## Students' Perspective on the New Normal Virtual Learning

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Abstract-COVID-19 has brought a drastic change in the educational system as many universities in the world were obliged to move from face-to-face interaction to online learning as a preventive measure against the spread of the disease infection. This study aimed to explore the thoughts and opinions of the Bachelor of Science in Information Technology students (BSIT) on the new normal virtual learning using NVivo software to facilitate the process of defining and analyzing the themes and to determine the common difficulties experienced by the students in the new learning set up. The study used a qualitative design. 150 BSIT students served as the respondents. The data gathered were processed in the NVivo software to get important verbalizations and describe what was common among the students' opinions. The derived meaning or statements were formulated and categorized into codes and themes. There were five themes derived such as learning is hard due to limited or poor internet connectivity; in this time of the pandemic, gadgets are the teachers; money is most needed to buy prepaid load for phones; learning is harder because of lack of tools like a laptop, and; problems in the module requirements are high. With the Students' Perspective on New Normal Virtual Learning, with its pros and cons, online classes must not prevent students from getting the education they need and deserve even amid the pandemic. Hence, it is advised that virtual learning should be planned, implemented, and evaluated to lessen the problems thus, achieve better learning objectives for each course.

*Index Terms*—COVID 19 pandemic, Nvivo software, student's opinions, virtual learning.

#### I. INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) proclaimed the novel coronavirus (COVID-19) outbreak a global pandemic [1]. The massive proliferation of the coronavirus necessitates a social distancing policy or physical distancing to slow down the spread of the coronavirus in the community [2]. The suspension and other measures imposed in response to the Coronavirus (COVID-19) Pandemic have a substantial impact on all industries [3]. It has shown that change is unavoidable. It has worked as a catalyst for educational institutions to expand and adopt measures that utilize different platforms with technologies [4]. The planned learning transformation process comprises the transformation of distant learning technologies and media, learning designs, learning models, and learning assessments to ensure that learning stays

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effective and efficient [5]. In light of the pandemic, the educational system has made online classes at the college and university level mandatory [6]. Online learning is a type of distant learning in which information and communication are accomplished with the use of computers connected to the internet [7]. Students and teachers can use this method to submit and access topic matter from a variety of sources, increasing interactivity and learning efficiency [8].

In fact, during this pandemic, e-learning technologies are becoming increasingly important. Learning providers can use e-learning systems to help them manage, plan, deliver, and track the learning and teaching process. It also intends to assist instructors, schools, and universities in facilitating student learning during university and school closing periods [9]. Video conferencing and e-learning platforms are examples of technology solutions that can be used to offer lectures or tutorials while students remain at a distance and maintain social distance. Teachers and students can log in at convenient and predetermined times for discussions using hand-held devices and laptops, or even in real-time utilizing teleconferencing apps [10]. Online learning platforms may be advantageous to them because online activities using this platform was simple and challenged them to maintain a balance of motivation and interest in to complete the online learning process. They were at ease using technology to communicate and connect with classmates and teachers. They may also be self-disciplined and able to manage their study time. As a result, an online learning platform is seen as a valuable tool for supporting online learning environments [11].

However, incorporating new technology into education does not imply that it will improve teacher-student interaction. New technology does provide more options for both teachers and students, but only when it is used correctly [12]. That is why many university administrators, professors, and students may find it difficult to adapt to the so-called "new normal" ways of learning in this tough situation [13].

In the Philippines, before the pandemic most universities learning management systems (LMS) were limited to basic electronic communications, notification, and the sending or uploading of standard school materials. Only a few universities have full pledge LMS and most of them are related to information technology programs [14]. When the pandemic hit the country and the education institutions needed to keep operating, most of the universities in the country turned to online learning which utilized learning management systems like Google Classroom to record and upload their courses for students' access [15].

The Coronavirus Disease 2019 (COVID-19) pandemic has radically altered the Philippines' higher education system, with a marked shift in online instruction as a means of limiting further virus transmission. Many teachers and students were concerned about the sudden shift to online

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learning because a huge portion of the population had intermittent internet access and limited electronic gadgets [16]. To address this problem, the Commission on Higher Education (CHED) launched the Smart Campus project to support online learning in the Philippines, providing funding to higher education institutions to improve their network infrastructure and internet connection.

With the need to shift from face-to-face to online learning, students became reluctant and uncomfortable. At the same time, there were several reactions shown by the students concerning these changes. With this, the researchers collect the common thoughts and opinions of the Bachelor of Science in Information Technology (BSIT) students in to determine the different challenges that the students encountered during this new normal learning. The results can assist institutions in developing strategies to improve the delivery of online learning courses.

This study aims to explore the thoughts and opinions of the BSIT students on the new normal virtual learning using NVivo software to facilitate the process of defining and analyzing the themes and to determine the common difficulties experienced by the students in the new learning setup.

## II. LITERATURE REVIEW

This section reviews different reviews related to the new normal learning this time of the global pandemic.

The Coronavirus pandemic has greatly impacted higher education by shifting norms and conventional practices in the educational setting. This unique situation has thrown pupils' learning and the teaching process into disarray [17]. Many educational institutions have begun to migrate to online teaching during the COVID-19 pandemic to maintain continuous and effective education [18].

Online learning is learning experiences in synchronous or asynchronous situations using various devices with internet connectivity (e.g., mobile phones, computers, etc.). Students can learn and communicate with teachers and other students from anywhere (independence) in these contexts [19]. During the institution's closure period, many platforms such as Google Classroom, Blackboard, Moodle, and Edmodo, as well as meeting programs such as Google Meet and Free Conference Call, as well as their video conferencing applications, were used to replace the face-to-face traditional education system [20]. Because e-learning is student-centered, it is more flexible, and it may improve interaction with students by providing asynchronous and synchronous tools such as e-mail, forums, chats, and videoconferences. It has numerous advantages for students. technologies Furthermore, internet facilitate the simultaneous distribution of content to a large number of users; E-learning platforms provide many benefits to learners, including control over the content, control over the time spent learning, and the ability to adapt the process to the learner's needs and learning objectives. This may help to improve communication with students, and despite some inherent obstacles brought on by the current crisis, E-learning may help students learn more effectively [21].

Under the current circumstances, it is critical to the

transition to a remote learning platform via the online approach. In a country like India, where learners are diverse and infrastructure issues abound, the benefits of online learning have long been debated [22]. This digital revolution has the potential to bring together the educational goals and interests of students who have become digital addicts. In essence, COVID-19 has given us the option to adopt online learning since educational systems must keep up with the rapid rise of new technologies, making online, blended, and remote learning a must at the tertiary level, not around the world [23].

Teachers faced challenges during online learning in a pandemic era in Bangladesh due to a lack of technical infrastructure, high internet costs, and family financial hardship [24]. Some of the issues that arise during the adoption of online learning include a limited internet allotment and inexperienced teaching staff and students in implementing it, as well as an inconsistent internet network [25].

According to the results of data analysis acquired from student questionnaires, the online learning method used during the COVID-19 epidemic was both effective and inefficient. Effectively implemented due to the circumstances that need online study, but inefficient due to the higher expenditures involved as compared to offline lectures [26].

Even in the Philippines, struggles for online learning are evident as the Commission on Higher Education (CHED) banned online instruction after three days of the national memorandum for alternate delivery, citing an increase in the number of students, including teachers, who objected to the online style of learning for various reasons. The truth is that many higher education institutions in the Philippines, both private and public, are not equipped to implement this online system [15].

According to the study, limitations in presenting ideas, particularly when courses involve many mathematical equations and programming languages, are among the obstacles experienced by lecturers when implementing online learning. Furthermore, the teachers are not good at video editing and animation especially in utilizing numerous animation software programs. They can only use PowerPoint and text to present their material. Overall, instructors must be skilled in presentation software, text processing, evaluation, and video conferencing to use online learning effectively [27].

This may cause some students to become resistant, affecting their remote instruction engagement activities and academic progress. Students' lack of formal training and experience with e-learning platforms, as well as their unpreparedness, may harm on their behavior outcomes, such as learning engagement, satisfaction, participation, motivation, online work skills proficiency, self-directed learning, and efficacy in the use of e-learning devices, as well as their academic performance [28].

With the various types of research and literature published, it has been noticed that switching to online learning during the pandemic to keep the school system running has numerous advantages and disadvantages experienced by the students and teachers.

### III. METHODOLOGY

## A. Research Design

This study used the qualitative design of research by asking the BSIT students to input their thoughts and opinions on this new normal virtual learning in a google form. An online survey was used because of its openness and flexibility in addressing the study topics and it is currently the safest approach acceptable during the pandemic [29].

## B. Locale of the Study

The study was conducted in Abra State Institute of Sciences and Technology, Lagangilang, Abra, Philippines during the second semester of the school year 2020 - 2021. The school was chosen as the locale of the study to help the institution craft strategies in the implementation of new normal virtual learning since the institution opted for online learning to continue its operations.

### C. Participants of the Study

The 150 students enrolled in the course Bachelor of Science in Information Technology in the second semester of the school year 2020-2021 served as the respondents of the study. They were chosen because most of their classes are conducted online during this pandemic. They used Messenger as their communication tool for announcements and used Google Classroom as their learning management system. They also used Google Meet and Zoom to conduct their classes online. Aside from that, the teachers created video tutorials and posted them on Google Classroom so that students could access them to facilitate the subjects with laboratories. Additionally, the download of simulation software that allow for the practice of the skills taught in the video tutorial was mandated for the students. The following simulation software used are the following: qpython and colaboratory for Python programming; Awebserver app is utilized in the PHP and MySQL Server courses; Java N IDE and J studio is utilized in the Java programming courses; and, finally, Acode is utilized in the web application courses.

## D. Instrumentation

The researchers conducted a survey using a google form to convey the thoughts and opinions of the students. The survey questionnaire contains a question that states, "Tell me your thoughts on this new normal virtual learning." The students inputted their answers in the google form. The use of essays in qualitative research to gather data is not new and it's been used by other researchers. Essays are less rigorous than traditional questionnaires and can generate a considerable and diverse range of information from responders. Furthermore, essays allow students to expand on their comments and relate them to their personal experiences [14].

After collecting all the students' sentiments, the researchers compiled them and used the NVIVO Software to process the data. NVIVO is a software program used for qualitative research to analyze interview transcripts, open-ended survey responses, spreadsheets, PDFs and image files, web content, audio, and video.

### E. Data Gathering Procedure

The essay was given as a type of assignment in a survey

questionnaire via Google Form to the students. The researchers have only the authority to access their answers to ensure the anonymity of their responses. Students can express their opinions and discuss their feelings about the virtual learning situation. After collecting all the sentiments of the students, the researchers compiled them and used the NVIVO Software to process the data.

## F. Data Analysis

The researchers used qualitative research with the aid of NVivo as the Computer Assisted Qualitative Data Analysis Software (CAQDAS). It is to lessen the burden of researchers in the analysis of data since qualitative research is usually time-consuming and labor-intensive from preparation to the analysis of qualitative data. The use of qualitative data analysis software to aid the thematic content analysis speeds up the process; enhances the rigor; provides more flexible data analysis from different perspectives; facilitates the exchange and reproduction of data and allows the researcher to reflect in greater depth by reducing the operational activities [30]. The data gathered were processed to get important verbalizations and describes what was common among the student' opinions. The derived meaning or statements were conveyed and categorized into codes and themes. Furthermore, immersive methods are not used in the study because the respondents were not exposed to augmented reality or virtual reality during the online learning.



Fig. 1. Sample Patterns Produced by NVivo.

### IV. FINDING AND DISCUSSION

The study used the NVivo software to get patterns in the thoughts and opinions of the BSIT students on the new normal virtual learning. The software used the word frequency query using the following groupings or criteria: exact matches with stemmed words, synonyms, specializations, and with generalizations to see which words the students are using most often. Fig. 1 is a sample pattern produced by the software and served as the basis for the researchers to create common themes.

The word cloud produced in Fig. 2 could be stated as "Students' virtual learning in the new normal is hard because of poor internet connection and lack of gadgets such as laptops, computers, and phones." The resulting world cloud gives an early insight into emerging themes and helps to ease the analysis.



Fig. 2. Word cloud produced by NVivo.

## A. Five Themes Emerged after Running the Thoughts and Opinions of the Students in the NVivo Software

The different themes enumerated below were derived based on the thoughts and opinions of the BSIT students. These themes were produced with the aid of the NVIVO software as a tool to get important verbalizations and describe what was common among the students' opinions.

## 1) Learning is hard due to limited or poor internet connectivity

The internet is already a vital element of education. It will continue to increase throughout this time of pandemic where most universities opted for online learning.

The BSIT students expressed their thoughts and opinions regarding their virtual class. Most of their views focused on internet connectivity in their respective places. Here are some of their responses: "With this new way of learning, we badly need the internet. I assure you that this makes us uneasy because we have a poor connection to the internet in our area." Other respondents said, "The new normal virtual learning is not easy because many of us are not easy to catch up to the new strategy of learning especially in the upland area and places that poor in connection on the internet."

The result indicates that due to poor internet connectivity, most of the students could not attend their virtual classes. Therefore, online learning cannot produce effective learning since a good internet connection for online learning requires a minimum speed of 5 Mbps, but most of the students experienced issues with the speed because certain areas have intermittent or no signal at all.

This result supports the study of Gunawan and Suranti *et al.* [31] that the most prevalent hindrance during the implementation of online learning is the limited internet access by teachers and students because learning takes place in all categories with an average of two online meetings each week according to the credits of each lecture. The result also corroborated the findings of Ogbonnaya and Awoniyi *et al.* [32] that the majority of respondents had trouble learning online because of poor internet connectivity. The difficulties with internet connectivity included everything from a poor internet network connection to a total internet network failure.

## 2) In this time of the pandemic, gadgets are the teachers

In a blog posted by Viney Kirpal, student feedback reveals they have missed face-to-face interaction. They say it is difficult to clarify doubts because most of the time, their gadgets become their teachers and all of their lessons are uploaded and downloaded on it. Though teachers have taken it upon themselves to establish a connection with their students, a slow internet connection limits it.

This is in connection with the responses gathered from the respondents of this study. One said, "I do not like this setup because there is no what we call student-teacher interaction. We students cannot clarify things needed because everything is on our gadgets. Our environment is also different. We need to adjust. We cannot focus on our study because a classroom is different from any other room".

Others said, "This new normal set of virtual learning is hard for me to catch on the lessons and express our thoughts because of the limited transaction through technology. I mean, it is hard to follow and connect with my classmates"

The result implies that though gadgets and technology have been helpful tools for learning during this time, it is still undeniable that the presence of a teacher to strictly facilitate learning is needed. Being unable to see, hear, or directly connect with their students as they would in a face-to-face setting makes the situation for online teachers seem challenging at first. Online instructors cannot monitor their students, read their facial expressions, look for signs of inattention and then respond quickly to correct any problems that may have arisen [33].

This result validates that online learning requires students to speak through technological intermediaries, and nonverbal communication is lost in interactions between individuals. Students become bored due to the lack of these interactions, as well as restrictions on physical meetings [34].

## 3) Learning is harder because of a lack of tools like laptop

Gadgets play a vital role in the educational field it enables students to improve their skills and knowledge. It stores teaching and learning data systems that can easily be accessed by anyone who wants it. However, student-teacher interaction has decreased because learning during this time relies on the availability of gadgets to be used by the students, especially in the BSIT course.

Some students are unable to cope with the lesson because of a few reasons, one being the lack of gadgets to use and the incapability of buying one. It limits their access to the learning interactions needed in their subject.

One of the respondents said that "I cannot cope with the lessons well because I do not have a laptop." One also said, "I

only borrow a cellphone from my sibling so, I only have limited access to our lectures and activities."

This theme shows that online class is not easy for every student because they must have things to use like a laptop, cellphone, computer, and internet connectivity.

Because of the poor communication and engagement between teachers and students, the online learning system was less effective. Some pupils lacked technological infrastructure, and internet data, were less motivated, and had less parental support [2].

Another issue the university is dealing with is the possibility of students being left behind due to a lack of access to technology. It's also a good idea to form a technical support group. By lending computers, tablets, and mobile Wi-Fi, educational institutions can assist online students [35].

# 4) Money is most needed to buy prepaid load for cellphones

Gaps in education have existed in the past, and they are even more so now, amid the pandemic. Education has been a stumbling block for both those who can afford it and those who can't.

To satisfy the demands of students for online learning, the university has implemented several measures. Money to be used to buy prepaid phone load, on the other hand, is still an because issue internet promos of different telecommunications are limited. Students must spend at least 150 pesos to subscribe to a promo that has only 6 GB of data, which is insufficient for all of their subjects' online meetings. As a result, if students are required to attend all of their classes online, they may have to spend more than 500 pesos per week, which is not affordable for some. A respondent said that "It is hard for the others who do not have android phones and cannot afford to buy prepaid load to participate well in calls."

One also said that "Financial problem, it is very hard ma'am. For example, I have my own family sometimes I need to load my phone so that I can cooperate with our class instead of buying food for my children and my family."

However, with the quantity of data allocated by the internet service provider and the amount of data required by students to complete their online duties, it has been shown that students demand a significant amount of data, necessitating a greater load. It places more financial strain on the students to engage in and cope with class activities. The study of Adnan and Anwar [36] reveals that the majority of the students cannot access the internet due to technical and monetary issues. The findings of the study corroborate the study of Barrot and Llenares *et al.* [37], that financial issues frequently surfaced from the responses of the students. These students frequently linked the lack of financial resources to their access to the Internet, educational materials, and equipment necessary for online learning.

Furthermore, students have financial challenges when it comes to distance learning. It requires internet costs because they do not have financial support for the internet load that they need for the online class. Even if they have the option of working to support their education, they are unable to do so due to the current scenario as they are experiencing financial difficulties due to the pandemic, and it is difficult to obtain work to fund their learning needs [38].

## 5) Problem in the module requirement is high

In the current online delivery of learning, students were given tasks online. They are expected to complete the task given ample time to submit their outputs.

A student said that "Instructions in the module are not clear, though I want to clarify things to my teacher; it is really hard because of the internet connectivity."

Another respondent said that "We need to understand the lesson by using internet access with the module sent by our instructor or teacher. Some activities aren't clear so, we need a tutorial."

Another student also said that, "Now, we are all expected to learn inside our homes via the internet and modules," another student added, sometimes, the learning materials lack sections, which makes it hard to understand the issue, and it takes me too long to answer the assessment, so I submit my outputs late or not at all."

However, after the consolidation, thematization, and analysis of the students' responses in this study, it was found that students have been dealing with several problems regarding module requirements. There are portions of the syllabus that students must learn on their own (i.e., asynchronous sessions)—tasks that may not be possible to practice in a face-to-face setting. Students' capacity to learn and study course content during asynchronous sessions is a challenge for online students [35].

This result supports the study of Irawan and Dwisona *et al.* [34] that there are students' mood changes that occur as a result of too many assignments which students considered ineffective.

The students also mentioned that one of the challenges they have with remote learning is the lack of clarity in class content. This appears to be due to the content rather than the delivery mode because some of the students answered no matter how hard they try to listen to the Google Meet, they still can't follow the lesson. They also struggle with the module's textual instructions because they have trouble comprehending the curriculum, and some of the directions are unclear to them [38]. The result strengthens the study of Stansfield and McLellan et al. [33], to foster a student's interest in the content and help them feel like learning is worthwhile and gratifying, course materials must be carefully crafted and organized. Because online learning involves a high degree of learner control and a great deal of student accountability for their learning, learners must have a strong desire to learn.

The identified themes above it shows that online learning's dependence on technological equipment, as well as the provision of all such equipment, created a big challenge for institutions, professors, and students.

### V. CONCLUSION

The study explored the thoughts and opinions of the BSIT students on the new normal virtual learning using NVivo software to facilitate the process of defining and analyzing the themes. This is also to determine the common difficulties experienced by the students in the new learning setup. Based on the results of the study it is concluded that the above problems aired by students are just some of the adversities of the so-called New Normal of the Philippine Education System because of the Covid-19 pandemic. Students are still adjusting from the traditional school setup they were used to. Proper time management and discipline will be the most engaging tools for the students to pass through this. Coexisting with this Pandemic is one of the best defenses and might be the only choice for us to move forward. With the abovementioned Students' Perspective on the New Normal Virtual Learning, with its pros and cons, virtual classes must not prevent students from getting the education they need and deserve even amid the pandemic. Hence, it is recommended that virtual learning should be planned, implemented, and evaluated to lessen problems and achieve better learning objectives for each course. The institution could also keep employing offline teaching methods like using modules so that students who are unable to attend online can still follow along with their lectures. To address the scarcity of gadgets, the institutions may continue the financial aid program known as the Student Assistant Financial for Education Loan. Teachers should promote student interaction during online learning and provide easy-to-understand modules. Finally, instructors should continually improve their knowledge of efficient online delivery strategies.

### CONFLICT OF INTEREST

The authors declare no conflict of interest.

#### AUTHOR CONTRIBUTIONS

The authors took part in all aspects of the research, including data gathering, data analysis and producing the final copy. All authors had approved the final version.

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