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Challenges and Support Mechanisms of Pre-Service Teachers in Flexible Learning: The CBSUA Experience

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Abstract

This study explored the challenges and support mechanisms of pre-service teachers of Central Bicol State University of Agriculture, s/y 2022-2023. It has sample size of 342 after using Cohen's formula. From the sample size and using simple random technique, 99 respondents (29%) came from COE-Sipocot, 34 respondents (10%) came from COE-Pasacao, 133 respondents (39%) came from CDE-Pili, and 76 respondents (22%) came from COE-Calabanga, cut-across programs. The Convergent Mixed Method was employed in this study, a one-phase methodology that collects and analyzes quantitative and qualitative data before comparing the results to determine whether the data support or contradict one another. The quantitative non-experimental through the descriptive-correlational method was used to determine the challenges and coping mechanisms of the respondents in the new normal, correlate the two variables, while for the qualitative part, an interview was given to the participants and open-ended questions were raised to them, The study used a survey questionnaire as an instrument to gather the data covering the five constructs under the challenges and five constructs of coping mechanisms. Likert Scale was used to determine the frequency of the challenges and coping mechanisms. In analyzing the results, weighted mean and rank order is used to identify which challenges were greatly experienced and which coping mechanisms were greatly used. Pearson Product Moment Correlation (PPMC) was used to show the linear relationship between the two data sets and determine the strengths of the relationship The T-Test was used to decide whether to accept or reject the null hypothesis. The results revealed that challenges in Teacher-Student Interaction appeared to have the highest level of frequency (WM 2.87), interpreted as sometimes. At the same time, the most frequently used coping mechanism was the Personal Support Mechanism (WM 3.78), interpreted as often. The challenges experienced and the applied support mechanisms of pre-service teachers have a significant and moderately negative relationship. It implies that as the coping mechanisms of pre-service teachers increased, the challenges of the pre-service teachers decreased. A pre-internship intervention program was recommened to improve the social skills, technology integration skills, instructional practices, and personal well-being of the pre-service teachers in preparation for the real-world of teaching.

Keywords: *Challenges, Support Mechanisms, Flexible Learning, Pre-Service Teacher*

I.INTRODUCTION

The advent of the pandemic has undeniably affected almost all aspects of life, including education. It has been two years of isolation from traditional teaching-learning, and people are still adapting. Pokhrel & Chhetri (2021) stated that more than 94 percent of the world's student population had been impacted by the closure of

schools, institutions, and other learning facilities, resulting in various life changes. Several studies have been conducted to determine the problems caused by this pandemic in educational institutions and organizations. It is found that the break of face-to-face teacher-student interaction has harmed the knowledge or the learning experiences expected from our students. According to Chakraborty et al. (2021), it was tough to bring all of these academic activities online at the same time; and Delgado & Arellano (2021) stated teachers and students were looking for new ways to teach and learn at the start of the process because face-to-face instruction was no longer viable.

This dilemma among teachers and students was likewise a challenge for pre-service teachers. While searching for ways to adapt to online learning, they must also learn new teaching strategies and methods for virtually teaching their students. Commission on Higher Education (2020) describes flexible learning as a pedagogical approach allowing flexibility of time, place, and audience, including but not solely focused on the use of technology as it involves a combination of digital and non-digital technology. This has provided accessibility and convenience for students, but it has also challenged educators to innovate and improve their teaching methods to engage students in a virtual setting effectively. It is important for institutions to continuously evaluate and improve their online learning strategies to ensure quality education is still delivered despite the limitations brought about by the pandemic.

However, the study of Tanguihan (2021) explored the lived experiences of pre-service teachers in online practice teaching during the pandemic and discovered that the pre-service teachers lacked training in online strategies, had no actual classroom experience, were unable to apply the teaching strategies they learned, and the assessment results were difficult to measure. As a result, there is a need for technology training for virtual teaching before actual practice, as well as real-life experiences for assignments and projects to ensure work originality. Problems with mental health and well-being because of the lockdown, school closures, and the abrupt shift to an online format are also included in the issues still seeking proper assistance in the educational context (Lautenbach & Randell, 2020).

Moreover, a Phenomenological Study in the Philippines. Robosa, J., et al. (2021). Examined the lived experiences of public school teachers during the COVID19 pandemic. It found that most teachers were challenged by a lack of resources, their handling of students, and their submission and workloads. Additionally, the digital age limited their ability to provide an effective learning environment and communicate with students. Despite these challenges, teachers gained positive experiences such as passion, relationships, and fulfilment of their duty. Tanguihan (2021) stated that measures would be needed to strengthen education in the country to ensure that teachers are adequately prepared to take over a wide range of tasks and obligations. With this present situation, the researchers examined the pre-service teachers' challenges and coping mechanisms before their internship with the utmost interpretations.

The researcher believed that the shift in learning modalities, from the usual classroom practices to flexible learning, caused institutional challenges affecting pre-service teachers' learning. These present challenges are still new to them; thus, the researcher explored the challenges encountered and the support mechanisms provided by the institution to the pre-service teachers. The challenges and support mechanisms identified aim to help the pre-service teachers and the university in recalibrating priorities in response to the changing educational landscape.

II. REVIEW OF LITERATURE

A. Flexible Learning Modalities

In the Philippines, the Commission on Higher Education issued the Memorandum Order No. 04 series of 2020 or the Guidelines on the Implementation of Flexible Learning. Flexible learning is closely related to Blended Learning and Distributed Learning, and this describes the learning design perspective deeply rooted in the needs of students, with the main objective being to provide them with the most flexibility about the learning content, schedules, access, and learning styles as possible. A flexible learning design customizes learning environments to meet the needs of learners, using both technological and non-technological tools (Commission on Higher Education, 2020).

Flexible learning modalities have become increasingly important in higher education institutions in response to the COVID-19 pandemic (Aragon et al., 2020). These modalities allow students to learn from anywhere and at

any time, providing flexibility to accommodate various learning styles, preferences, and circumstances. The flexibility in learning modalities may enhance students' learning outcomes, satisfaction, and engagement (Aragon et al., 2020). The different flexible learning modalities universities and colleges adopt include blended learning, flipped learning, online learning, and hybrid learning (Al Lily et al., 2020; Aragon et al., 2020; Li et al., 2021).
However, with no one is ready for the concept of flexible learning, some issues and concerns need to be clarified in terms of delivery, the modification of learning outcomes as provided in the course pack, the training of teachers in making modules or lessons, availability of textbooks and journals, and as to the availability of technological tools like laptops and mobile phones. According to Barrera, Jaminal, and Arcilla (2020), since smartphones, laptops, and the internet are technical requirements for flexible learning, it is essential to establish the learning platform or the learning management system first. Thus, in the context of readiness of students in flexible learning, this learning platform should conform to mobile data as the source of internet connection, should have low usage of mobile data to lessen the students' expenses, and online class or use of modules or learning materials should also be an option for those students who do not have connectivity.
Blended learning is a combination of face-to-face and online learning. In a study by Salcedo et al. (2021), blended learning was found to be effective in enhancing students' academic performance and engagement, as well as their satisfaction with the learning experience. Flipped learning is an approach where students are introduced to new content before class and use class time for discussion and application. In a study by Zhang et al. (2021), flipped learning was found to be effective in improving students' academic performance, engagement, and satisfaction with the learning experience. Online learning is entirely online, and students can access course materials and interact with their instructors and peers through virtual platforms. A study by Al Lily et al. (2020) found that online learning was effective in enhancing students' engagement, satisfaction, and perceived learning outcomes. Hybrid learning is a combination of two or more flexible learning modalities (e.g., blended learning and online learning). In a study by Li et al. (2021), hybrid learning was found to be effective in improving students' academic performance, engagement, and satisfaction with the learning experience.

B. Identified Challenges Faced in Flexible Online Learning

As a response to the COVID-19 pandemic, distant learning has taken the role of temporary remote instruction. Flexible online learning gives students a lot more choice in terms of how and when they engage; nonetheless, students' capacity to manage their learning becomes crucial (Sun & Rueda, 2012). For other countries, the transition of the mode of learning was smooth, but for others, it was rough, those from underdeveloped nations with insufficient infrastructure, in particular(Pham & Nguyen, 2020; Simbulan, 2020). Several main problems have been arisen throughout the transition to a new learning environment, including policy, pedagogy, logistics, socioeconomic considerations, availability of technological devices, and psychosocial aspects (Donitsa-Schmidt & Ramot,2020; Khalil et al., 2020; Gonzalez et al., 2020). Though flexible online learning is an excellent platform, some issues occur that affect both students and teachers.

The pandemic harms students' behavioral and emotional functioning, notably focus and alleviating difficulties caused by seclusion, financial standing, health implications, and anxiety (Copeland et al., 2021). Also, concerns were expressed by students about learning and evaluation techniques and excessive task load, technical problems, and confinement (Fawaz et al., 2021).Moreover, the students noted specific difficulties they had when taking online programs. Anxiety, sadness, inadequate internet access, and an unpleasant home learning environment are all factors that are exacerbated when students are disadvantaged or from distant locations (Kapasia et al., 2020).

Additionally, other reported challenges include a lack of adequate equipment, limited studying space at home, student stress, and a lack of fieldwork and access to laboratories (Day et al., 2021, Tientcheu, 2021).Academically, while students may learn anything online, learning may be subpar, particularly in classes that need face-to-face interactions (Franchi, 2020). Learners in rural locations have significant hurdles in adjusting to modern lifestyles and learning, as seen by the extensive use of online learning management systems and low-technological applications (Dube, 2020). Because of a lack of infrastructure to connect to the internet, the learning management system, and low-technological applications,
many rural learners in South Africa are excluded from teaching and learning. They need extra training, such as

digital remediation programs, to use online collaborative tools (Welser et al., 2019), and are revealed to have lower self-assessment in online participatory skills.

A research discovered that students in flexible online learning might be lacking in opportunities to interact, receive feedback on their performance, and gain social support (Tuckman, 2007). In contrast, another study uncovered that internet-based settings could create a sense of isolation for students, making it more straightforward for them to attend or not to attend classes regularly (Cull,2010; Rost, 2019). These ideas demonstrated that students in online learning have anxiety, which resulted in a lack of involvement. Due to the absence of interaction during online lessons, students are easily distracted by cell phones, dogs, deliveries, and other activities other than the ongoing online class(Amadora, 2020). She further stressed that in the absence of face-to-face interaction, it is assumed that pupils will be disinterested in the online course. Internet connection is a common concern among instructors and students in rural areas. Since the Philippines remains one of Asia's slowest internet countries, Wi-Fi access is another problem. The country reported multiple students and instructors who need to climb mountains and trees to access the internet (Averia, 2020).

The Philippines' sluggish internet connection provided a significant barrier to students, particularly those from rural areas or remote places (Adonis, 2020). Instructors in the Philippines suspected that the number of school dropout cases during the academic year 2020-2021 is due to poor network connection. As such, the internet connection and their isolation have grown due to the lack of both. However, some students have adapted well, solved problems, searched for opportunities, and applied their newly acquired skills to meet their new needs. Regardless of the causes that have distanced them from traditional education—closure, technology advancements—they are most likely better prepared to deal with their new environment.

Furthermore, doing an online class in a rural setting has its own set of obstacles, and many students without smartphones or internet connectivity are left out(Hossain, 2020). To fill this need, some students have formed home study groups in which they share computers. Furthermore, instructors in the same village share phone numbers with the learners, and students visit their houses to seek help from their teachers (Hossain, 2020). Additionally, students in rural areas find it hard to access different online educational platforms (Macintyre &Macdonald, 2011). However, the study noted that the focus on attainability and network does not dim the individual's willingness to learn in flexible learning. Students also experienced a geographical issue (Fleming et al., 2020). Suryamanet al. (2020) studied how individuals learn throughout the pandemic at home. Their findings revealed that students encountered several challenges in a home earning setting, including a lack of technological expertise, expensive Internet costs, and restricted interaction/socialization amongst and among students.

III. METHODOLOGY

The Convergent Mixed Method was employed in this study, a one-phase methodology that collects and analyzes quantitative and qualitative data before comparing the results to determine whether the data support or contradict one another. Hence, the inclusion of both quantitative and qualitative research methods. To improve the research's impartiality and trustworthiness and to provide a review trail for moral and methodological judgments, the researchers employed reflective journaling to record information from the interview.

For the quantitative part, the study used the quantitative non-experimental descriptive-correlational method. The descriptive method described the challenges and support mechanisms for flexible learning experienced by the pre-service teachers. In contrast, the correlational method described the significant relationship between those identified challenges and support mechanisms. Meanwhile, for the qualitative part, an interview was given to the participants and open-ended questions were raised to them. In treating the qualitative data, the primary approach of coding, comprehending, synthesizing, theorizing, and re-contextualizing was used to identify the recurring themes.

This study was conducted at the Central Bicol State University of Agriculture (CBSUA). The locale was chosen to understand further the challenges and support mechanisms experienced by the respondents during flexible learning and for smooth access in gathering information among the respondents. The study gathered details on the CBSUA campus by giving a set of questionnaires to the target respondents, the pre-service teachers. The

respondents were the pre-service teachers of the said University, with a sample size of 342 after using Cohen's formula. From the sample size and using simple random technique, 99 respondents (29%) came from COE-Sipocot, 34 respondents (10%) came from COE-Pasacao, 133 respondents (39%) came from CDE-Pili, and 76 respondents (22%) came from COE-Calabanga, cut-across programs.

The researchers used a survey questionnaire to gather data on the selected participants. The survey questionnaire was composed of two parts. The first part was the challenges experienced by the respondents, which were composed of four subthemes: a) Delivery and Management of Instruction; b) Teacher-Student Interaction; c) Technology Integration; and d) Personal Well-being. The second part was the coping mechanisms, composed of four subthemes: a) Instructional Practices; b) Interactional Learning; c) Technology Utilization; and d) Personal Support Mechanisms. The researcher used a Likert scale with five indicators: never, seldom, sometimes, frequently, and always, in the development of the questionnaire that was sent to the participants through Google Forms.

The researcher surveyed to identify the challenges and coping mechanisms of the pre-service teachers. The researchers formulated a survey questionnaire based on the statement of the problem in the study and evaluated its alignment and accuracy in the study. The questionnaires were generated through Google Forms and sent via Messenger and Email. Likert scale was administered, and the data gathered from the respondents were subjected to presentation, analysis, and interpretation.

In getting an accurate solution to the problems, weighted mean, which was used to calculate the average value of the gathered data, and ranking technique which transformed the data by replacing the numerical and ordinal values with their rank to analyze the challenges and support mechanisms of the respondents were employed. Meanwhile, the researchers used Pearson's Product Moment Correlation (PPMC), a measurement to show the linear relationship between the two sets of data and determine the relationship's strengths, and the T-Test to decide whether to accept or reject the null hypothesis.

IV. RESULTS AND DISCUSSION

This part of the paper discusses the findings, analysis, and interpretation of data. The data were gathered using survey questionnaires through Google Forms, and weighted mean, PPMC, and T-test were used to calculate the results. Tabular and textual presentations were both provided for a clear discussion.

1. Challenges Experienced by the Respondents in Flexible Learning

In the new normal modality of teaching and learning, challenges are inevitable and, in this study, challenges experienced by the pre-service teachers were identified according to a) Delivery and Management of Instruction; b) Teacher-Student Interaction; c) Technology Integration; and d) Personal Well-being.

A. Delivery and Management of Instruction

Challenges such as power disruptions, distractions, and instructional material integrations were some experiences in the delivery and management of instruction. As shown in Table 1, there is the highest rank of external disturbances during synchronous classes (WM 3.22), interpreted as sometimes. The lowest rank was that they could not grasp the lesson adequately because of the lack of online examples and visual presentations (WM 2.47), interpreted as seldom.

Table 1. Challenges in the Delivery and Management of Instruction

Delivery and Management of Instruction	Weighted Mean (WM)	Rank	Interpretation
1. There are power disruptions and virtual meeting delays during my online classes	2.81	2	Sometimes
2. There are external disturbances during synchronous class	3.22	1	Sometimes
3. I struggle to navigate the learning materials during online classes	2.67	3	Sometimes

4. I struggle in paperworks and related activities work because I cannot find the proper space to save them.	2.51	4	Seldom
5. I cannot grasp the lesson adequately because of the lack of online examples and visual presentations.	2.47	5	Seldom
Average Weighted Mean (AWM)	2.73	---	Sometimes

Legend:
4.20 – 5.00 – Always
3. 40 – 4.19 – Frequently
2.60 – 3.39 - Sometimes
1.80 – 2.59 - Seldom
1.00 – 1.79 - Never

These findings signified that the respondents had difficulties in the delivery and management of online learning as they were disturbed by external factors and because of frequent power disruptions in their home and work environments. This result was supported by the study of Peñeda et al. (2021) in their themes of strenuous virtual classroom management and virtual class distractions that the respondents experienced unnecessary noise during online teaching, lack of quite a place for online teaching thus, stressing the pre-service teacher's success, as they cannot focus on their teaching assignments. Moreover, their study also identified power disruptions, difficulties disciplining the students online, and not checking attendance with their respondents. Similarly, the Study of Jamon et al. (2021) also revealed the challenge in monitoring and assessing students' performance among the teacher respondents and even checking their outputs because they lack communication with their students and hesitation because of the COVID virus.

B. Teacher-Student Interaction

As gleaned in Table 2, it uncovered that the pre-service teachers had higher rates of difficulty with the students having hesitation in sharing their ideas and questions during synchronous class (WM 3.08). Meanwhile, the lowest rate experienced is because of the reason that they are not comfortable with using the online software (WM 2.71). All are interpreted as sometimes.

Table 2. Challenges experienced by the respondents in the new normal in terms of Teacher-Student Interaction

Teacher-Student Interaction	Weighted Mean (WM)	Rank	Interpretation
1. I find it difficult to follow my teacher's instructions due to some delays and misconception	2.73	4	Sometimes
2. I am having a hard time familiarizing my teachers because of their different account profiles and display pictures	2.90	3	Sometimes
3. I have hesitation to share my ideas and questions during our synchronous class in this new set-up.	3.08	1	Sometimes
4. I struggle because I am not comfortable with using the online softwares.	2.71	5	Sometimes
5. I have difficulty cooperating well during the class discussion because of the poor internet connection.	2.91	2	Sometimes
Average Weighted Mean (AWM)	2.87	---	Sometimes

Legend:
4.20 – 5.00 – Always
3. 40 – 4.19 – Frequently
2.60 – 3.39 - Sometimes
1.80 – 2.59 - Seldom
1.00 – 1.79 - Never

These findings implied that the respondents' interaction with their teachers during synchronous classes was more challenging than in asynchronous classes because of the external interruptions and absence of physical interaction. The study of Laguitao et al. (2021) supported these findings in their discussion of the need for a proper setup. It was stated that the pre-service teachers need to make their classroom in the comfort of their home to make the students feel like they are in traditional learning. The transcript obtained from the interview showed communication between the student and the teacher. Their explanation was superficial, and they could still do better, but they were confronted with a connection with their tutees. The present findings of this study revealed the students' hesitation in the interaction in online meetings that may have resulted from a lack of conduciveness in the online set-up.

The study of Ugalingan et al. (2021) also identified the students' lack of participation due to the lack of familiarity among participants, which was quickly established through face-to-face interaction. As reported by the pre-service respondents, it was challenging to be in a session wherein they were unfamiliar with the teacher's aura. Since their cameras were off most of the time, it was difficult to determine their reactions and attitude toward the instruction.

C. Technology Integration

Table 3 shows that the respondents had higher experiences with an unstable internet connection (WM 3.18), interpreted as sometimes. On the contrary, the lowest was struggles in online classes because they do not have enough gadgets to use (WM 2.47), interpreted as seldom.

Table 3. Challenges in Technology Integration

Technology Integration	Weighted Mean (WM)	Rank	Interpretation
1. I experience an unstable internet connection	3.18	1	Sometimes
2. I cannot integrate the technology properly into my online class	2.56	4	Seldom
3. I struggle in my online classes because I do not have enough gadgets to use	2.47	5	Seldom
4. I have a hard time managing online learning platforms	2.64	3	Sometimes
5. I am too dependent on technology and online platforms to access the lessons, thus, not finding other resources.	2.88	2	Sometimes
Average Weighted Mean (AWM)	2.74	---	Sometimes

Legend:
4.20 – 5.00 – Always
3. 40 – 4.19 – Frequently
2.60 – 3.39 - Sometimes
1.80 – 2.59 - Seldom
1.00 – 1.79 - Never

The findings revealed that the respondents, although in the range of sometimes, had high experiences of having

an unstable internet connection. Some are perceived to be in areas with low reception and far from the areas with stable internet connection. Indeed, it was proven by the study of Laguitao et al. (2021) in their gathered data that internet connection is a significant problem. It implied that the pre-service teachers were dependent on technology and the internet. Still, in the locale of the study, they were confronted with having an unstable internet connection, and others even had no connection at all, which was why they needed to go to other places for their online classes. Similarly, Ugalingan et al. (2021) implied the technical difficulties of the pre-service teachers in their online tutoring. PSTs narrated their experience of unstable Wi-Fi connection and even provided a concrete picture of the country's internet services that made online classes difficult. As the ranked one in the present study's result in technology integration, the unstable internet connection is one of the primary concerns of the teachers and students in this new normal. De Villa et al. (2020) study also supports this finding, as their participants experienced unstable internet connection that impeded their duties and work. Because of unstable internet connection, other difficulties, such as the delivery of instruction and the interaction between the teacher and learners, are also affected. It was also reported that the Philippines' fixed average speed as of the early quarter of 2020 is only 26.18 Mbps, which ranks the country 114th in the world mobile speeds (Ookla, LLC, 2020).

D. Personal Well-being

The way the pre-service teachers experience stress, anxiety, and other challenges affects their well-being. Table 4 presents the challenges experienced by the respondents in the new normal regarding their well-being. The highest rate was that they spend too much time preparing online lessons (WM 3.40), interpreted as frequently. The lowest was when they felt pressure using the new technologies in this new normal (WM 2.61), interpreted as sometimes.

Table 4. Challenges Personal Well-being

Personal Well-being	Weighted Mean (WM)	Rank	Interpretation
1. I feel uncomfortable engaging in the online set-up of teaching	2.62	4	Sometimes
2. I feel pressure using the new technologies in this new normal	2.61	5	Sometimes
3. I spend too much time preparing online lessons	3.40	1	Frequently
4. I struggle when speaking about online discussion	2.76	2	Sometimes
5. I feel stressed because I cannot afford loads and gadgets for my online class	2.70	3	Sometimes
Average Weighted Mean (AWM)	2.82	---	Sometimes

Legend:

4.20 – 5.00 – Always
3. 40 – 4.19 – Frequently
2.60 – 3.39 - Sometimes
1.80 – 2.59 - Seldom
1.00 – 1.79 - Never

These findings revealed that it was a challenge for the respondents to spend too much time preparing their tasks and online learning materials that may interfere with their sleeping routine and other activities; thus, they also experienced having difficulties speaking in their online classes, feeling stress because of not affording loads and gadgets, uncomfortable in the new set-up, and feeling pressure in using the new technologies on their online classes.

The study of Ugalingan et al. (2021) also had the results of a lack of self-confidence in teaching that may be related to the difficulty in speaking towards discussion as the pre-service teachers it implies that PSTs lack gaining relevant experience in developing content knowledge and pedagogical skills in handling class. Also, it was stated

that enough preparation should occur before conducting online discussions to prepare for any possible questions from the students. Additionally, the study of Robosa et al. (2021) on the life experiences of in-service teachers also discussed the challenges among them as the teachers are confronted with different such as checking the submitted outputs, papers work, and other workloads that became a problem for them as it contributes to stress and burnout.

Table 5. Summary of the Challenges experienced by the respondents in the new normal

	Weighted Mean (WM)	Rank	Interpretation
Teacher-Student Interaction	2.87	1	Sometimes
Technology Integration	2.74	3	Sometimes
Delivery and Management of Instruction	2.73	4	Sometimes
Personal Well-being	2.82	2	Sometimes
Average	2.76	---	Sometimes

Table 5 presents the summary of the challenges experienced by the respondents in the new normal. The highest challenge was the teacher-student interaction with WM 2.87, followed by personal well-being with WM 2.82. The three remaining domains were technology integration with WM 2.74, delivery and management of instruction with WM 2.73. All domains had an interpretation of sometimes.

The findings imply that the respondents have the highest frequency of challenges in terms of Teacher-student interaction, which may reflect the absence of physical interaction and the disturbances during their synchronous and asynchronous classes. Meanwhile, their pedagogical knowledge was being supported. But then, the challenges experienced were interpreted as sometimes that may also imply that they were adapting to the new normal set-up while education occurs in the pandemic. The study by Peñeda et al. (2021) as the lack of in-person interaction and the problem of assessing learners' progress are causes of other challenges, such as hesitation towards online discussions, the unfamiliarity among teachers and students, and other difficulties. Laguitao et al. (2021) also stated that pre-service teachers need a proper setup to conduct their pandemic student teaching. For them, learning is still best when it is conducted in a formal setting.

Support Mechanisms of the Respondents from the Challenges they Encountered in the New Normal

The shift in the mode of learning from face-to-face to online has created various challenges and so as coping mechanisms. In this section, the researcher discussed the different support mechanisms of pre-service teachers from the challenges they encountered in flexible learning.

a) Instructional Practices; b) Interactional Learning; c) Technology Utilization; and d) Personal Support Mechanisms.

Instructional Practices Support Mechanisms

Table 6 presents the results of the support mechanisms of the respondents from the challenges they encountered in the New Normal.

Table 6. Support mechanisms in terms of Instructional Practices

Instructional Practices Support Mechanisms	Weighted Mean (WM)	Rank	Interpretation
1. The teacher makes and provides video lectures that help understand the topic.	4.20	2	Always
2. There is a conducive place in the University where I can have synchronous and asynchronous classes.	3.90	5	Often

3. The teacher provides orientation regarding the use of the online platforms and softwares in the class.	4.01	4	Often
4. There is a provision of free and accessible internet services provided by the University that aids my online classes.	4.24	1	Always
5. The teacher provides useful links and resources to support independent learning.	4.10	3	Often
Average Weighted Mean (AWM)	3.49	---	Often

Legend:
4.20 – 5.00 – Always
3. 40 – 4.19 – Often
2.60 – 3.39 - Sometimes
1.80 – 2.59 - Rarely
1.00 – 1.79 - Never

It was revealed that the pre-service teachers were able to get a provision of free and accessible internet services provided by the University that aid their online classes (WM 4.24; Always), their teacher makes and provides video lectures that help in understanding the topic (WM 4.20; Always), the teacher provides useful links and resources to support independent learning (WM 4.10; Often), the teacher provides orientation regarding the use of the online platforms and softwares in the class (WM 4.01; Often), and there is a conducive place in the University where I can have synchronous and asynchronous classes (WM 3.90; Often). The average weighted mean got 3.49 interpreted as Often.

The results imply that a significant aspect of transitioning to online learning is the access to reliable internet services that facilitate online classes. The provision of free and accessible internet services by the university and its impact on pre-service teachers, which is supported by a high weighted mean (WM 4.24; Always) indicate a strong agreement among participants regarding the usefulness of these services. This was supported by the answer of a BSEd 4-English major who said:

Participant A

"The transition to online learning has become increasingly important, particularly for us, pre-service teachers who are now preparing for our roles in the educational system once we go out for our internship. Our ability to participate in virtual classrooms, access educational resources, engage in collaborative projects, and communicate effectively with instructors hinges on reliable internet connectivity. The provision of free and accessible internet services allows us to focus on our learning without the added stress of financial or technical barriers."

The findings corroborate with the study of Velasco (2023) which emphasized that effective support mechanisms in instructional practices are fundamental for fostering an engaging, inclusive, and effective learning environment. By integrating these mechanisms, educators can better meet the diverse needs of their students, leading to improved outcomes and a more enriching educational experience. It was also supported by Fairman et al. (2022) who pointed out that discussions surrounding these support mechanisms should continue to evolve, incorporating feedback from educators, students, and the broader community to adapt to the changing landscape of education.

Interactional Learning Support Mechanisms

Studies showed that innovative approaches and technologies can further strengthen interactional learning support. In the present study, the pre-service teachers deal with people in both online and face-to-face environments; thus, exploring how they implement interaction with their teachers is an important aspect that needs to be analyzed. Presented in Table 9 are the interactional learning support mechanisms of the respondents from the challenges

they encountered in the New Normal.

Table 9. Support Mechanisms in terms of Interactional Learning

International Learning Support Mechanism	Weighted Mean (WM)	Rank	Interpretation
1. The integration of technology in our online learning environment facilitates interaction through virtual discussions, forums, and real-time collaboration tools	4.01	1	Often
2. Our instructors provide timely and constructive feedback that keeps us motivated in our online tasks.	3.70	3	Often
3. Our teacher establishes emotional and social presence in online and face-to-face learning environments that help us be engaged in the lesson and to promote interaction.	3.65	4.5	Often
4. Our instructors create a supportive online learning environment that encourages us to engage with each other and participate actively.	3.65	4.5	Often
5. Online collaborative learning engagement was part of our activities that encouraged us to work together to solve problems or complete projects.	3.74	2	Often
Average Weighted Mean (AWM)	3.75	---	Often

Legend:

4.20 – 5.00 – Always
3. 40 – 4.19 – Often
2.60 – 3.39 - Sometimes
1.80 – 2.59 - Rarely
1.00 – 1.79 - Never

It was revealed that the integration of technology in the online learning environment facilitates interaction (WM 4.01; Often), an online collaborative learning engagement was part of the activities that encouraged learners to work together to solve problems or complete projects. (WM 3.74; Often), the instructors provide timely and constructive feedback that keeps learners motivated in their online tasks (WM 3.70; Often), the teacher establishes emotional and social presence in online and face-to-face learning environments that help learners be engaged in the lesson and to promote interaction (WM 3.65; Often), and the instructors create a supportive online learning environment that encourages learners to engage with each other and participate actively (WM 3.65; Often). The average weighted mean was 3.78 interpreted as Often.

The results imply that the interactional learning support mechanism that Interactive and collaborative technologies can increase student participation and motivation. It supports varied learning styles and needs through customizable learning experiences. Moreover, online platforms can break down geographical barriers and allow diverse voices to contribute, thus fostering inclusivity. This is particularly beneficial for students who may feel intimidated in face-to-face interactions. This was supported by the answer of Student B, from BSEd Science who said:

Student B.

"I can express myself in online discussion more often than in face-to-face. There are Science activities designed to pose questions that require critical thinking, analysis, and synthesis of ideas, which might sound too

intimidating in a face-to-face set-up."

Additionally, Student C of the same major pointed:

"Through online collaboration, it helps us to be more creative in our presentation and outputs. Our ability to engage in discussions and collaboration at any time allows us to manage our time and be more prepared with the things that must be submitted to our professors."

The findings coalesce with that of Abuhassna et al. (2020) herein it was found that technology in the online learning environment enhances interaction by providing various tools and platforms that facilitate communication and collaboration among learners. Features such as discussion forums, video conferencing, and collaborative document editing enable students to engage actively with each other. Rajaram (2021) further explained that in online collaborative learning engagements, learners can work together in real-time to solve problems or complete projects, fostering teamwork and critical thinking. This interaction not only enriches the learning experience but also builds a sense of community among participants, which is essential for effective online education.

Meanwhile, it is interesting to note that the teacher establishes emotional and social presence in online and face-to-face learning environments that help learners be engaged in the lesson and to promote interaction (WM 3.65; Often), and the instructors create a supportive online learning environment that encourages learners to engage with each other and participate actively (WM 3.65; Often) both have the lowest weighted mean. It implies that the pre-service teachers find it difficult to establish emotional and social presence in online learning environments.

In the study of Gupta (2024), she mentioned that these challenges stem from physical distance, lack of non-verbal cues, and the impersonal nature of digital communication. These barriers can lead to feelings of isolation among learners, making it harder to build relationships and foster engagement. Additionally, Gillick, M., and Magoulias (2020) mentioned that competition for attention with various online distractions can detract from meaningful interaction. Without a strong emotional and social presence, learners may feel disconnected, which can ultimately hinder collaboration, motivation, and overall learning outcomes.

Support Mechanisms in terms of Technology Utilization

Support mechanisms for technology utilization are critical for enhancing productivity, innovation, and the overall effectiveness of technology adoption in the educational system. Research findings in this area highlight the following results.

Table 10. Support Mechanisms in terms of Technology Utilization

Technology Utilization Support Mechanisms	Weighted Mean (WM)	Rank	Interpretation
1. I go to places with more stable internet connection	4.16	1	Often
2. I ask help from colleagues in facilitating online teaching platforms	3.45	4	Often
3. I explore the applications and other platforms on how to utilize them	4.10	2	Often
4. I go to the internet shop to gather lessons or formulate instructional materials	2.67	5	Sometimes
5. I make sure that I have a backup phone and power bank in case of unexpected power interruption or technical issues	3.96	3	Often
Average Weighted Mean (AWM)	3.67	---	Often

Legend:

4.20 – 5.00 – Always
3. 40 – 4.19 – Often
2.60 – 3.39 - Sometimes
1.80 – 2.59 - Rarely
1.00 – 1.79 - Never

As gleaned on Table 10, it showed that for the support mechanism in technology utilization, the learners go to places with more stable internet connection during online discussion (WM 4.16. Often), explore the applications and other platforms on how to utilize them (WM 4.10; Often), make sure that they have a backup phone and power bank in case of unexpected power interruption or technical issues (WM 3.96; often), ask help from colleagues in facilitating online teaching platforms (WM 3.45; Often), and go to the internet shop to gather lessons or formulate instructional materials (WM 2.67; Sometimes). The average weighted mean was 3.67 interpreted as Often.

The results imply that the technology utilization support mechanism that integrates technology in online learning environments can significantly impact the educational landscape. Particularly, a dependable internet connection is foundational for effective and equitable online education, enabling both educators and learners to maximize the benefits of digital learning environments. Reliable internet ensures that all students have equal access to learning materials, resources, and online platforms, minimizing the digital divide. Such findings is corroborated by the answer of Student D, from BEEd 4th year:

Student D

"A stable connection in very important in doing our online classes because real-time interaction through video conferencing and discussions can only be achieved if there is a strong internet connectivity. Interruptions due to poor connectivity can hinder the flow of lessons and lead to gaps in our understanding of the lesson, affecting our overall learning experience."

The study of Ali (2020) highlighted the importance of strong internet connectivity as it is crucial in promoting an effective online learning environment that can dramatically enhance educational effectiveness, efficiency, and accessibility. He also emphasized that educators and institutions need to embrace and invest in these technologies, paving the way for a more inclusive, engaging, and personalized learning experience that meets the needs of a diverse student population in an increasingly digital world.

Ancho and Arrieta (2021) stated that teachers in Philippine public schools could recover and adapt to the changes imposed by the new normal by being technologically literate 21st-century teachers. They could also embrace opportunities by using online and offline platforms, applications, and software as support. Contradictorily, García-Alberti et al. (2021), on the part of pre-service teachers' experiences, found that they lacked training in online strategies, could not apply the teaching strategies they learned, and the assessment results were difficult to measure. However, despite the discrepancy found in the study of Ancho and Arrieta (2021) and García-Alberti et al. (2021), both had the same conclusion, which is to have further training for the in-service and pre-service teachers in utilizing technology. As what was observed from Table 9, pre-service teachers in CBSUA often utilize online applications for their learning experience. Since the pandemic, technology has become one of the necessary things they need to have to survive in their course.

Personal Support Mechanisms

Many educational institutions shifted to online learning, highlighting the importance of personal support mechanisms for students. The personal support mechanisms are how the students help themselves to lessen the stress in online classes and anxiety in the new normal set-up. This survey aims to identify which support systems are most effective in aiding students' learning experiences in an online environment. Data shown in Table 11 are the results of the respondents' answers to their personal support mechanisms .

Table 11. Personal Support Mechanisms

Personal Support Mechanisms	Weighted Mean (WM)	Rank	Interpretation
1. I assign my working time to prepare online lessons to avoid affecting my other routines.	3.85	3	Often
2. I practice my speaking skills by recording demonstration videos	3.75	4	Often
3. I find the source of income for my online instructional materials and other necessities.	3.24	5	Sometimes
4. I practice using the new technologies to help me feel comfortable	4.02	1	Often
5. I practice my online teaching skills by participating in webinars and other online spaces	3.90	2	Often
Average Weighted Mean (AWM)	3.78	---	Often

Legend:

4.20 – 5.00 – Always
3. 40 – 4.19 – Often
2.60 – 3.39 - Sometimes
1.80 – 2.59 - Rarely
1.00 – 1.79 - Never

As gleaned on Table 11 shows that for the personal support mechanism, students practice using the new technologies to help them feel comfortable (WM 4.02, Often), they practice their online teaching skills by participating in webinars and other online spaces (WM 3.90; Often), they assign their working time to prepare online lessons to avoid affecting their other routines (WM 3.85; Often), they practice their speaking skills by recording demonstration videos (WM 3.75; Often), and they find the source of income for their online instructional materials and other necessities (WM 3.24; Sometimes). The average weighted mean was 3.78 interpreted as Often.

The results imply that personal support mechanisms in online learning are essential for enhancing the learning experience and addressing the unique challenges faced by learners in a virtual environment. Jamon et al. 2021 on the part of public school teachers in dealing with the new normal, stated that they could translate those weaknesses and threats into strengths and opportunities. Such strengths include technologically literate 21st-century teachers; opportunities include online and offline platforms, applications, and software as support. In the present study, pre-service teachers managed to use new technologies to become comfortable using them. Due to the stop of face-to-face because of the pandemic, online classes have solved the problem. Looking into the bright side of the situation, with online classes, pre-service teachers become more particular about utilizing online teaching tools. It is good because it made them manifest and nurture their 21st-century skills as learners that will soon be teachers.

In terms of speaking practice, according to Bárkányi (2021), speaking anxiety can be reduced by exposing oneself to speaking engagements, preparation, and believing in oneself. In the present study, the pre-service teachers could practice speaking skills by recording demonstration videos. Özdemir and Dilekmen (2024) suggest strengthening emotional intelligence among pre-service teachers. These EIs include self-awareness, self-control, adaptability, and general mood. These factors may help the pre-service teachers in improving their teaching practice. If they believe in their selves and have confidence in teaching their students, they can overcome those challenges positively.

Table 12. Summary of the Support Mechanisms of the Respondents

	Average Weighted Mean (AWM)	Rank	Interpretation
Instructional Learning Support Mechanisms	3.49	4	Often

Interactional Learning Support Mechanism	3.75	2	Often
Technology Utilization Support Mechanism	3.67	3	Often
Personal Support Mechanism	3.78	1	Often
Average	3.67	---	Often

Table 12 shows the summary of the support mechanisms of the respondents in the new normal. The highest support mechanism was the personal support mechanism (WM 3.78; Often), followed by the interactional support practices (WM 3.75; Often), followed by the technology utilization support mechanism (WM 3.67; Often), while the lowest is instructional learning support mechanism (WM 3.49; Often) All domains had an average weighted mean of 3.67 interpreted as Often. The results imply that personal support mechanisms were the most used support mechanism of the preservice teachers in the new normal. It entails that during the pandemic, help support was still the number one needed by the students; hence, helping them set and track personal and academic goals are salient factor in fostering motivation and resilience. The other support mechanisms, such as instructional, interactional, and technology utilization, were at the intermediate level only. Nonetheless, these coping mechanisms are all interpreted often, and all play an important part in the lives of pre-service teachers and the present study.

Relationship between the Challenges and Support Mechanisms of the Respondents in Flexible Learning

The table below presents the relationship between the respondents' challenges in the new normal and the coping mechanisms. Pearson Product Moment Correlation (PPMC) and T-Test with a five percent significance level were used to determine the significant relationship between those challenges and support mechanisms.
Table 13 revealed that the critical value of ± 1.976 at a 5% level of significance was greater than the computed value. a) Delivery and Management of Instruction and Instructional Practices Support Mechanism; b) Teacher-Student Interaction and Interactional Learning Support Mechanism; c) Technology Integration Technology Utilization Support Mechanism; and d) Personal Well-being and Personal Support Mechanism resulted in rejecting the hypothesis of this study. The r-value was all negative, with the interpretation of a moderately negative correlation. The decision is to reject the hypotheses, which means that there is significance in all sources of relationships. It implied that the challenges experienced by the pre-service teachers in the new normal have a significant relationship to their support mechanisms.

Table 13. Relationship between the challenges and coping mechanisms of the respondents.

Source of Relationships	r-value	Interpretation	Test-Value	Critical Value	Decision	Interpre-tation
Delivery and Management of Instruction and Instructional Practices Support Mechanism	-0.32	*Moderately Negative Correlation*	-3.94	±1.976	Reject H_o	Significant
Teacher-Student Interaction and Interactional Learning Support Mechanism	-0.28	*Moderately Negative Correlation*	-3.37	±1.976	Reject H_o	Significant
Technology Integration Technology Utilization Support Mechanism	-0.26	*Moderately Negative Correlation*	-3.13	±1.976	Reject H_o	Significant
Personal Well-being and Personal Support Mechanism	-0.44	*Moderately Negative Correlation*	-5.58	±1.976	Reject H_o	Significant

Legend:

Numerical scale	***Interpretation***
1.0	*Perfect Positive Correlation*
0.76- 0.99	*Very High Positive*
0.50- 0.75	*High Positive Correlation*
0.25- 0.49	*Moderately Positive Correlation*
0.01- 0.24	*Very Small Positive Correlation*
0	*No Correlation*
-0.01 - -0.24	*Very Small Negative Correlation*
-0.25 - -0.49	*Moderately Negative Correlation*
-0.50 - -0.75	*High Negative Correlation*
-0.75 - -0.99	*Very High Negative Correlation*
-1.0	*Perfect Negative correlation*

The results revealed a significant and moderately negative correlation between those challenges and support mechanisms experienced by the respondents, which means that when they adopted those support mechanisms, the challenges they experienced also lessened. Their support mechanisms were instrumental to surpass the challenges they experienced in flexible learning during the pandemic. The findings were supported by the study of De Villa et al. (2020), stating that though those challenges surfaced during the implementation of distance learning, the teachers in secondary have ways to overcome them to cope with the challenges of the new normal. Implementing their support mechanisms, such as positive well-being, time management, and peer monitoring, helps them meet the demands of new learning modalities and perform their duties and responsibilities as facilitators of learning.

The study of Jelińska and Paradowski (2021) also presented results supporting the current study. Spearman's correlation revealed a significant relationship between the perceived challenges met and teachers expressed coping mechanisms regarding openness to change. It implied that teachers and other people had encountered challenges due to this pandemic, which changed their lives—being positive and open to whatever changes in the curriculum or learning modality can help them address the perceived challenges. Working with a positive mind results in a successful endeavor. The study by Alea et al. (2020) also mentioned the inverse relationship between emotional intelligence and academic stress that pre-service teachers are dealing with. Emotional intelligence includes adaptability, self-awareness, and self-concept, which believed that working on these would improve their teaching practices and eventually lessen the stress they are going through. The idea was very apparent in the results given in the present study.

The pre-service teachers in CBSUA managed to have faith in their selves as they do their tasks in flexible learning. To support this claim, Rastegar and Rahimi (2023) added the idea that the coping flexibility of the pre-service teachers was inversely connected to the depression and anxiety brought on by the pandemic. Hence, to lessen the challenges to personal well-being among pre-service teachers, they must strengthen their coping resilience. From the results of the present study, the pre-service teachers adapted to the changes positively because their support mechanisms had a higher frequency rate than the challenges they faced.

In terms of technology integration, instructional and interactional practices, the pre-service teachers also had positive experiences and manifestations. According to Shirish et al. (2021), acquiring IT mindfulness in the new normal has a significant positive relationship with both productivity and creativity in learning. In the present study, the pre-service teachers could use the resources they have (e.g., computer, tablet, laptop, mobile phones, internet connections, online applications, and the like) to accomplish their tasks through online teaching successfully. Rana (2020) stated that innovative teacher training programs should be implemented to increase the awareness and integration of ICT pedagogy. In addition, Ocampo (2021) added that as 21st-century learner skills increased, the use of 21st-century teacher skills increased as well. Based on the given results, the researchers believed that the pre-service teachers of CBSUA have undergone prior knowledge and adaptation regarding ICT pedagogy integration. Researchers also believed that if their technological competence is constantly nurtured through training, they can be more productive and creative in their future teaching endeavors in the post-pandemic era.

As a whole, the respondents have a moderate challenge in flexible learning while the opportunities are very evident; thus, it recommended that orientation on the prevalent and persistent issues regarding flexible learning should be discussed and given emphasis to the students. Sessions tackling the different competencies may be

conducted to strengthen the strengths of the pre-service teachers, especially on how to navigate issues and concerns related to flexible set-up such as online teaching techniques and digital literacy.

V. CONCLUSION

To summarize the findings, the challenges got an average weighted mean of 2.76 interpreted as sometimes while the coping mechanisms got a 3.67 average weighted mean, interpreted as often. It means the pre-service teachers sometimes experience challenges during the flexible learning set up. The support mechanisms are often implemented to deal with those challenges, and they were eager to have a successful online learning experience. The results implied that the pre-service teachers were continuously improving to adopt the new normal. However, challenges still tested their resiliency throughout their journey on flexible learning. The lack of physical interaction and unfamiliarity of the respondents with the background and competency have caused their difficulties in searching and developing instructional materials that will be appropriate for them. Sometimes their competencies are insufficient to develop good instructional materials, including presentations, activities, and learning modules. They also had a little disinclination with the discussion, considering that they only had online interaction, which might affect their communication inside online classes. Technology and internet connection were highly important in the flexible learning set-up; hence, having unstable connections causes delays in their online classes and accomplishing their tasks. The environment also was one factor that caused a disturbance in their online learning. The stress and limited attention to other things may be caused by spending too much time in preparation as they were eager to have a better outcome in their learning and may also affect their well-being. The advent of the pandemic resulted in the respondents maximizing utilizing technology to cope with the lessons and tasks during their learning; hence, different online platforms were explored, and their technology integration skills were challenged. During synchronous sessions, implementing online netiquettes and rules became ways to manage the online class. Formulating easy-to-understand questions and instructions allowed the students to perform the activities well and for the pre-service teachers' effective management of lessons.

VI. RECOMMENDATIONS

The pre-service teachers may gather different learning resources and expose themselves to the different concepts and teaching pedagogy regarding their subject matter. Along with their tasks, they may also create their personal organizer sheet to guide them with their tasks and other routines and spend quality time for themselves to unwind and reflect. They should be open to technological advances and continue exploring them, including the platforms to improve their ICT skills. Encourage giving feedback among them and their students for the development of both parties. Furthermore, seminars and any support system may help them in their personal growth and professional development in teaching. The pre-service teachers may continue implementing their support mechanisms when they engage in a real teaching environment to have an effective and positive teaching experience. They may work on their coping mechanisms to mitigate the challenges they are dealing with. They can do this by believing in their capability, using the available resources, particularly the ICT, asking for emotional support from their peers and teachers, and constantly nurturing their skills through attending seminars or workshops. The College may also conduct program intervention for the pre-service teachers that will tackle the appropriate practice, technology utilization, and other insights to help address those identified challenges in this study. It will equip them with the knowledge and competencies needed to face the real world of teaching, especially with the flexible learning set-up. The practices concerning their technology skills, social skills, pedagogical competence, and personal well-being should be given top-most priority. Furthermore, it is apparent that more-blended learning in the post-pandemic stage is one of the things that the administrators and school leader should be foreseeing. The use of traditional visual aids in teaching is still a trend in the face-to-face setup. Currently, limited face-to-face is ongoing, and in times of distance learning, using google meetings and google classroom is relevant. The fusion of face-to-face and online learning is possible, and it positively impacts the lives of learners, teachers, universities, and the Philippine educational system as a whole.

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