching and learning. The second part delved into the experiences of online teaching and learning. The validity of the second part was further established through interviews that explored participants' experiences with online teaching and learning. In this study, the four-point Likert scale was used, as shown in Table 1.

Table 1. Four-point Likert scale

Scale	Range	Verbal interpretation
4	3.26-4.00	Strongly agree
3	2.51-3.25	Agree
2	1.76-2.50	Disagree
1	1.00-1.75	Strongly disagree

2.4. Data gathering procedures

Prior to the conduct of the study, the researchers initiated the process by formally addressing a letter of request to the Campus Executive Director of the study site. This initial step sought official permission to proceed with the research within the campus premises. Additionally, a similar letter of request was submitted to the Registrar's Office to obtain the essential data regarding the total number of faculty members and students enrolled for the academic year 2022-2023. Upon the successful acquisition of necessary approvals, the researchers devised an efficient online survey platform using Google Forms to administer the survey questionnaire to the targeted respondents. Given the prevailing pandemic circumstances and associated restrictions, the researchers strategically employed various digital channels, such as Facebook, Messenger, email, Google Meet, and Zoom to establish contact with the respondents for the interview part. Before engaging with the participants, information regarding the study's objectives was provided to them.

Furthermore, participants were assured of the confidentiality of their identity, and the results were explicitly designated for academic purposes. It is noteworthy that the utmost care was taken to safeguard the well-being and mental state of the participants throughout the study. The entire research process was conducted without any harm or abuse, either physical or psychological, to any of the respondents. Thus, a

systematic approach was undertaken, including official correspondence, online survey deployment, and thoughtful participant engagement strategies, to ensure the ethical and effective execution of this study amidst the challenges posed by the ongoing pandemic situation.

2.5. Data analysis

The data collected for this study underwent a systematic process that involved classification, tallying, tabulation, and utilization of statistical tools. To determine the perceptions of both faculty members and students in the online teaching and learning mode, the weighted mean was employed, which is a quantitative method. Furthermore, a thematic analysis approach was utilized to examine the qualitative data related to the experiences of participants. This involved categorizing the data into themes, allowing for a comprehensive comparison of different perspectives and experiences.

3. RESULTS AND DISCUSSION

3.1. Perception of respondents in online teaching and learning

In this study, we determined the perceptions of both faculty members and students regarding the online teaching and learning mode. Table 2 summarizes the perceptions and experiences of both groups across various indicators. The table shows the perceptions of faculty and students regarding online teaching and learning. The highest mean rating among faculty members is 3.20 for two indicators: "Online classes have increased my technological literacy" and "The school/my teacher sets guidelines for effective communication and interaction during our online classes," both described as "Agree." This shows that faculty members acknowledge the role of online classes in enhancing their technological skills and appreciate the guidelines set for effective communication. This also implies that online teaching has positively affected faculty's technological proficiency and that clear communication guidelines are essential for effective online education. However, the lowest mean rating of 2.47 for the indicator "I get more engaged in our online learning because it is fun and interactive," described as "Disagree." This indicates that faculty members do not find online learning particularly engaging or interactive. This implies that there may be a need for more interactive and engaging teaching methods to increase faculty engagement in online classes.

On the other hand, the highest mean rating among students is 3.67 for two indicators: "The school/my teacher sets guidelines for effective communication and interaction during our online classes" and "I enjoy students to teacher intimacy in our online learning," both means as "Strongly agree." This indicates that students greatly value the guidelines for effective communication and the sense of intimacy they feel with their teachers in online learning. This implies that these factors significantly enhance the student experience in online teaching and learning. While the lowest mean rating of 2.87 for the indicator "I get more engaged in our online learning because it is fun and interactive," described as "Agree." This shows that while students do find online learning somewhat engaging, there is still room for improvement to make it more fun and interactive. This implies that enhancing the interactivity and enjoyment of online classes could further increase student engagement.

Table 2. Perception of respondents in online teaching and learning

Indicators	Faculty members	Qualitative description	Students	Qualitative description
1. Online class helps me to be independent and perform well.	2.80	Agree	3.53	Strongly agree
2. Online classes have increased my technological literacy.	3.20	Agree	3.60	Strongly agree
3. Online classes help me to gain more knowledge and improve my other skills.	2.93	Agree	3.53	Strongly agree
4. I received enough support and resources from my teacher/ institution.	2.80	Agree	3.20	Agree
5. My students/teacher encourages discussion during our online classes.	2.87	Agree	3.47	Strongly agree
6. The school/my teacher sets guidelines for effective communication and interaction during our online classes.	3.20	Agree	3.67	Strongly agree
7. I feel more comfortable to teach/participate in our online class discussions.	2.67	Agree	3.13	Agree
8. I enjoy students to teacher intimacy in our online learning.	2.73	Agree	3.67	Strongly agree
9. There are student's collaborations in our online learning.	2.73	Agree	3.47	Strongly agree
10. I get more engaged in our online learning because it is fun and interactive.	2.47	Disagree	2.87	Agree
11. There is instant feedback from my teacher/student in our online learning.	2.73	Agree	3.00	Agree
12. I often get better performance in online class.	3.07	Agree	3.40	Strongly agree
Overall	2.85	Agree	3.37	Strongly agree

Thus, the overall weighted mean for faculty is 2.85, which described as "Agree." This shows that faculty members generally have a positive perception of online teaching but see room for improvement, particularly in making online learning more engaging. While the overall weighted mean for students is 3.37, categorized as "Strongly agree." This indicates that students have a very positive perception of online learning, particularly valuing the increased technological literacy, effective communication guidelines, and the intimacy of student-teacher interactions.

The perceptions of online teaching and learning among faculty and students need for a more engaging and interactive methods. Students have shown a positive attitude towards online learning, driven by the perceived usefulness of ICTs and the application of digital technologies [21]–[23]. However, faculty members have expressed concerns about their own digital competence, indicating a need for ongoing professional development [24]. Effective communication guidelines and a sense of connection with teachers have been identified as key factors in enhancing the online learning experience for students [21]. The result of the perceptions of both faculty members and students on the challenges and concerns regarding the online teaching and learning mode can be seen in Table 3.

Table 3. Challenges and concerns in online teaching and learning

Indicators	Faculty members	Qualitative description	Students	Qualitative description
1. I feel lack of motivation from my family to take/teach online classes.	2.27	Disagree	2.67	Strongly agree
2. I find it hard to stick to a study schedule of the online course.	2.67	Agree	3.40	Strongly agree
3. I feel lazy & disinterested during online classes.	2.67	Agree	3.20	Agree
4. I do not follow the rules given for online activities or exams.	2.13	Disagree	2.80	Agree
5. It is difficult for me to clarify doubts in our online classes.	2.60	Agree	3.20	Agree
6. I lose interest and I easily get bored in our online sessions.	2.80	Agree	3.47	Strongly agree
7. I don't usually get answers to my questions during our online learning.	2.40	Disagree	3.07	Agree
8. I lack understanding of the online subject's contents.	2.53	Agree	3.67	Strongly agree
9. I always experience network issue due to our location.	3.40	Disagree	3.60	Strongly agree
10. I lack ICT knowledge which results to poor performance in our online course.	2.33	Disagree	3.40	Strongly agree
11. I am distracted from my family members while having online sessions.	2.67	Disagree	3.40	Strongly agree
12. I lose concentration in our online class because of house works.	2.67	Agree	3.13	Agree
13. I need more time to effectively accomplish task in online learning.	3.20	Strongly agree	3.40	Strongly agree
Overall	2.74	Agree	3.32	Strongly agree

Table 3 presents the challenges and concerns faced by faculty and students in the context of online teaching and learning. The faculty highest mean rating is 3.20 for the indicator "I need more time to effectively accomplish tasks in online learning," which is described as "Strongly agree." This suggests that faculty members feel they require additional time to manage and complete tasks effectively in an online environment. This also implies that online teaching demands more preparation and adaptation time compared to traditional classroom settings. While the lowest mean rating is 2.13 for the indicator "I do not follow the rules given for online activities or exams," which described as "Disagree." This indicates that faculty members generally adhere to the rules set for online activities and exams. The implies that despite the challenges, faculty members are committed to maintaining academic integrity in the online teaching process.

On the other hand, the highest mean rating among students is 3.67 for the indicator "I lack understanding of the online subject's contents," which is described as "Strongly agree." This indicates a significant concern among students regarding their comprehension of the course material in an online format. This implies that there might be a need for improved instructional strategies or additional support to enhance students' understanding of the subject matter. While the lowest mean rating is 2.67 for the indicator "I feel lack of motivation from my family to take/teach online classes," described as "Strongly agree." This suggests that students do not generally feel unsupported by their families in terms of motivation for online classes. The implies that family support is relatively strong, which is a positive factor in the online learning environment.

Furthermore, the overall weighted mean for faculty is 2.74, described as "Agree." This shows that faculty members face moderate challenges and concerns in online teaching but manage to cope with them to some extent. Likewise, the overall weighted mean for students is 3.32, described as "Strongly agree." This indicates that students face more significant challenges and concerns compared to faculty members, especially in terms of understanding course content and dealing with network issues. The findings imply that while both faculty and students face challenges in online education, the intensity and nature of these challenges differ. Faculty members need more time to adapt and prepare for online teaching, whereas

students struggle more with comprehension and technical issues. Addressing these specific areas could improve the overall online learning experience for both groups.

In corroboration, study by Richards and Power [25] indicated that the transition to online teaching during the COVID-19 pandemic has presented challenges for both faculty and students. Faculty members have struggled with the need for more time to adapt and prepare for online teaching, as well as the requirement for technical skills and knowledge of online teaching modalities. Addressing these needs through comprehensive training programs and support networks could significantly improve the online learning experience for both faculty and students. On the other hand, students have faced difficulties with comprehension and technical issues. Faculty members can play a crucial role in addressing these challenges by enhancing their online competence and affective engagement skills, which can positively impact students' perceptions of the quality of their online learning experience [26]. Hence, the shift to online education during the pandemic highlights the need for faculty flexibility, psychological support, and strategies to address distractions, emphasizing the importance of ongoing professional development and support [27]–[30].

3.2. Experiences of faculty members and students in online teaching-learning

Based on the data, the researchers identified five themes with regards to Ifugao State University online teaching and learning experiences during the COVID-19 pandemic. The following were the themes identified: i) learning/teaching development; ii) online media platform/internet access; iii) technical/software knowledge; iv) learning/teaching environment; and v) time management.

3.2.1. Learning/teaching development

Faculty members and students treasured development for it improved performance. Moreover, acquiring development for specific fields benefitted the participants to prepare themselves for various responsibilities especially in the light of the pandemic. Some of the participants answered that online learning pushed them to become independent and self-efficient. Faculty number 4 indicated that:

> "*Online learning encourages independent learning. Since you need to be responsible enough in accomplishing and understanding all tasks given by the teacher*."

Also, faculty number 30 explained:

> "*Online learning initiates students to do their own research about the topic since the information provided are not enough.*"

Further, the participants acquired countless skills while engaging in online learning and teaching during the pandemic. Most of the participants expressed that online learning opened numerous opportunities to improve oneself particularly in critical thinking, time management and communication. Faculty number 12 viewed online learning as a great way to broadened thinking ability. Also, she asserted that it helped to easily understand lesson by getting more learning resources online. This was supported by faculty number 15:

> "*I develop my ability and refined critical thinking skills and improved virtual communication and collaboration.*"

Similarly, student number 25 disclosed:

> "*As a student my learnings and experiences during the online learning were that time management is really important. And using and engaging the used of ICT in the teaching learning process catches the attention of the pupils and motivate as well.*"

In addition, student number 20 uttered:

> "*I was able to manage my time during online learning actually saves more money than the face-to-face classes and I also learned to be more attentive during discussion in order to not miss announcements and instruction.*"

Despite, the participants classified the negative aspects of online teaching and learning concerning to learning/teaching development. Participants noted that poor internet connection, lack of interaction and overloaded activities obstructed students to understand the lesson. Student number 12 stated:

"*Sometimes I can't focus due to many activities from different teachers, and I can't do them at the same time.*"

Additionally, student number 10 said:

"*During the pandemic, there are lots of hands-on activity that's why sometimes we feel stressed.*"

Student numbers 1 and 13 agreed that there was less learning due to low internet connection that made the sound choppy and not understandable. Considering all the facts, students cannot understand the lesson due to poor internet connection while teachers cannot extend and clarify discussions due to limited interaction.

This was supported by the study of Gupta *et al.* [31] which stated that many times students trekked for a few kilometers in certain areas to get a proper signal so that they could attend classes or submit their assignments online. With the government trying all options for education from online, to television, classes through community radio, online education has not got the desired response due to poor internet connectivity in the remote areas of the region. In considering these insights from both faculty and students, the implications for future educational strategies become apparent, calling for a balanced approach that harnesses the positive aspects of development while addressing challenges effectively.

3.2.2. Online media platform/internet access

All around the world, educational institutions were looking toward online learning platforms to continue with the process of educating students. Faculty members and students accessed everything right at their fingertips with the help of online media platforms/internet. The result exhibited that the ultimate negative aspect of internet was its poor connection. In its entirety, poor internet connection served as a barrier to access multiple learning resources. However, the positive aspects of online learning regarding online media platforms/internet access garnered great responses. Participants enumerated that online media platforms/internet access helped to gather different reliable information, opened collaboration and easily accessible anytime and anywhere. Faculty number 14 proved that the statement was precise:

"*With the use of the internet, learning continues, and we are not stuck in learning. Having the Internet is a big help because it allows students and teachers to communicate.*"

As well as student number 10 conveyed:

"*During the pandemic, I learn a lot from using the internet in my study most especially in making assignments, projects and other academic tasks.*"

Besides, based on the notion of faculty number 4, online media platforms/internet access was clearly beneficial for teachers and students:

"*Open discussion between the teacher and the students. The different features of each media platform were useful and being utilize during meeting. Online media platforms such as Google Meet, Zoom, Messenger and Facebook were accessible and flexible.*"

According to Lozano *et al.* [32], an integrated set of interactive online services constitutes an online learning platform. This platform aims to furnish trainers, learners, and other stakeholders in education with information, tools, and resources to support and enhance the delivery and management of education. In the present era, the Internet has brought about a revolution in various aspects of our lives, including work, recreation, communication, administration, and, notably, learning. The digital landscape has effectively removed nearly all constraints on education, liberating us from the confines of physical classrooms or libraries. With access to a computer, tablet, or smartphone, individuals can effortlessly access an abundance of information beyond their imagination. The Internet not only has expanded research possibilities limitlessly but has also facilitated the creation of online learning platforms, allowing for comprehensive teaching and learning experiences regardless of geographical location. Undoubtedly, the online learning platform has profoundly transformed our educational experiences for the better.

3.2.3. Technical/software knowledge

Technical/Software knowledge was important for a variety of reasons. It helped teachers and students to work more efficiently, achieved competitive advantage and increased productivity. Based on the

responses, the common answer indicated was the unsolved technical issues due to lack of technological skills and knowledge. Unfortunately, as stated by faculty number 3, gaining technical knowledge created huge and realistic negative aspect like being expert in cheating and hacking. On the other hand, the positive aspects were improved computer literacy, easily utilized technology, and explored beyond unknown online platforms. Faculty number 6 stated from the interview:

> "*Online learning helps to improve my knowledge on how to use different technologies to cater our online class. Also, the virtual setting of education thought me to be cunning. I can say that I didn't feel much pressure in learning the different software needed to conduct a report.*"

On top of that, faculty number 18 highlighted the importance of technical knowledge:

> "*Having technical knowledge helps a student in navigating technology easily when having online classes. Besides, it helps us on how to navigate our computer or phone. We explore some features we haven't encountered before. Also, it helps me to go beyond my software knowledge and acquired new skill by exploring the advance features of technologies.*"

A range of studies have highlighted the importance of technological knowledge for faculty and students. Technology teachers' understanding of this knowledge varied, potentially impacting curriculum interpretation and student assessment [33]. Rodrigues *et al.* [34] emphasized the need for balanced technological skills development in higher education, which is crucial for students' personal, social, and professional future. Kafyulilo *et al.* [35] identified school management encouragement as a critical factor in teachers' continuation of technology use, despite challenges. Backfisch *et al.* [36] further underscored the role of teachers' motivational beliefs in effectively applying technology in instruction. These findings collectively emphasize the need for a comprehensive understanding of technological knowledge and the importance of support and motivation in its application.

3.2.4. Learning/teaching environment

A learning environment characterized by active engagement enhances students' attention and concentration, fosters meaningful learning encounters, boosts overall student performance, and stimulates the application of advanced critical thinking skills. Creating a learning atmosphere that motivates students to learn within the confines of a secure classroom is the duty of the teacher. Nevertheless, in an online context, respondents reported experiencing a sense of freedom and comfort as they could select a secure location for their learning and teaching activities. The study found out that the pandemic lead faculty members and students to learn at home where there was no need for human interaction to prevent the spreading of the virus. Student number 4 mentioned:

> "*I have the freedom to choose the place where I'm comfortable to learn. Fortunately, I can still manage to learn wherever I am.*"

The statement was agreed by student number 6:

> "*I feel safe being at home while studying, it's just dangerous outside because of the threat brought by the COVID-19 virus.*"

On the contrary, there were negative aspects about learning and teaching environment gathered from the survey. Respondents admitted that their home was not conducive for learning due to the barriers and disturbances. Noises from the surrounding enabled learners to focus on the lesson and digest the information the teachers provided. Faculty number 6 stated:

> "*One of the disadvantages of online classes is that the noises you hear on your background are unstoppable. You just can't do anything about it.*"

This was supported by the statement of student number 19:

> "*There are some barriers in the learning environment that make it hard to concentrate, such as noise, chores that need to be done while studying online, and a poorly ventilated space, as I experience.*"

Learners experienced the unconducive learning environment during the pandemic as disclosed by student number 12:

> "*My learning environment is not conducive for learning for there were many distractions. Sometimes I cannot concentrate because my learning environment was filled with disturbances that makes me feel uncomfortable.*"

Research by Wang [30] revealed that students had trouble grasping concepts at home during online classes because they have more distractions that took their focus away from their education. Students became distracted a lot easier when not in a school environment in front of other students and teachers, which caused them to not be able to grasp concepts being taught as well as if they were in-person. Students do not innately understand (or appreciate) all educational apps.

3.2.5. Time management

Time management referred to making the best use of time as time was always limited. It was to manage time effectively so that the right time was allocated to the right activity. Effective time management allowed individuals to assign specific time slots to activities as per their importance. Along with this, respondents learned to save and balance time in doing household chores and school activities in every class.

The research showed that faculty members and students learned the importance of time management. Faculty numbers 17, 15 and 18 answered that the time during online class was flexible. Majority of the respondents viewed online class as a way to appreciate and master time management. Student number 14 realized during the interview:

> "*As a student and a teacher soon, time management is more important, we can do all things we desired to do if we manage our time wisely.*"

In the survey, student number 8 shared an insight:

> "*There was time allotted for each task. I learn that managing time wisely is a must for you to accomplish something.*"

Online learning brought teachers and students a lesson that changes the way they perceived time. As what faculty number 30 discerned:

> "*I learned to manage my time very-well during the online learning to accomplish all requirements on time. Also, it made us time-conscious which I thought a good experience since we can finish activities (for example) on or before the time. Lastly, I learn to adjust my time in doing working student and doing my activities in school.*"

Despite of the above-mentioned positive aspects there were always drawbacks. Class schedule and time allocation were the major problems that the respondents identified. Faculty number 12 exposed:

> "*Time management isn't really exercise since most of us only do our homework if the deadline is near. Further, some time schedule was not followed because of unexpected situation like unstable connection and others.*"

The results of this study find support in the research conducted by Martin *et al.* [37], who identified that the lowest competency in time management was "staying on task and avoiding distractions while studying." While time management has always presented challenges, even in traditional on-campus courses, it becomes more formidable in the online environment. In online courses, students are required to be self-disciplined, manage their schedules, and stay focused on tasks to actively participate. This challenge may stem from various factors, including the student-centered nature of online courses, where class meetings do not have a set time. Instead, students must navigate their time to accommodate various priorities, such as work and family.

4. CONCLUSION

In conclusion, this study reveals that both faculty and students at Ifugao State University generally perceive online teaching and learning positively, recognizing its benefits in fostering independence, technological literacy, and knowledge acquisition. However, challenges such as poor internet connectivity

and home disturbances, as well as disparities in views on the interactive nature of online learning, indicate areas for improvement. These findings revealed the need for targeted support to enhance engagement, address technical issues, and improve technology infrastructure. To address these challenges, the study recommends enhanced faculty development initiatives, flexible learning dynamics, resilient information dissemination strategies, and comprehensive institutional support for virtual instruction. These measures aim to optimize the quality and effectiveness of online teaching and learning in the post-pandemic era and provide a foundation for further exploration into faculty preparedness and online teaching methodologies.

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