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Factors and the challenges experienced by students and faculty in the new normal learning mode

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A B S T R A C T

Educational institutions worldwide employed different modalities to give full opportunities to experience teaching - learning processes and to help the students to engage in this new learning environment without compromising its quality which created challenges to both students and faculty. The Teacher Education and College of Computer Studies programs were really experiencing difficulty and challenges to adapt because the internet connectivity is not stable. They also found issues on learning materials, supports and other factors affecting on its accessibility and delivery of learning. This study aimed to determine the factors affecting the learning environment in terms of. internet connectivity, device used, and the learning physical location and the challenges experienced by the students and faculty of the said programs in terms of learning materials, accessibility of learning materials, learning environment, learning support, and submission of outputs. Likewise, those factors have no direct impact to the challenges encountered by the faculty and students. It utilized the descriptive – correlational method to the 282 randomly selected students and 20 total enumeration faculty through google meet. Results revealed that most of the respondents have limited access using their smart phones and laptop via google meet or messenger in their respective homes. Likewise, students experienced challenges in accessing learning materials with sufficient learning contents while teachers found difficulty in learning supports. The administration may prioritize the upgrading of internet connection, establishment of learning hubs, and subscriptions of learning management system to support the students and faculty in creating effective teaching environment.

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RESUMO

Instituições educacionais em todo o mundo empregaram diferentes modalidades para dar oportunidades plenas de vivenciar os processos de ensino-aprendizagem e para ajudar os alunos a se envolverem neste novo ambiente de aprendizagem sem comprometer sua qualidade, o que criou desafios tanto para alunos quanto para professores. Os programas de Formação de Professores e Faculdade de Estudos de Computação estavam realmente enfrentando dificuldades e desafios para se adaptar porque a conectividade com a Internet não é estável. Também encontraram problemas nos materiais de aprendizagem, apoios e outros factores que afectam a sua acessibilidade e entrega da aprendizagem. Este estudo teve como objetivo determinar os fatores que afetam o ambiente de aprendizagem em termos de. conectividade à Internet, dispositivo utilizado e localização física de aprendizagem e os desafios enfrentados pelos alunos e professores dos referidos programas em termos de materiais de aprendizagem, acessibilidade de materiais de aprendizagem, ambiente de aprendizagem, apoio à aprendizagem e envio de resultados. Da mesma forma, esses fatores não têm impacto direto nos desafios encontrados pelo corpo docente e pelos alunos. Utilizou o método descritivo-correlacional para 282 alunos selecionados aleatoriamente e 20 professores de enumeração total por meio do Google Meet. Os resultados revelaram que a maioria dos entrevistados tem acesso limitado usando seus smartphones e laptops via Google Meet ou Messenger em suas respectivas residências. Da mesma forma, os alunos enfrentaram desafios no acesso a materiais de aprendizagem com conteúdos de aprendizagem suficientes, enquanto os professores encontraram dificuldades no apoio à aprendizagem. A administração pode priorizar a atualização da conexão à Internet, o estabelecimento de centros de aprendizagem e assinaturas de sistemas de gestão de aprendizagem para apoiar os alunos e professores na criação de um ambiente de ensino eficaz.

Palavras-chave.
Conectividade com a Internet, dispositivo usado, localização física de aprendizagem, materiais de aprendizagem, ambiente de aprendizagem

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Introduction

Due to the makeshift of education setup worldwide, the learning institutions continue to find means and ways to address the challenges that they are experiencing without compromising the quality of education. To keep in focused with the goals of UNESCO in giving access to education amidst this health issue, the Philippines has reformed its educational system suited to the arising needs. Since physical separation is strictly enforced and has become a prerequisite in maintaining everyone's safety, these issues still built a foundation for distance learning.

Educational institutions worldwide tried to employ different modalities to give full opportunities to experience teaching - learning processes and to help the students to engage in this learning environment in its call for excellence which created challenges to both teachers and students. Barrot, et.al (2021) revealed that the greatest challenge of the college students was linked to their learning environment.

After a year, a Joint Memorandum Circular No. 2021_004 was issued between Commission on Higher Education (CHED) and Department of Education (DOH), allowing the schools to conduct limited face to face classes provided, they would retrofit the facilities to be protective and to comply with minimum public health protocols and standards hoping to uplift the quality of education.

But then, due to continuous issues on the COVID cases, most of the institutions both public and private were hesitant to pursue this proposed setup; instead, they continue their preferred modalities.

Since then, the faculty and students of Teacher Education and College of Computer Studies were in consonance with approved academic guidelines although they are still experiencing difficulty and challenges to adapt since the internet connectivity is not stable. Aside from that, they are also struggling in downloading and uploading learning materials, difficulty in getting supports and other factors affecting on its accessibility and delivery of learning. Dayagbil et.al (2021) found out that most of the students had difficulty complying with the learning activities and requirements due to limited or no internet connectivity.

With the cited situations, this study was conducted among the faculty and students of MINSU. It aimed to determine the factors affecting the teaching- learning environment and the challenges encountered by the faculty and students of CCS and CTE Programs. Specifically, it sought answer to the following questions: What are the factors affecting the teaching- learning environment of faculty and students in terms of Internet Connectivity (Status & Quality), Device Used (Gadgets & Apps used) and Learning Physical Location; What are the challenges experienced by the students and faculty in the teaching-learning process in the new normal in terms of Learning Materials, Accessibility of Learning Materials; Learning Environment, Learning Support and Submission of Output and What is the relationship between the factors

effecting the teaching- learning environment and the challenges experienced by the faculty and students?.

Materials and Methods

The study utilized the descriptive – correlational method where descriptive research was employed to determine the learning factors affecting its utilization while Correlational approach of research was used to assess the degree of relationship between the factors effecting the teaching- learning environment and the challenges encountered by the faculty and students. The 282 randomly selected students and 20 total enumeration faculty served as respondents of this study from CTE& CCS programs. To establish reliability and validity, the instrument underwent the necessary procedures. After considering the corrections, suggestions, and recommendations, the instrument was validated through the test-retest process. Likewise, necessary communications, consents, and permits were observed secured as deemed needed part of the inquiry. The needed data were gathered online via google meet/ messenger and treated with confidentiality.

Distribution of the Respondents of the Study

Table 1.

Population Number of Sample (Students)

	Programs	Population	Number of Sample
1	BSED – English	109	32
2	BSED – Mathematics	89	26
3	BSED – Science	133	39
4	BEED	118	35
5	BSIT	241	72
6	BCPE	260	78
	T O T A L	950	282

Table 2.

Population Number of Sample (Faculty)

	Programs	Population	Number of Sample
1	CTE	10	10
2	CCS	10	10
	T O T A L	20	20

Results and Discussion

1.Factors affecting the teaching- learning environment of students and faculty in terms of:

Internet Connectivity

As shown from the figures 1a and 1b, in terms of status, both students and faculty have the same results in terms of connectivity, where 45% with limited access and only 20% have full; however, in terms of quality,25% works half of the time and 15%, and 12% works most of the time and all the time respectively. Results revealed that the students and their instructors encountered difficulty to connect, access and provide necessary information and learnings from one another due to limited and inadequate connection. This also implies that the students couldn't able to fully access because the connection is not continues and it works half of the time. Based on the study conducted by Maatuk, et al., (2022), claimed that the students experienced difficulty in the introduction of e- learning because of the low internet quality which considered as one of worse causes and challenges in its application to achieve better learnings.

Figure 1.a

Internet Connectivity in terms of Status and Quality

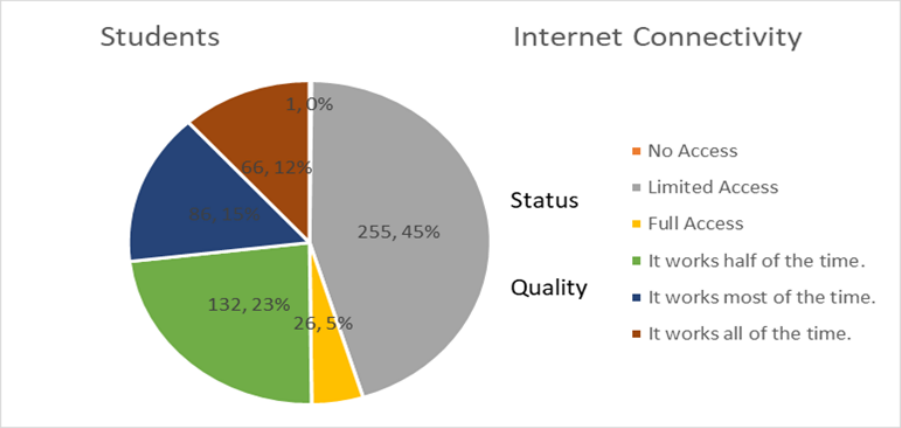
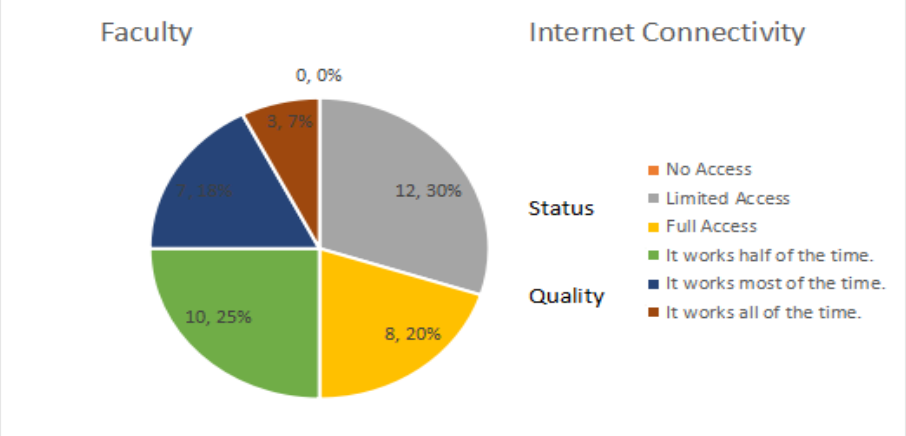


Figure 1.b

Connectivity in terms of Status and Quality Internet



Device Used

As reflected from the figures 2a and 2b, in terms of availability of device used, the students' preferred gadget is smartphone 28%, while Google Meet as their apps: on the other hand, the faculty used laptop 50% and google meet and messenger as their apps used. The findings implied that smartphones and laptop are the commonly used gadgets at home for their teaching and learning activities. In addition, since the google meet is one of the most accessible and hassle -free applications, thus this was used anytime both by students and faculty in their classes. The results further show that most of the students used phones, thus there are possibilities that they might have limited information to be accessed but their instructors find means to assist them. Moreover, Northeastern University (2020) student survey found that one of the most valuable things instructors could do is check in briefly with students on how they are doing and ask them for feedback on how the class is going. This simple act demonstrates care for student well-being, and let students know that you value their perspectives.

Figure 2.a

Device Used in terms of Gadgets and Apps Used

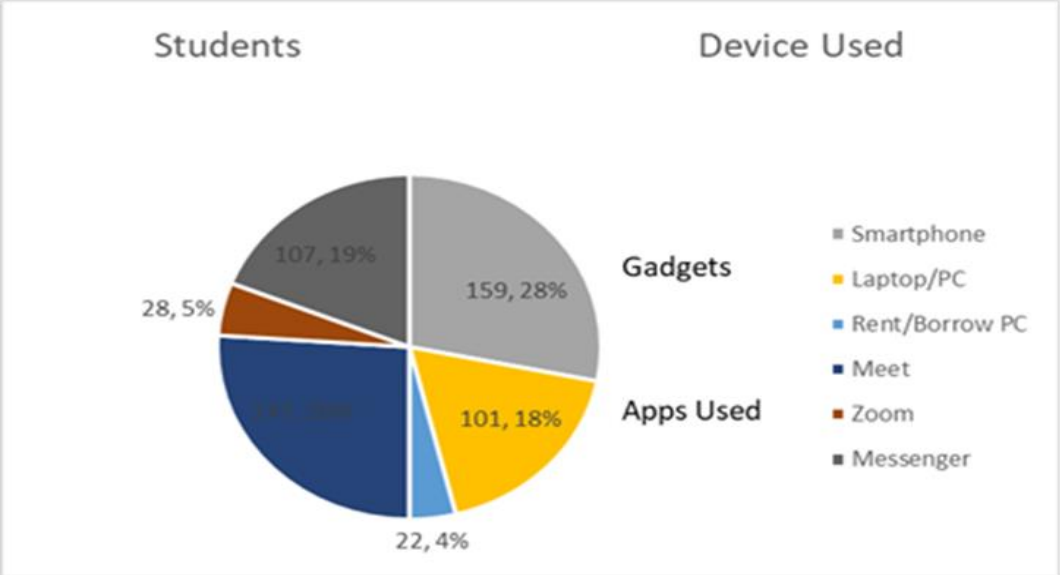
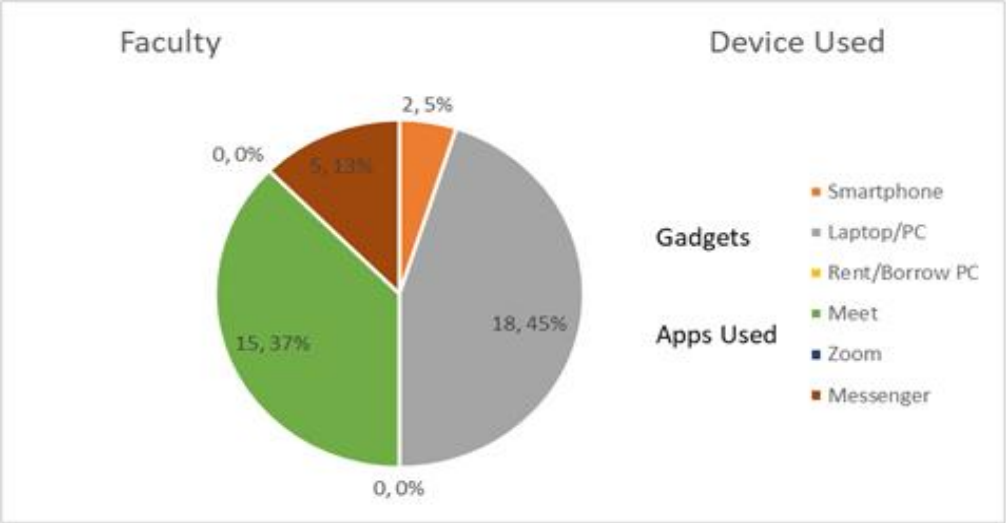


Figure 2.b

Device Used in terms of Gadgets and Apps Used



Learning Physical Location

Based on the results, both students and faculty stay on their respective houses during their online classes 92% and 90% respectively. The results also revealed that teaching and learning processes were done at home since during that time, they are advised to work at home and only few who have chosen to stay in the boarding houses for some reasons, but they could still cope in their online classes. This is supported by Gopal, et al (2021), that focused on the satisfaction and performance of students in online classes. It examined the factors that affect students' satisfaction with online learning. Although the study does not explicitly delve into the submission of outputs, it provides insights into the overall experience of students during online classes. This suggests that students' satisfaction and performance can be influenced by factors such as instructor presence, course content, and learning resources. If these aspects are effectively managed, it is likely that the submission of outputs and assessment can also be appropriately handled in the online learning environment.

Figure 3.a

Learning Physical Location

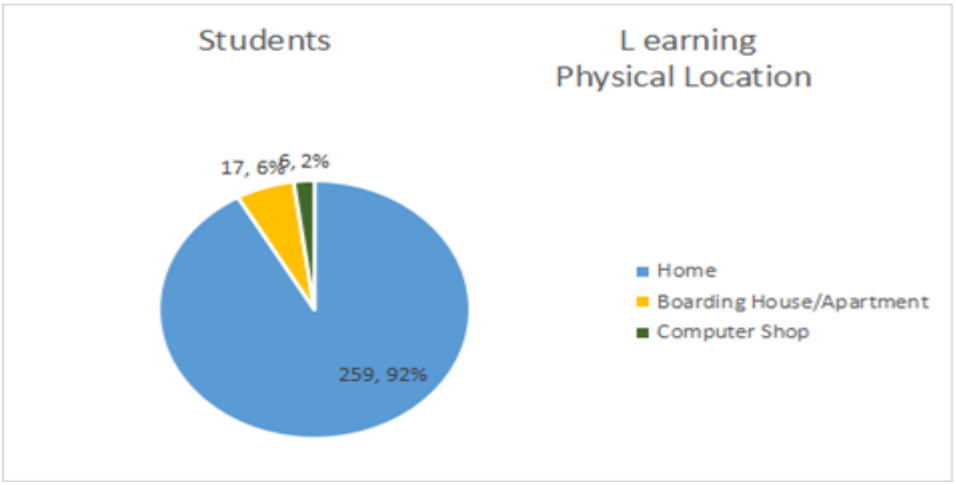
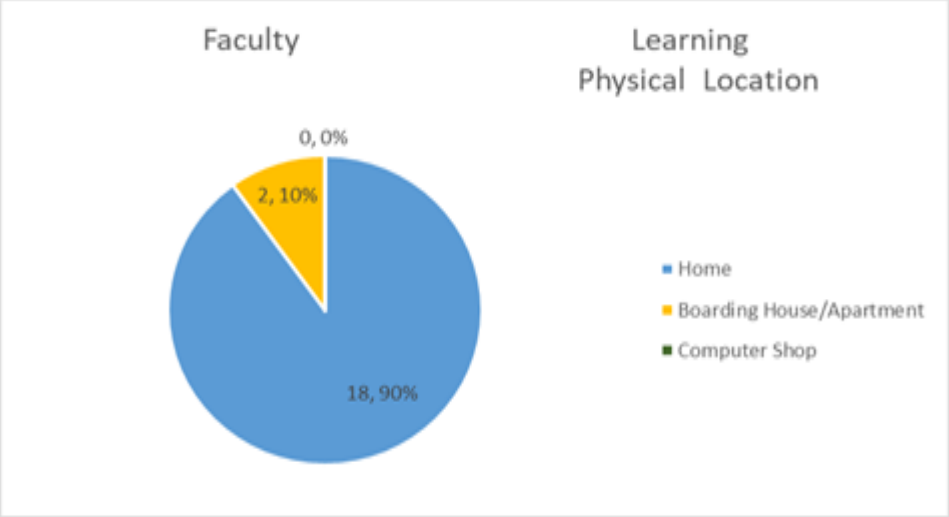


Figure 3.b

Learning Physical Location



2.The challenges experienced by the students in the teaching-learning process in terms of:

Learning Materials

The overall computed mean score of 3.89 revealed that the online learning materials are adequate. As indicated, the content of learning materials for students were packed with sufficient knowledge that the students need. Moreover, the survey showed that teachers integrated ICT in their modalities, hence they used different learning apps like google meet, and messenger to effectively deliver the lessons. This means that students, although struggling to cope with the modality, were still catching up with the lessons because they have online access to their lessons. Gopal, et al (2021) reiterated that students' satisfaction and performance reflects on the quality of course content and learning materials. Moreover, the instructor's presence during online classes plays a significant role in boosting the students' motivation and attitude towards the study.

Table 3.
Learning Materials

Items	Mean	Rank	Interpretation
1. Accesses module/IMs with sufficient learning contents	3.8	5	High Extent
2. Receives module /IMs with sufficient learning contents	3.87	4	High Extent
3. Sends module that contains drills/exercises and activities	3.91	3	High Extent
4. Employs ICT in the discussion and assessment of the lessons	3.92	2	High Extent
5. Uses various apps in learning of the lessons.	3.93	1	High Extent
Overall Mean	3.89		High Extent

Accessibility of Learning Materials

The overall mean score of 3.89 showed that the students are prompt in terms of accessing learning materials. The result posited that students can receive the learning materials on time and submit outputs via different preferred social platforms. This implies that students' accessibility to learning materials is optimal despite the learning modality they have. They can retrieve information with such ease although they have limited internet connectivity. Russ and Hamidi (2021) implicitly inferred that students' accessibility to learning materials is influenced by their learning condition and environment. Although many of the students have limited access to the internet, they still manage to retrieve and send their outputs at a given time or schedule. Moreover, instructor's presence and emotional support to their study have significant impact to their productivity as it encourages them to strive harder on their academics.

Table 4.
Accessibility of Learning Materials

Items	Mean	Rank	Interpretation
1. Receives learning materials/ modules that are accessible to the students.	3.99	1	High Extent
2. Accesses the module/ learning resources on time.	3.8	4.5	High Extent
3. Downloads e-resources to be used by all students.	3.88	3	High Extent
4. Submits/sends learning materials that are delivered via social Platforms.	3.97	2	High Extent
5. Gains knowledge through online discussion using other learning apps.	3.8	4.5	High Extent
Overall Mean	3.89		High Extent

Learning Environment

Revealing the overall computed mean score of 3.8 probed that the learning environment of the students during online classes is conducive enough. The survey indicated that students, despite struggling with physical noises, are still able to interact and partake on their online discussions. The results also demonstrated a positive atmosphere during classes. This means that the teacher and the students could freely exchange ideas and able to discuss the lessons satisfactorily. Despite the condition, the study showed that students can still enjoy learning through the utilized learning modality. In terms of conduciveness, the study result of Dayagbil, et al. (2021) revealed that most of the students (82.61%) and faculty (94.4%) have internet access. However, most of their internet connections were not stable that make their home environment less conducive to provide sustainable internet access for teaching - learning environment suited for the online readings and activities. Moreover, this simple act demonstrates care for student well-being, and lets students know that you value their perspectives. Moreover, Rosa & Domos,(2020), found out that the teachers and students

collaboration during online learning gives promising outcomes because of their individual identities and self-awareness, which harmonize to their own learning and teaching styles.

Table 5.

Learning Environment

Items	Mean	Rank	Interpretation
1. Checks learning place whether it is conducive and free from destruction.	3.14	5	Moderate Extent
2. Considers availability of local learning materials.	3.75	2	High Extent
3. Accesses the information and learning due to strong connectivity.	3.54	4	High Extent
4. Feels positive atmosphere between students and teacher during class discussion.	3.82	1	High Extent
5. Enjoys appropriate on-line learning strategies and approaches to the students.	3.74	3	High Extent
Overall Mean	3.8		High Extent

Learning Support

The overall mean score of 3.67 attested that learning support between peers is adequately evident. This means that students receive enough assistance in their study in terms of moral, emotional, and physical aspects. In terms of difficulties on the learning modality, students promptly receive help from their peers. For some learners, the new normal learning modality is confusing, but with the aid of their classmates, they were able to cope with their own learning. However, in terms of administrative financial support specifically load allowance and supplies, students barely receive assistance because of limited funds. Deslauriers, et al. (2019) posited that students interactive learning undertakings including peer discussions help students to develop better understandings of the instructional materials. Moreover, Zeeshan et al. (2020) emphasized how vital the technical support from the administration to provide the students with technical assistance to enhance and manage technological pressures for the successful online teaching – learning activities.

Table 6.

Learning Support

Items	Mean	Rank	Interpretation
1. Requests for assistance in addressing their needs towards getting and sending the lessons.	3.71	3	High Extent
2. Solicits advice when students find difficulty towards teaching learning process.	3.68	4	High Extent
3. Seeks helps to their peers to assist them in preparing and sending the module/ lessons.	3.82	1.5	High Extent
4. Receives administrative supports such as load allowance, supplies, and the like.	3.34	5	Moderate Extent
5. Shows concerns on ones feeling and attitude during online discussion.	3.82	1.5	High Extent
Overall Mean	3.67		High Extent

Submission and Uploading of Outputs

The overall computed mean score of 3.83 emphasized that students are prompt in submitting their outputs. The result implied that student, if not on time, still pass their output reasonably. It also showed that students adhere to the deadline of their activities. They are aware of the pacing despite the limited internet connection. As per the study conducted by Dayagbil, et al. (2021), the result indicated that teaching continuity was made possible through online modality and other home-based tasks. However, students still had difficulty complying with the requirements of the course. This is because learners believed that their home environment is not conducive for learning when schools were closed, and physical contact was discontinued as there were many disruptions including internet connectivity.

Table 7.
Submission and Uploading of Outputs

Items	Mean	Rank	Interpretation
1. Attends orientation and the use of different platforms.	3.83	2	High Extent
2. Downloads, uploads and turns in the outputs on time.	3.8	4	High Extent
3. Considers the right pacing of accomplishing activities.	3.81	3	High Extent
4. Sends or submits the complete parts of the outputs.	3.93	1	High Extent
5. Considers the uncertainty of sending and turning back of the outputs.	3.78	5	High Extent
Overall Mean	3.83		High Extent

Challenges Experienced by CCS and CTE Students in the Teaching-Learning Process

The overall computed mean score of 3.82 indicated that students experienced challenges in their online class at a high extent. The result revealed that CCS and CTE students have a reasonable stand in their online classes. It can be said that despite the struggles brought by the new learning modalities, students still managed to cope with their academic responsibility. They could receive and submit their outputs at the given time. However, not all students have access to internet that is why they were given ample consideration by their subject instructors. Moreover, the study showed that despite the learning distractions, students were still encouraged to participate in their online class discussions—that entail a good teaching strategy employed by the teachers although implicitly shown in the study.

Hotez (2020) quoted that students have experienced a lot of challenges during the pandemic. In the same veins, De Duzman (2021) reported that internet access is a huge challenge in the Philippine school setting. However, students appreciated the use of online learning during the pandemic

Table 8.
Summary Results

Challenges Experienced by Students in the Teaching-Learning Process	Mean	Rank	Interpretation
2.1 Learning materials	3.89	1.5	**High Extent**
2. 2. Accessibility of learning materials	3.89	1.5	**High Extent**
2.3. Learning Environment	3.8	4	**High Extent**
2.4. Learning Support	3.67	5	**High Extent**
2.5 Submission and Uploading of Outputs	3.83	3	**High Extent**
Overall Mean	3.82		High Extent

Faculty

Learning Materials

The overall computed mean score of 4.32 indicated that the learning materials given by the faculty are adequate. The faculty ensured that the learning package that they have posted in learning apps were suitable. Moreover, the results illustrated that the faculty integrate ICT in their discussions as part of their learning modality. Thus, it can be concluded that online learning, despite the connection problems, caters the learning needs of the students. Furthermore, the data inferred that the faculty is efficient in terms of coping with the new learning modality. Carnegie Corporation of New York (2021) revealed that during the pandemic, the value of high-quality instructional materials and strong family partnerships has been highlighted as crucial for successful learning. Educators, families, and students have found that learning was most successful when these two factors were in place.

Table 9.
Learning Materials

Items	Mean	Rank	Interpretation
1. Offers module and other instructional materials that contain doable learning outcomes.	4.35	3	High Extent
2. Provides modules/IMs with sufficient learning contents.	4.3	4.5	High Extent
3. Utilize module that contains drills/exercises and activities.	4.3	4.5	High Extent
4. Uses ICT in the discussion and assessment of the lessons.	4.25	2	High Extent
5. Employs various learning apps in delivering of the lessons.	4.45	1	High Extent
Overall Mean	4.32		High Extent

Accessibility of Learning Materials

Showing the overall computed mean score of 4.51 revealed a strong positive response. This means that the learning materials posted in learning apps were accurate, relevant, and

conveyed information. The results also showed that the learning materials posted by the teachers are highly accessible for students, allowing them to utilize the learning materials during class discussion. Russ and Hamidi (2021) stated that ensuring the accessibility of learning materials during the pandemic is crucial to ensure equal educational opportunities for all students. Institutions and educators can work towards creating accessible course materials by incorporating features such as screen reader compatibility, closed captioning, alternative text for images, and other accessibility options.

Table 10.

Accessibility of Learning Materials

Items	Mean	Rank	Interpretation
1. Provides learning materials/modules that are accessible to the students.	4.4	2.5	High Extent
2. Delivers the module/learning resources on time.	4.35	5	High Extent
3. Uploads e-resources to be use by all students.	4.4	4	High Extent
4. Sends learning materials that are delivered via social flatforms.	4.4	2.5	High Extent
5. Imparts knowledge to the students through online discussion.	5	1	Very High Extent
Overall Mean	4.51		Very High Extent

Learning Environment

Garnering the overall mean score of 4.21 connoted a positive learning environment during online class. The study showed that despite the limited internet access, the teachers are considerate not only of local learning materials but also the learning environment of their students. Moreover, the teachers integrate appropriate teaching strategies in online learning, taking into consideration the students' accessibility to the lesson. Mutizwa, et al (2023) discussed the rise in the usage of smart learning environments during the pandemic. It highlighted how educators and students quickly adapted to the shift towards using technology for teaching and learning purposes. Thus, (Abdullah, 2022), emphasized the need for effective instructional design and support to ensure successful virtual learning experiences.

Table 11.

Learning Environment

Items	Mean	Rank	Interpretation
1. Checks learning place whether it is conducive and free from distraction.	4.15	3	High Extent
2. Considers availability of local learning materials.	4.25	1.5	High Extent
3. Accesses the information and learning due to strong connectivity.	4.1	5	High Extent
4. Creates positive atmosphere between students and teacher during class discussion.	4.25	1.5	High Extent
5. Provides appropriate online learning strategies and approach to the students.	4.3	4	High Extent
Overall Mean	4.21		High Extent

Learning Support

Having the overall computed mean of 4.11 described as high extent revealed that learning support in terms of moral aspect is highly evident amidst the pandemic. The teachers were together in helping each other in their online lessons; teachers who struggle sending and retrieving outputs are assisted by their co-teachers who know more about ICT manipulation. However, despite the demands in learning, it is hard to keep up with the mainstream due to administrative limitations especially in financial aspects which most institutions suffered the consequences. The study indicated that although the teachers received assistance, still, lack of administrative support specifically load allowance and supplies. The study affirmed by Maatuk, et al. (2022), revealed that one of the disadvantages e-learning to become more effective, it really needs financial support compared to traditional way of educational setting. However, Hue et al (2022) pointed out that support may not be the most contributing factor to address the actual problem-solving, it is considered to necessitate the human well-being of an individual.

Table 12.

Learning Support

Items	Mean	Rank	Interpretation
Requests for assistance in addressing their needs towards getting and sending the lessons.	4.15	4	High Extent
Solicits advice when faculty/students find difficulty towards teaching learning process.	4.35	1.5	High Extent
Seeks helps to their peers to assist them in preparing and sending the modules or lessons.	4.3	3	High Extent
Provides administrative supports such as load allowance, supplies and the like.	3.4	5	Moderate Extent
Shows concerns on ones feeling and attitude during online discussion.	4.35	1.5	High Extent
Overall Mean	4.11		High Extent

Submission and Uploading of Outputs

Summing up the overall computed mean score of 4.33 indicated that teachers were prompt in sending modules. Teachers, despite the underlying struggles with technicality and connectivity, were still able to provide efficient learning materials to the students. The result showed that teachers in MinSU were considerate in terms of outputs submission. This is supported by the study conducted by Gopal, et al (2021) that focused on the satisfaction and performance of students in online classes. It examined the factors that affect students' satisfaction with online learning. Although the study does not explicitly delve into the submission of outputs, it provides insights into the overall experience of students during online classes. This suggests that students' satisfaction and performance can be influenced by factors such as instructor presence, course content, and learning resources. If these aspects are

effectively managed, it is likely that the submission of outputs and assessment can also be appropriately handled in the online learning environment.

Table 13.
Submission of Outputs

Items	Mean	Rank	Interpretation
1. Conducts orientation on the use of different platforms.	4.6	1	High Extent
2. Uploads the modules on time.	4.25	4	High Extent
3. Considers the right pacing of accomplishing modules.	4.25	4	High Extent
4. Sends the complete parts of the modules.	4.25	4	High Extent
5. Considers the uncertainty of sending and turning back of the modules/ outputs.	4.3	2	High Extent
Overall Mean	4.33		High Extent

Challenges Experienced by the CCS And CTE Faculty in the Teaching-Learning Process

The overall computed mean score of 4.30 revealed that the challenges experienced by the faculty in terms of learning materials, accessibility of learning materials, learning environment, learning support, submission and uploading of outputs are at a high extent. The results indicated that the faculty are highly prepared for the new normal of teaching-learning process. It can be inferred that there were persistent challenges along the way, but the faculty integrated dynamic solutions in aiding the online teaching-learning process.

The faculty, although struggling to cope with the new learning process, assured that there were sufficient learning materials for the students to utilize, used ICT to replenish copies of learning resources for the students, and encouraged a healthy and student-centered learning environment. Moreover, the results implied that the institution response rate for the new normal learning is high, thus, they have shifted through modalities in a reasonable process. According to Center for Teaching Excellence (2020), the teachers have experienced difficulties in the teaching-learning process during the pandemic. Distance learning, despite high coping mechanism of the teachers, is still a laborious responsibility because workloads significantly increased, distractions are highly present in the learning environment, and technology are not always reliable, convenient, and accessible.

Table 14.
Summary Results

Challenges Experienced by Faculty in the Teaching-Learning Process environment	Mean	Rank	Interpretation
2.1 Learning materials	4.32	3	High Extent
2. 2. Accessibility of learning materials	4.51	1	High Extent
2.3. Learning Environment	4.21	4	High Extent
2.4. Learning Support	4.11	5	High Extent
2.5 Submission and Uploading of Outputs	4.33	2	High Extent
Overall	4.30		High Extent

3. Relationship between the factors affecting the teaching- learning environment and the challenges experienced by the students.

As depicted on the table, there is no significant relationship between the factors affecting the teaching- learning environment in terms of internet connectivity in terms of status and quality and the challenges experienced by the students in terms of learning materials; accessibility of learning materials; learning environment; learning support; and submission of output/s. as evidenced by the computed r values of 0.010,0.097.-0.112, 0.097 0.063and 0.002, 0.044,0.043,0.000,0.051, respectively, thus, the null hypothesis is accepted. This implies that the internet connection has no effect on the challenges experienced by the students.

There is no significant relationship between the factors affecting the teaching- learning environment in terms device used in terms of gadget and apps used and the challenges experienced by the students as evidence by the computed r values of 0.032, -0.065, 0.087,0.014, and 0.126, 0.076,0.084, -0.049, 0.102, and 0.088 respectively, thus the null hypothesis is accepted. The results imply that the device used in terms of gadget has no effect to the challenges experienced by the students in terms to of learning materials; accessibility of learning materials; learning environment; learning support; but not in submission of outputs, this could be attributed to the fact that most of the students used smartphones in submitting their outputs.

A significant relationship was found between the factors affecting the teaching- learning environment in terms learning physical location and the challenges experienced by the students in terms as showed by the computed r values of 0.080, 0.110, -0.058,0.058, and 0.013 respectively, thus the null hypothesis is accepted. It implies that learning physical location has no effect on the challenges experienced by the students.

Predominantly, all indicators of the factors affecting the teaching learning environment have no direct effects to the challenges experienced by the students except in internet quality in terms of submission.

Table 15.

Relationship between the factors affecting the teaching- learning environment and the challenges experienced by the students.

Factors	**Challenges experienced by the students**									
	Learning Materials		Accessibility of Learning Materials		Learning Environment		Learning Support		Submission of Outputs	
	r-Value	R	r-value	R	r-value	R	r-value	R	r-value	R
Internet Connectivity										
Status	0.010	NS	0.097	NS	-0.112	NS	0.097	NS	0.063	NS
Quality	0.002	NS	0.044	NS	0.043	NS	0.000	NS	-0.051	NS
Device Used Gadgets	0.032	NS	-0.065	NS	0.087	NS	0.014	NS	0.126	S

Apps Used		0.076	NS	0.084	NS	-0.049	NS	0.102	NS	0.088	NS
Learning Location	**Physical**	-0.080	s NS	0.110	NS	-0.058	NS	0.058	NS	0.013	NS

df= 280 level of significance = 0.05 critical r-value = 0.117 S=Significant NS= Not Significant

Relationship between the factors affecting the teaching- learning environment and the challenges experienced by the faculty.

As shown from the results, there is no significant relationship between the factors affecting the teaching- learning environment in terms of internet connectivity in terms of status and quality and the challenges experienced by the faculty in terms of learning materials; accessibility of learning materials; and learning support; as evidenced by the computed r values of -0.212, 0.037 and -0.0321, status and -0.202, 0.056,0.237, and -0323 respectively thus the null hypothesis is accepted. On the other hand, a significant relationship was found in learning environment and submission of output/s. as shown by the computed r values of 0.835 and -0.438 respectively, thus the null hypothesis was rejected.

The results revealed that the internet connectivity of the faculty has no effect in learning materials; accessibility of learning materials; and learning support; for status and learning materials; accessibility of learning materials; and submission of outputs for gadgets, but not in learning environment and submission of output/while learning support for quality. This implies that the faculty have strong connection that's why they could receive then outputs submitted by their students although they lack learning support.

There is no significant relationship between the factors affecting the teaching-learning environment in terms of device used: gadget and apps used and the challenges experienced by the faculty in terms of learning materials; in learning environment, learning support; and submission, as evidenced by the computed r values of 0.038, ,0.227, -0.377,0.204, for gadgets, -0.166, 0.191,0.102,0.088 respectively, thus the null hypothesis was accepted. However, there was a significant relationship was found in accessibility of learning materials; for gadget and learning environment, for apps used, with r values of 0.513 and ,0. 438, thus the null hypothesis was rejected. The results showed that the device used by the faculty has no direct effect on learning materials; in learning environment, learning support; and submission, but not in accessibility of learning materials and learning environment.

As gleaned from the results, there is no significant relationship between the factors affecting the teaching- learning environment in terms learning physical location and the challenges experienced by the faculty across indicators except inn learning environment as showed by values of 0.058, 0.191, 0.438, -0....013, and -0.013, thus the null hypothesis was accepted. The results revealed that faculty learning location does not affect the challenges that they have experienced except with the learning environment. The results imply that the teachers learning environment contributed much on the teaching learning processes of the students, If the faculty have strong internet connection with appropriate learning resources, they would be able to impart more knowledge and information to their students. Selvaraj, et al (2021) suggested that web-based resources can effectively deliver the same quality of education as traditional in-person classes. It highlights that online education can achieve almost the same level of success in terms of teaching outcomes. This shows that students can still submit their outputs in online learning environments and receive proper evaluation and feedback.

Table 16.

Relationship between the factors affecting the teaching- learning environment and the challenges experienced by the faculty.

Factors	**Challenges experienced by the students**									
	Learning Materials		Accessibility of Learning Materials		Learning Environment		Learning Support		Submission of Outputs	
Internet Connectivity	r-Value	R	r-Value	R	r-value	R	r-value	R	r-value	R
Status	-0.212	NS	0.037	NS	0.835	S	-0.032	NS	-0.438	S
Quality	-0.202	NS	0.056	NS	0.237	NS	-0.383	S	-0.323	NS
Device Used	0.038	NS	0.513	S	0.227	NS	-0.377	NS	0.204	NS
Gadgets	-0.166	NS	0.191	NS	0.438	S	0.102	NS	0.088	NS
Apps Used										
Learning Physical Location	0.058	NS	0.191	NS	0.438	S	-0.013	NS	-0.013	NS

df= 18 , level of significance = 0.05, critical r-value = 0.378, S=Significant. NS= Not, ignificant

Conclusions and Recommendations

Based on the findings of the study, the students and the faculty have limited access using either smart phones or laptops via google meet and messenger in their respective homes. Likewise, students experienced challenges in accessing learning materials with sufficient

learning content while teachers found difficulty in learning supports. Moreover, those factors have no direct effect on the challenges experienced except for the submissions of outputs and learning environment both students and teachers in achieving quality learnings.

Given the findings and the conclusions, the administration may prioritize the budgets for upgrading learning resources, facilities, and establishment of learning hubs in a strategic locations and subscriptions of learning management system to support the faculty in creating effective teaching environment and further study maybe conducted to justify the claims.

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