Turkish Online Journal of Qualitative Inquiry (TOJQI)
Volume 12, Issue 7, July 2021: 9804 – 9813

Research Article

Microprocessor Course in a Virtual Classroom Perspectives from Technology Students in a State University in the Philippines

Marvin S. Canque[a],Lloyd Matthew C. Derasin[b], Joefrey A. Cortez[c], Francis Val A. Gamboa[d]

[a]Instructor, Research Coordinator, Chairman, Mathematics Department, Cebu Technological University-Naga extension campus, Central Poblacion, City of Naga, Cebu, Philippines
[b]Lecturer, Research Instructor, Graduate Program, Cebu Normal University, Osmena Boulevard st. Cebu City, Philippines
[c] Instructor, College of Technology, Undergraduate program, Cebu Technological University-Naga extension campus, Central Poblacion, City of Naga, Cebu, Philippines
[d] Instructor, College of Technology, Undergraduate program, Cebu Technological University-Naga extension campus, Central Poblacion, City of Naga, Cebu, Philippines

Abstract

The COVID 19 pandemic causes a sudden change in human and organizational activities, especially the academic institution. Yet, it offers an opportunity to re-engineer and restructure the roadmap of education to effectively and efficiently continue to perform the constitutional mandate of delivering quality and accessible education. Thus, a qualitative study of online microprocessor course was conducted to explore and describe the perspectives of technology students on online learning. Seven (7) participants were selected using the data saturation sampling method. The main instrument of the study is the researcher using the interview method. The data were analyzed using the Colaizzi method of analyzing qualitative data. The findings revealed six (6) significant themes, including "Limited Knowledge & Skills on Other *Available online platforms/Technology teaching,*" *"available gadgets in online classes,*" "*Available Internet Connectivity, Unsteadiness and Low speed of Internet connection,*" "*Lack of human interaction and communication" Experiencing stressful atmosphere,*" and *"Favorable to Face-to-face learning and Online learning.*" Online learning is accompanied by many barriers and challenges that hinder the teaching and learning process. The study recommends that the government and academic institutions establish/build a high-speed internet connection access to the students during online classes. Train and retrain teachers and faculty to different available online platforms to have comprehensive knowledge and skills in using technology in teaching. Lastly, train and retrain teachers and faculty in human relationships to improve handling and dealing with student issues and challenges.

Keywords: Virtual Classroom, Microprocessor course, Perspectives, Academic institution, Technology

Introduction

The global health crisis and its emergent consequences have changed the landscape of human life. Covid -19, directly and indirectly, defines our daily routines and challenges. It changes the shape of our fears and hopes for the future (Bergman, 2020). This pandemic disrupted human activities, rhythms, and routines that are broken and shatter patterns and norms of life. Yet, it exposes the best and the worst of humanity and human institutions (Zhao, 2020;).

The education sector is among the institutions that are heavily affected by this health crisis. As a result, it disrupts the operations of millions of schools, and it even forces closure to some schools. According to (Toquero, 2020; Guangul et al.,2020), higher education institutions across the globe are also affected, Mishra et

al. (2020) noted that COVID 19 pandemic had collapsed the whole educational system from elementary to tertiary level during the lockdown period in India and across the globe.

Yet educational countermeasures are taken to continue its mandate to educate the students despite the predicament of COVID-19 infection. It tested the academic sectors to their readiness in using technology such as software and hardware in the effectiveness of delivering instruction (Mukhtar et al., 2020). Yet offers opportunities to reimagine and re-engineer human institutions. It recreates the roadmap of the organizations, particularly in academic institutions.

The global health crisis provides opportunities for academic institutions to upgrade the educational mode and shift the delivery of instruction to emerging technologies to avoid face-to-face interaction (Toquero, 2020). The pandemic compelled many universities to immediately switch to the online delivery of lessons (Hew et al., 2020). It is a drastic countermeasure intended to ensure the safety of the students, school personnel, and teachers. Besides, it helps prevent the spread of COVID-19 and provides a safe learning environment. Thus, higher education institutions in the Philippines, including state universities and colleges (SUC), had adopted this countermeasure and shifted to online learning, e-learning, web-based learning, and internet learning to continue the services in education.

Howlett et al. (2009) define electronic or online learning as the use of electronic technology, devices, and media to deliver, support, and enhance learning and teaching, which involves communication between learners and teachers through the utilization of online content. While Baczek et al. (2021) defined, E-learning as using information technology to improve the quality of education.[1] Currently, online teaching is commonly used in the training of undergraduates---not as a sole method, but combined with the traditional teacher-led approach. The success of e-learning depends on many factors, including accessibility, usage of appropriate methods, course content, and assessment criteria

In this new platform of learning, the delivery of instruction content can be either synchronous or asynchronous. Synchronous delivery refers to real-time, teacher-led e-learning via teleconferencing or internet char forum. At the same time, asynchronous happens via email or weblogs, where delivery and receipt of data are not simultaneous. Thus, students, teachers, and college instructors have adopted technology to continue teaching and learning. Yet, the use of technology such as digital tools, computers, laptops, and mobile phones with internet connections posed new challenges to teachers, faculty, and students (Wut & Xu, 2021)

The new mode of learning causes sudden changes to the lifestyle of the teachers and students. Moreover, it changes the teaching methodology of the faculty, forces them and the students to make a sudden adjustment to meet the demand of the new teaching and learning process to fulfill the learning competencies and ensure quality teaching. Moreover, this learning modality brought many challenges and issues to the teachers, students, and parents in developing countries. In addition, in many developing countries, there is a lack of vital e-learning components such as computers, laptops, cellphones, and the skills of the faculty. Besides, the active and participative student who required interactive learning is rare in countries where the tradition teaches in a more didactic manner. Hence, it is vital for those concerned when implementing e-learning in developing countries to understand all challenges and understand which additional challenges a developing country may encounter.

In these views and opinions, the researchers are interested in investigating, exploring, and describing the perspectives of the technology students in their microprocessor course virtual classes. Considering it is a skill course/subject in which most discussions and activities require actual demonstration of the competencies and skills. Especially in troubleshooting topic which is typically associate it with repair, replace, and diagnosis. In addition, troubleshooting tasks require understanding the logic of a causal mechanism, such as the workings of a physical system or a procedure (e.g., a computer programmer needs to find the error(s) in a program). The student solving a troubleshooting task must also understand how the device or procedure works (e.g., understand the computer program).

Representation is vital in troubleshooting problems because they often require the integration of verbal and pictorial information. Thus, the student must create a model or apply a presentation. Generally, troubleshooting tasks involve diagnosing, proposing a solution, and executing the solution. Moreover, the

strategic behavior of poor troubleshooters was characterized by incomplete and inappropriate use of information, ineffective hypothesis generation and testing, and generally less strategic flexibility. They agreed that troubleshooting problem-solving is a crucial tenet of higher-order thinking and is rooted in real-life or authentic domains.

Statement of the problem

This study aimed to explore and describe the perspectives of technology students in their microprocessor class on the online platform. Specifically, it sought to answer the following problems:

1. How did the students perceive the online platform in the microprocessor course?
2. What are the challenges in learning microprocessor course on the online platform?

Research Design

This study is mainly a qualitative research design based on in-depth interviews of technological students who are currently enrolled in online learning. The study aimed to describe the perspectives of technology students in their microprocessor course in the virtual classroom.

Research participants and Sampling technique

The study informants are the seven (7) third-year Bachelor of Industrial Technology major in Computer Technology students in a state university in Cebu, Philippines. They were selected using the data saturation method to determine the number of informants. Data saturation means there is no more new information emerged from the interview. Thus, the investigation stops. Moreover, all the interviews were conducted in the informants' private residence or the place of their choosing.

Ethical Consideration

To protect and maintain the ethical standards in doing researches, the researcher called for a conference individually with each of the seven (7) informants. Converse with them regarding the importance of the study. Revealed to them all the facts regarding the research study. It includes the content and basis of conducting the study, the details of why they are chosen as study's informants, and the possible benefits and burdens of participating. Moreover, I also informed them that they could withdraw from the participation of the study at any time. Likewise, I also informed them that their participation is voluntary. During the interviews, if the informants do not feel like answering a particular question, they had the right to say so. Similarly, the informants were also guaranteed that their identities are protected throughout the study using fictitious/pseudo names. Any information they revealed is treated with high respect and confidentially. In addition, the informants are assured that they can access anything they want to know about the results or findings of the study. The participants are also given ample time to decide whether to participate in the research or not. The respondents signed informed consent before the interview session commences.

Data Gathering Procedure

Gathering of Data

Before the initiation of each interview, targeted participants received a consent form. After the consent form was signed and approved by the informants, the researcher made the interview schedule for each participant. The researchers planned all interviews and occurred in a private, quiet area of the informant's house or at a place convenient to the participant. In addition, the researcher did individual in-depth interviews with fifteen parents in a private setting and confidential. Moreover, the researcher informed the participants of their right to withdraw from the study at any time. The researcher tape-recorded the interviews, and each interview lasted for 25–30 mins on average. Data were collected through tape-recording in one-on-one interviews and focus group discussions with parents of elementary pupils. Soon after completion, the interviews were transcribed verbatim into vernacular and then translated into English. Maintain confidentiality of the subjects throughout the study by identifying them by using fictitious names so that only the researcher could identify the informants.

Data Analysis

The study used the Colaizzi method in analyzing data. It follows a seven (7) step process that provides an accurate and robust analysis that ensures the credibility and reliability of its result. The first step is transcribing and translating interviews, wherein the researchers need to obtain a sense of the participant's experiences by reading the participant's transcription several times. Then, reading and re-reading the transcripts while listening to the interview tapes. The second is extracting significant statements. The researcher needs to read the revised transcript once again to refresh their knowledge of the respective. They began to identify significant statements useful in identifying sentences and phrases directly related to the phenomenon under investigation. The third step is formulating meanings from significant statements. The researcher reviewed each of the participants' significant statements and assigned meaning to each and this required considering both the explicit and implicit meanings inherent in each statement. The fourth step is organizing the aggregate formalized meanings into theme clusters; in this step, the researcher carefully organized the formulated meanings into theme clusters to ensure confluence between the formulated meanings and theme clusters. The fifth step is writing a detailed description of the phenomenon. The researcher integrates all related information of the phenomenon under study through writing a full and inclusive description of the phenomenon that incorporates all the themes produced at step 4. The sixth step is identifying the fundamental structure. The researcher reviews the detailed description to identify key elements or core concepts, then transposed into a definition of the phenomenon reflective of the participants' descriptions of their experience. The seventh step is validating the detailed description with each participant. The researcher will return the findings to the participants to evaluate the result of the analysis as if it means the same as their actual experiences were.

The Thematic Analysis of the Study

There are six (6) themes generated in the study; "*Available online platform,*" *"available gadgets in online classes,*" "*Available Internet Connectivity, Unsteadiness and Low speed of Internet connection,*" "*Lack of human interaction and communication," Experiencing stressful atmosphere,*" and *"Favorable to Face-to-face learning over Online learning.*"

Theme 1. Limited Knowledge of Other Available Online Platforms/Technology teaching

Theme 1 of the study entails the available and prepared online platforms. The participants verbalized that they commonly used google meet, google classroom, and zoom to join/attend their online classes in microprocessor course because it's more, accessible cheaper, and affordable; it consumes less data.

As one participant uttered that google meet, google classroom is easy to use and consumes less load/data.

"*Odilo, Google meet, zoom and google classroom kay sayon gamiton and dili kayo kalas ug load kay data ra man amoa"* (participant 1)

In like manner, participant number 2 said that he used google meet and sometimes the flexible school learning like ODILO. Yet google is more favorable because it consumes less load/data

"Naggamit tag social media, like google meet, migamit sad ta sa CTU File Odilo, google classroom, zoom but google classroom kasagaran kay dili kalas of data" (participant 2)

Additionally, participants numbers 4 & 5 expressed that messenger first used then, followed by a zoom.

"The platform we are using is like messenger; the next one is zoom."

"The platforms that we are using last semester in Microprocessor course for communication is zoom."

"*Mao rato katong zoom aside sad atu if magklase mi katong kina last san raman sad to namo gigamit katong tinkercad"*

While participant number 6 uttered that at first zoom was used but we asked our instructors to use google meet to save money

"Via online using google meet kay amo gi hangyo ang teacher para ka save me the budget, dili man kayo paspas mo consumes of data"

Theme 2. Available Gadgets in their Online Classes

Theme 2 of the study conveys about the available device(s)/gadgets. The participants articulated that they only used smartphones so that they can attend/join their online classes.

As one participant shared that he only used android phone, a few times personal computer

"*Android phone sometimes PC.*" (Participant 1)

Another participant mentioned that he usually used mobile, since the laptop battery was destroyed. There were times I went/visited to internet café just to do my project.

"*Usually jud nako nga gigamit kay ako rang mobile phone like the whole jud diay sa kato sa kang major last sem. Kay mobile phone ra, since ang laptop namo kay naguba ang battery og nakaadtu sad kog internetan pero katulo ra Siguro sugod ra jud sa kuan kay needed jud biya ta maghimog activity atu nya human kay wala may keyboard kay lisod kaayo sa tinkercad lisod kaayo sa mobile ra mao to mag adto ko didto sa internetan pero katulo ra sad to kay nakapalit man sad kog mini keyboard para sa akong phone mao to." (Participant 2)*

On the other hand, participants 3,4, 5, 6, & 6 uttered that they used smartphones and cellphones in their online classes.

"Devices use kay smartphone kay wala man koy laptop"

"*Cellphone only, wala man koy lain gadgets so agwatna lang ko ani*"

"*Cellphone ra mao raman naa*"

"*Cellphone usahay sa computer*"

"*Cellphone ra nako kay mao raman ni available sa amoa jud*."

Theme 3. Available Internet Connectivity, Unsteadiness and Low speed of Internet connection

Theme 3 identifies the available internet connectivity and describes the speed and unstable internet connection. The participants verbalized that the new learning modality is not easy and hard to adapt, especially if you lack the resources, particularly a stable internet connection.

The participant expressed that for them to attend/join their online classes, they have to use the Wi-Fi PLDT connectivity kits issued to them by the university during the pandemic.

Participants 1, 3, & 4 said that they used Wi-Fi PLDT issued by the university.

"*Wi-Fi*" (participant 1), *Wi-Fi PLDT, nya Globe if Data*."

"*Wi-fi PLDT, niconnect rako sa akoang igsuon sa akong bana tag three-hundred ako monthly*."

Likewise, another participant said he used Wi-Fi because the Wi-Fi PLDT connectivity kits issued by the university was challenging to use. There was an issue about the signal of this connectivity kits, especially in our place.

"*I was given katong connectivity kit but wala jud siya nako nagamit kay naa man me internet connection, PLDT. Nya lisod man jud kay to gamiton katong kit nga gihatag kay ang signal diri kay pangitaon kaayo unlike sa PLDT kay iset ra sa taga PLDT kung asa angay ibutang*." (Participant 2)

While participant number 6 shared that he used Internet Wi-Fi, but he used data for his online classes.

"*Internet Wi-Fi, usahay data ra jud*."

In like manner, participants 5 and 6 shared that virtual learning is so difficult to manage, especially if your internet connection is unstable because the discussion is not continuous; it is always disrupted.

"*Realization nga lisod jud sya samot nag online class kay magbase baya mo sa signal. Nya lahi jud biya tong magkita jud mo kay largo-largo lang jud ang discussion* "(Participant 5)

"*I cannot say easily, so kuan ra siya average ra sya moderate kay lisod kaayo jud kay dili face to face ang klase. Kay kuan katong internet pwerting hinaya nya naay uban discussions di ma elaborates og tarong, kita pay magkuan dili jud parehas sa face-to-face nga makapangutana directly sa adviser/teacher in personal*." (Participant 6)

Moreover, participant number 7 expressed that online learning is not as easy as you think, especially if the internet connection is not stable. There a need to exert extra effort to have stable internet connection to join classes. Even if it's already late as long as I can attend the online discussion.

"*Narealized nako like magklase gani ta labina na dili stable ang internet connection naka realized ko nga dili kay sayon, ingon man sila nga way hagbong so ako gibuhat dakpon nako ang signal hangtud makaapil ko sa klase nya kung di jud makaya musabot raman pud ang teacher namo*." (Participant 7)

Theme 4. Lack of human interaction and communication

Theme 4 of the study utters the lack of interaction and communication between teachers and students in online learning. The participants verbalized that they have a hard time communicating and interacting with one another, which leads them to lack understanding of the concepts and have not acquired the microprocessor course skills in online discussion.

Participant number 2 uttered that I could understand, yet I cannot precisely get the instruction. It's hard to ask questions, especially if the teacher is not online, the questions were not addressed/answered immediately.

"*Makasabot man but naa jud times nga dili kaayo makuha ang instruction kung naa kay gusto ipangutana about sa instruction na ipabuhat sa teacher naa kay question pero ang nakabati lang kay katong google meet, google classroom maggamit tag ingon ana ang nakabati lang jud ato nila no kay kung na kay pangutana dili dayon ka matubag kung ang teacher wala sad sya ga online*." (Participant 2)

On the other hand, participant number 4 uttered that it's really hard for him to understand, there is still a need to carefully analyze the concept alone, unlike in face-to-face if things are not clear, the teacher was there to explain what to do and what the activity is all about

"*For me, lisod jud sya as in kung online ang klase kay kinahanglan paman gud ikay musabot once ang teacher muhatag siyag mga activities, quizzes so kailangan pa na ikaw pa ang mo comprehend whereas kay kung adto ka sa school mas masabtan man to nimo in actual ba pero karon sa ako lang nga side is lisoran jud ko kay ikaw pa ang musabot gud kung unsa ng gihatag sa teacher so para nako lisoran ko sa online*." (Participant 4)

While participant number 6 explained that it's hard to say an online class is easy, it could be average only, but it's more complicated than face-to-face. Especially if the speed of the internet connection is very slow, it's hard to ask questions to the instructor unlike in face-to-face you can directly ask the instructor.

"*I cannot say easily, so kuan ra siya average ra sya moderate kay lisod kaayo jud kay dili face to face ang klase. Kay kuan katong internet pwerting hinaya nya naay uban discussions di ma elaborates og tarong, kita pay magkuan dili jud parehas sa face-to-face nga makapangutana directly sa adviser/teacher in personal*." (Participant 6)

Theme 5. Experiencing stressful atmosphere

Theme 5 of the study expresses the stressful atmosphere it brought to them by the new modality in learning. The participants verbalized that their online classes in the microprocessor course cause too much stress because it's new. They are not yet familiar with the feature of the online environment. They have a hard time doing and finishing the said outputs and activities. Besides, no one can help them in doing such activities.

One informant stressed that online learning is very stressful, especially if he is on duty to his work and cannot do the tasks on time.

"*Stressful kaayo, kay naa tay buhatunon niya ako padung nako duty dili ko kabuhat.*" (Participant 3)

In addition, another informant said that online learning is very stressful especially it's his first time to experience this mode of learning. It causes a lot of adjustments to him

"*Stressful jud kaayo, labina tong pag-una, pinakafirst pa baya tong microprocessor system sa online class so naglisod jud ko maong na stress jud kaayo ato but pagkadugayan nakahinay-hinay ra pod kog recover atu ba, naka adapt nako sa environment nga mga pamaagi sa klase*." (Participant 4)

Moreover, informant number 5 uttered that online learning is stressful considering it's new to him. He is not familiar with the features of the online classroom environment. No one can help him in doing so.

"*Stressful jud kay siya, silbing bag-o pa ninyo wala pa moy idea ana nga subject nya samot nag online pa jud dili mo kapatudlo sa inyong mga classmates niya labina nag bag-ohan pa mo sa gigamit nga platform bitaw nga tinkercad*." (Participant 5)

Additionally, another participant revealed that it is very stressful because of the many activities and projects. Besides, the project needs a lot of materials and tools which very expensive.

"*Oh, stressful sya, because daghan kaayog mga activities ga patong-patong nya projects like daghan palitunon pwerting mahala makastress jud siya*." (Participant 6)

In like manner, participant number 7 expressed that not all things discussed in online learning are easily understood, especially if the internet connection speed is very slow. The best thing to do is to try hard to pass, which is the most important.

"*Dili tanan gipang discuss namo nga dali mas makuha nako ba naay times nga maglibog jud ko ba or di jud ko kakuha, paningkamotan nalang siguro nga kapasar ta ani pero wala na kayko nakasabot sa uban labi nag ing ani online lang dili actual ba*." (Participant 7)

Theme 6. Favorable to Face-to-face learning over Online learning

Theme 6 of the study reveals the participants prepared mode of learning. The participants verbalized that the new platform is not engaging, not challenging, and not lively. There is no hands-on activity, especially in doing projects, except you have all the materials and equipment. Unlike in face-to-face, there is actual demonstration and hands-on in the materials and equipment.

Participant number 2 said online learning in some way helpful, but face-to-face is better.

"*Actually, helpful man sya karon pero mas better jud tong face to face*." (Participant 2)

On the other hand, participant number 3 realized that face-to-face is better than online because it is not interesting.

"*Realization kay mas maayo og face to face kay sa online*" (Participant 3)

"*Di interesting*" (Participant 3)

"*My realization is that lisod jud siya ug our life lisod jud ang atung kinabuhi because sa kini nga new normal education kay dili man ta ka basta-bastag lakaw-lakaw kung asa ta padung, distant na kaayo ta away*

from sa atung mga classmates layo na jud kay ta nila kay tungod sa new normal tungod kay di naman ta magkita-kita." (Participant 4)

Participant number 6 supported that online learning is not interesting and boring.

"*No, not interesting kay para nako boringan ko*." (Participant 6)

"*Dili kaayo kay parehas sa ako giingun ba nga dili ko prefer ani sa karon nga new normal like sa mga apps lang nga dili sya hands on, mas prefer jud nga adto ta sa skwelahan maghimo ana kaysa mga app karon nga gigamit okay raman siguro kung kompleto tag gamit pero unsaon*

mankuwang gamit pwerti pa lisora." (Participant 7)

Discussions

The study findings provide some crucial insights that could help improve online learning/virtual learning. The first theme revealed the students' two commonly used online platforms to attend/join their virtual discussions, such as google meet and zoom. However, the university flexible learning platform was used but seldom only. It informs the students and teachers of the lack of knowledge and skills on effectively using the other forms of available online platforms, which could provide them with better, more precise, and accessible virtual learning. Other available online platforms that can be used in online learning are elias, model, Edmudo, Bigbluebuttom, Skype, etc. Cakrawati (2017) found out that Edmudo and Quipper are proven effective and efficient online teaching and learning platforms in terms of time. Basilaia & Kvavadze (2020) revealed that other available online platforms can be used for online education and live communication, such as slack, edu page, online portal, TV school, and Microsoft teams. Rasheed et al. (2019) revealed that one of the challenges teachers face in online learning is the provision of suitable learning technology. The finding implies that teachers and students need training and workshops on the different available online platforms as well as in technology teaching to improve their skills.

Another theme of the study revealed that the students have no other available gadgets or equipment to be used in their virtual learning except smartphones/cellphone. For them, it is handy and provides convenience. It is consistent with Anshari et al. (2017) findings that students used their smartphones to access teaching materials or supporting information, which is usually accessible through the internet. Students use smartphones as learning aids for many reasons such as convenience, portability, comprehensive learning experiences, multi-sources and multitask, and being environmentally friendly. It is also used to interact with teachers outside classes and using smartphones to manage their group assignments. However, the functionality of this type of gadget has a lot of limitations, which could hinder learning. In an online era where current and upcoming generations are connected and are comfortable using mobile devices. Education should take advantage of this by delivering courses for access on mobile devices. Using portable computing devices (such as iPads, laptops, tablet PCs, PDAs, and smartphones) with wireless networks enables mobility and mobile variation related to instructional approaches, disciplines, learning goals, and technological tools. Yet, the finding manifests the lack of resources available and accessible in their home during their virtual learning. It describes the degree or level of readiness of the students in online learning regarding the technological instruments. In this case, it manifests unreadiness/unpreparedness of online/e-learning.

On the other hand, the WI-FI PLDT internet connectivity kits, mobile data, and the speed of internet connection of the students revealed they have poor internet connection during their online classes. With this, they are expected to be on and off in the virtual room during the discussion. They might miss some essential ideas and details about the things deliberated in the class. In virtual/online learning, the stability and speed of internet connection play a crucial role in an effective teaching and learning process. Continues video and teleconferencing, and even continuous discussions can better communicate and understand the concepts and skills. Korkmaz, G. & Toraman, Ç. (2020) found that one of the challenges in online learning is students' internet connection problems. Rabbani et al. (2020) said that an Internet-facilitated environment might contribute to the teaching and learning process in the Technical and Vocational Education (TVE) setting if adequately implemented by providing a high-speed internet connection. Thus, in online learning, students

struggle to understand assignments and easily get distracted from not having reliable internet. It implies the unreadiness of the school, university, or government in implementing online learning

In like manner, the absence of human interaction or face-to-face communication between the teacher and students, student-to-student in virtual classrooms hinders the students from having a better and deep understanding of the concepts and skills deliberated in the class. Sit et al. (2004) said that one of the challenges in online learning is the lack of opportunity for human interaction, which is deemed necessary for establishing peer support and developing in-depth discussion on the topic being discussed. Wut & Xu (2021) found that student interaction cannot fully show the cognitive and affective social presence in online learning the student to instructor. Additionally, Baticulon et al. (2021) revealed that one of the barriers encountered by medical students in the Philippines is poor communication between educators and learners. Korkmaz, G. & Toraman, Ç. (2020) discovered a lack of educator-student interaction in online learning. It implies that in-person or person-to-person interaction plays a vital role in teaching and learning. It provides comfort and assurance, especially to the less fortunate and to those less abled learners. The necessary support and assistance from the knowledgeable person(s) they need are always there.

However, the stressful atmosphere experienced by the students during their online classes signifies difficulty in adjusting to the new environment in learning. Since it is a sudden shift of learning modality, thus it causes significant adjustment, and it needs enough time for them to cope with the new learning style. It is consistent with Baticulon et al. (2021) findings that in online learning, students have difficulty adjusting the learning style(s) employed by their instructor and performing the activities at home. Especially for students who could not join remote classes due to a lack of internet access or devices or because they had to take on additional jobs and home responsibilities during this time. Batubara B.M. (2021) found that one of the obstacles faced in implementing this learning method, namely the unpreparedness of students in the online teaching and learning process,

In developing countries like the Philippines, where online learning is new thus, an internet connection is a big challenge. It is not a surprise if there is a preference for traditional learning over online learning among the majority of the students. Discomforts and issues accompany any sudden or abrupt change always accompanied because it is part of achieving success. Yet, it is dependent on the openness and willingness of those affected by this sudden change. Besides, ample time is an element to adjust and accept the new platform in learning. Many instructors, however, have found developing practical online tasks in a very short period of time very stressful and challenging (Hew et al., 2020). Many faculty members and students do not see the value of fully online learning, and students realize that the new normal is not easy and challenging. As this tough academic term begins, we urge educators to pause and reflect on what worked and didn't during remote learning class.

Conclusion

The COVID 19 pandemic brought sudden changes to the landscape of the educational settings. It causes a sudden shift to online learning that brought many challenges and issues, especially in a developing country where internet connection is very slow and financial capacity is a challenge. It causes many barriers and hindrances in the teaching and learning process, leading to students' lack of understanding and difficulty acquiring skills and competencies, especially in skill courses/subjects. The study recommends that the government and academic institutions establish/build a high-speed internet connection accessible to the students during online classes. Train and retrain teachers and faculty to different available online platforms to have comprehensive knowledge and skills in using technology in teaching. Lastly, train and retrain teachers and faculty in human relationships to improve handling and dealing with student issues and challenges.

References

[1] Anshari, M., Almunawar, MN., Shahrill, M., Wicaksono, DK., & Huda, M. (2017). Smartphones usage in the classrooms: Learning aid or interference? Education and Information Technologies, 22 (6). DOI:10.1007/s10639-017-9572-7

[2] Bączek, M., Bączek, Z., Szpringer, M., Jaroszyński, A., & Kapłon, B.W. Students' perception of online learning during the COVID-19 pandemic: A survey study of Polish medical students. Medicine, 100 (7). doi: 10.1097/MD.0000000000024821

[3] Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 Coronavirus (COVID-19) Pandemic in Georgia. Pedagogical Research, 5(4), em0060. https://doi.org/10.29333/pr/7937

[4] Baticulon, R., SY, JJ., Alberto, NR., et al. (2021). Barriers to online learning in the time of COVID-19: A national survey of medical students in the Philippines. Medical Science Educator 31, 615–626. https://doi.org/10.1007/s40670-021-01231-

[5] Batubara, B.M. (2021). The problems of the world of education in the middle of the Covid-19 pandemic. Budapest International Research and Critics Institute-Journal (BIRCI-Journal), 4(1), 450-457. https://doi.org/10.33258/birci.v4i1.1626

[6] Bergman, M. (2020). The World after COVID. World 2020, 1, 45–48; doi:10.3390/world1010005

[7] Cakrawati, l. (2017). Students' perception on the use of online learning platforms in EFL classroom. English Language Teaching and Technology Journal (ELT-Tech Journal), 1 (1), 22-30. http://ejournal.upi.edu/index.php/ELTTech/article/view/9428

[8] Guangul, F.M., Suhail, A.H., Khalit, M.I., Khidhir, B. (2020). Challenges of remote assessment in higher education in the context of COVID-19: A case study of Middle East College. Educ Asse Eval Acc 32, 519–535. https://doi.org/10.1007/s11092-020-09340-w

[9] Hew, K., Jia, C., Gonda, D., & Bai, S. (2020). Transitioning to the "new normal" of learning in unpredictable times: pedagogical practices and learning performance in fully online flipped classrooms. International Journal of Educational Technology, 17 (57). https://doi.org/10.1186/s41239-020-00234-x

[10] Howlett, D., Vinent, T., Gainsborough, N., Fairclough, J., Taylor, N., Cohen, J., & Vincent R. (2009). Integration of a case-based online module into an undergraduate curriculum: what is involved and is it effective? E–Learning, 6 (4). https://doi.org/10.2304/elea.2009.6.4.372

[11] Korkmaz, G. & Toraman, Ç. (2020). Are we ready for the post-COVID-19 educational practice? An investigation into what educators think as to online learning. International Journal of Technology in Education and Science (IJTES), 4(4), 293-309.

[12] Mishra, l., Gupta, T., & Shree, a. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. International Journal of Educational Research Open. https://doi.org/10.1016/j.ijedro.2020.100012

[13] Mukhtar, K., Javed, K., Arooj, M., Ahsan Sethi, A. (2020). Advantages, Limitations and Recommendations for online learning during COVID-19 pandemic era. Pakistan Journal of Medical Sciences, 36(COVID19-S4). https://doi.org/10.12669/pjms.36.COVID19-S4.2785

[14] Rabbani, K. M. M. G., Raihan, M. A., & Khan, M. E. I. (2020). Constraints of using internet in technical and vocational education: Bangladesh Context. Journal of ELT and Education, 3(2): 34-43, Retrieved from https://jee-bd.com/journal/3262020].

[15] Rasheed, R., Kamsin, A., *Abdullah, N. (2020). Challenges in the online component of blended learning: A systematic review. Computer Education, 144. https://doi.org/10.1016/j.compedu.2019.103701

[16] Sit, J., Chung, J., Chow, M., & Wong, T. (2005). Experiences of online learning: students' perspective. Nurse Education Today, 25, 140–147. doi:10.1016/j.nedt.2004.11.004

[17] Toquero, C. M. (2020): Challenges and Opportunities for Higher Education Amid the COVID-18.19 Pandemic: The Philippine Context. Pedagogical Research, 5 (4) em0063 2020. https://doi.org/10.29333/pr/7947

[18] Wut, T., & Xu, J. (2021). Person-to-person interactions in online classroom settings under the impact of COVID-19: a social presence theory perspective. Asia Pacific Education Review, https://doi.org/10.1007/s12564-021-09673-1

[19] Zhao, Y. (2020). COVID-19 as a catalyst for educational change. Prospects. 49:29–33 https://doi.org/10.1007/s11125-020-09477-y