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The Preparedness of a Philippine Higher Education Institution on the Implementation of Flexible Learning (FL)

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Abstract. HEIs' response and innovations for the continuity of quality education during pandemic were the biggest challenges beset by them.This study mainly assessed the preparedness of Ilocos Sur Polytechnic State College, Philippines on the implementation of flexible learning amidst COVID 19 pandemic. The areas considered along preparedness are the following: resources, modes of delivering instructions, policies, support services for students, course packages(available offline/online), mechanisms for students to receive and access printed or digital course packages and instructional materials and establishment/availability/utilization of multi-media or learning resource center/s for faculty members. This study further determined the constraints on the implementation of flexible learning and results served as a benchmark in the development of a Learning Continuity Plan(LCP). This study made use of a descriptive design with 137 faculty respondents selected randomly. A survey questionnaire was used to gather data. Results reveal that the college is at the average level of preparedness.Resources, modes of delivering instruction, policies, courier, electronic library and Learning Management System(LMS) were identified as constraints that need to be improved.The Learning Continuity Plan(LCP) suggested measures to improve the implementation of Flexible Learning(FL).With these results, it is suggested that resources,Learning Management System(LMS),policies and modes of delivering instruction shall be established systematically.

Keywords. Education, Preparedness, flexible learning, resources, learning continuity plan, descriptive design

Introduction

The strike of COVID 19 pandemic has affected the world enormously.It paralyzes every nation's economy and education was never spared.The health of the people was a primary concern that by all means it has to be protected. Health protocols take into effect to avoid widespread contagion.People have to experience lock downs and observe social distancing to limit mobility and to ensure safety.

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The education sector was at the state of chaos for a while.Thousands of students were affected.Under health protocols,students,entire the Philippines were advised to stay at home.It was then a great decision to let them stay at home and continue learning at home. The use of different learning modalities had to be adopted at the times when no one is certain of how they shall be done given the kinds of situations educators are beset to.

Providing a high-quality education in a predictable, in-person setting is already a complex and a difficult task. The uncertainty and limitations on space and time imposed by COVID-19 have magnified these existing education challenges. By making improvements across each of the key dimensions of flexible learning preparedness, schools can ensure preparedness to meet student needs despite potential interruptions to in-person learning.

The state has to protect its people at a time it is at war with pandemic. More so,the state has to educate its people even at the most challenging times.Higher Education Institutions (HEIs) entire the Philippines have to utilize learning modalities familiar and unfamiliar to them in response to the call of time.Relative thereto,flexible learning became not only an option but the most appropriate measure to address the current learning and teaching situation.

Flexible Learning (FL) becomes the most appropriate approach for teaching and learning activities addressing the desired performance of understanding with the use of the most available resources of the institution.Relative thereto,the issuance of Circular Memorandum Order (CMO) number 4,series of 2020 by the Commission on Higher Education(CHED) aims to monitor the implementation of flexible learning among SUCs.

Along this study,Barrera et al.,[1] assessed the students' and teachers' readiness for flexible learning.Results indicate that respondents use smartphones,laptops and can connect to the internet through mobile data and wifi providers.With these result,the establishment of official online platforms or learning management was recommended.Flexible learning scheme such as offline class or use of modules were also forwarded to be considered.

In the same vein,Palaoag et al.,[2] assessed the readiness of the colleges and universities in the Cordillera region(CAR).With 28 participating schools,their findings indicate that 89.3% of the participating HEIs have been utilizing flexible learning system(FLS) and have institutional policies regarding it.Their study also shows that faculty and students' encountered challenges in adapting online distance or flexible learning.It is therefore recommended that a framework,continuity plan or game plan and consortium among HEIs in the region should be developed.

The determination of the nature and levels of flexibility in learning and teaching in a given context depends on several interacting variables, such as the nature of the subject matter, the level of study, location of students and teachers, and their readiness for flexible learning including their access to technologies and the necessary infrastructure. One size or approach to flexible learning does not, and will not fit all learners, teachers or disciplines. There is a need for different approaches to learning and teaching, with different levels of flexibility, structure and guidance for different cohorts and learning contexts, while the threshold principles of all approaches remain the same. And these principles are about open and equitable access to learning opportunities, flexible approaches to learning and teaching, and the adoption of open scholarship in its education practices [3].

Educators in the 21st century realize that students entering the classroom today are much different from those who have come before. Today's students are demanding a change in the classroom because of their ability to gather information faster than any other generation. It gives users on-demand access to the content, tools, training, information, and support they need to create and enhance learning relevance and efficacy through both school-provided and

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personal technology. Learning is acquiring new, or modifying and reinforcing existing, knowledge, behaviours, skills, values, or preferences and may involve synthesizing different types of information[4].

According to Shurville et al.[5]flexible learning is a set of educational philosophies and systems, providing learners with increased choice, convenience, and personalization to suit the learner. In particular, flexible learning provides learners with choices about where, when, and how learning occurs.Geerhart,[6]on the other hand,defines flexible learning as an approach that provides learners with different opportunities to focus more on learning requirements and individual learning circumstances.

Learner-centered flexible learning encourages increased independence and autonomy on the side of the learner. Its mission is to assist and empower learners, giving them more control over their education and allowing them to become more self-directed. It expands learners' and teachers' options, resulting in a 'blurring of traditional internal/external boundaries (George & Luke[7].Flexible admissions and enrolment processes, as well as flexible assessment and assessment periods, are all examples of flexibility.

Collis & Moonen[8] cited that flexible provision of higher education refers here to a mode of provision that provides learners with guided choice, in a number of domains, achieved through employment of various strategies including the use of learning and teaching techniques and technologies and the adoption of policies affecting choices for learners.

Advanced Higher Education believes that flexible learning is about empowering students by offering them choices on how, what, when and where they learn.The adoption of this modality by the HEIs was an ultimate alternative to remedy a situation where educational services are being hampered in time of chaos.To ensure the continuity of education,the Commission on Higher Education CHED) monitors the HEIs' extent of implementation of flexible learning in their respective schools.It is from this premise that the researchers took interest in looking into the preparedness of the teachers and administrators on its implementation at Ilocos Sur Polytechnic State College.

Literature Review

The study of Joan [4] proved whether flexible learning in classroom helps promote quality education.Data were elicited through interview method.The researcher prepared a flexible learning schedule to find the new learning design in classroom process. The investigator collects the information from the student about the flexible learning design in classroom environment. Results concluded that learning molds the learner to plan their activities according to their interest and enthusiasm. It also keeps the mind of learner in a pleasant situation that is out of external fear.

The Edmund Rice Education Australia (EREA) Flexible Learning Centres aim to provide a supportive learning environment for young people who find themselves outside of the mainstream secondary schooling system.The Centres aim to deliver a personalized learning experience with an emphasis on flexibility and individual choice. The aim of this research project has been to work with teaching staff at a Flexible Learning Centre in North Queensland, Australia, to explore the value of integrating ICT in the form of Web 2.0 technologies to enhance young people's engagement with the subject of science. Findings indicate that ICT integration is effective in revitalizing science education interest for disengaged young people. This result may have broader consequences in terms of general worries about students' interest in and participation in science during their secondary school years. The study of Tucker, Richard; Morris, Gayle [9] outlines a method for elucidating how the concept of flexible

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education can be transformed into teaching models that are informed by the demands of distinct academic contexts. Students and academics in the Built Environment use a flexible learning "matching" tool to articulate their understandings and preferences, bridging the gap between student expectations of flexibility and their teacher's willingness and ability to provide that flexibility within the constraints of the pedagogical context and teaching resources. The findings suggest an informed starting point for educators in the Built Environment and other creative disciplines from which to traverse the complexities inherent in negotiating flexibility in an increasingly digital world.

The study of Müller et al.,[10] with flexible learning, students gain access and flexibility with regard to at least one of the following dimensions: time, place, pace, learning style, content, assessment or learning path. Zurich University of Applied Sciences (ZHAW) has launched a new flexible learning study format called FLEX, a blended learning design allowing students to be more flexible as to when and where they study. It reduces classroom learning time, replacing some of it with an e-learning environment for self-study that includes instructional videos. In a pilot phase, we conducted a semi-experimental study on the learning effectiveness of FLEX. Students' perceptions of the new study format FLEX were found to be positive. In addition, the final test results of students in the FLEX programme were similar to those of other students, despite classroom learning time was reduced by about half.

The development of new technologies has promoted an astounding growth in distance education, both in the number of students enrolling and in the number of universities adding education at a distance to their curriculum[11]. While the application of modem technology may glamorize distance education, literature in the field reveals a conceptually fragmented framework lacking in both theoretical foundation and programmatic research. Without a strong base in research and theory, distance education has struggled for recognition by the traditional academic community.Distance education has been described by some [11; 12] as no more than a hodgepodge of ideas and practices taken from traditional classroom settings and imposed on learners who just happen to be separated physically from an instructor. As distance education struggles to identify appropriate theoretical frameworks, implementation issues also become important. These issues involve the learner, the instructor, and the technology. Because of the very nature of distance education as learner-centered instruction, distance educators must move ahead to investigate how the learner, the instructor, and the technology collaborate to generate knowledge.

Traditionally,both theoretical constructs and research studies in distance education have been considered in the context of an educational enterprise that was entirely separate from the standard, classroom-based, classical instructional model. In part to justify, and in part to explain, the phenomenon, theoreticians like Holmberg, Keegan, and Rumble explored the underlying assumptions of what it is that makes distance education different from traditional education. With an early vision of what it meant to be a nontraditional learner, these pioneers in distance education defined the distance learner as one who is physically separated from the teacher[13], has a planned and guided learning experience[14], and participates in a two-way structured form of distance education that is distinct from the traditional form of classroom instruction[15]. In order to justify the importance of this nontraditional kind of education, early theoretical approaches attempted to define the important and unique attributes of distance education.

Farhan [16] forwarded a result that e-learning user interface is useful.More than this,findings indicate that teachers believe the ELUI would be efficient, particularly with adequate training and support, though were unable to comment on the cost effectiveness of e-

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learning systems. The overall results suggest that academic decision-makers should adopt instructional communication features in e-learning systems.

Moralista and Oducado[17] determined the perception toward online education among faculty in a State College in the Philippines.Research findings indicate that the majority of faculty had intermediate computer competency and had no training in online teaching, with only a few having a very stable internet connection. Faculty considered online education to result in more academic dishonesty, impersonal and lack feeling compared to face-to-face classes, and difficult to manage in terms of technology. Additionally, faculty were undecided if they are in favor of online education.

The study of Joan[4]concluded that flexible classroom learning aids in the promotion of high-quality education but there is a need for profound knowledge of technology to purposely make their learning tasks easy and effective.Lim[18]examined the perception of the undergraduate students who underwent online course with flexible learning schedule compared to those students who the same course but with fixed learning schedule.Three dimensions were examined which are: online learner's learning, application of learning, and instructional quality.The study revealed meaningful findings on the effect of flexible and fixed learning schedule on learning and application of learning in an online learning environment.

According to Lim [18]instructional condition is a significant area of study in order to improve learner's satisfaction and learning outcomes,thus,

indicating in his study that flexible learning delivery format do not influence online learners' perceived learning.

Palmer's[19]study indicates that flexibility is frequently promoted as desirable in and of itself, with a wide range of learning and interaction possibilities available. However, there are often real trade-offs between aspects of flexibility that mean that the various dimensions of flexibility are not fully independent. Many of the various alternatives are crystallized into practical constraints on the dimensions of flexibility by academic staff's intentional choices in the design and operation of their learning environments.

The role of technology is significant in the realization of the successful conduct of flexible learning in any educational institution.Globalization offers opportunities and challenges for learners in higher education to emphasis on information and communication technologies (ICTs) such as internet usages[20].The growth of the Internet in the world provides many opportunities to many people around the world in many different ways[21]The internet is very efficient mechanism to increase distribution of information within the organization, as well as to a wider global audience[22].

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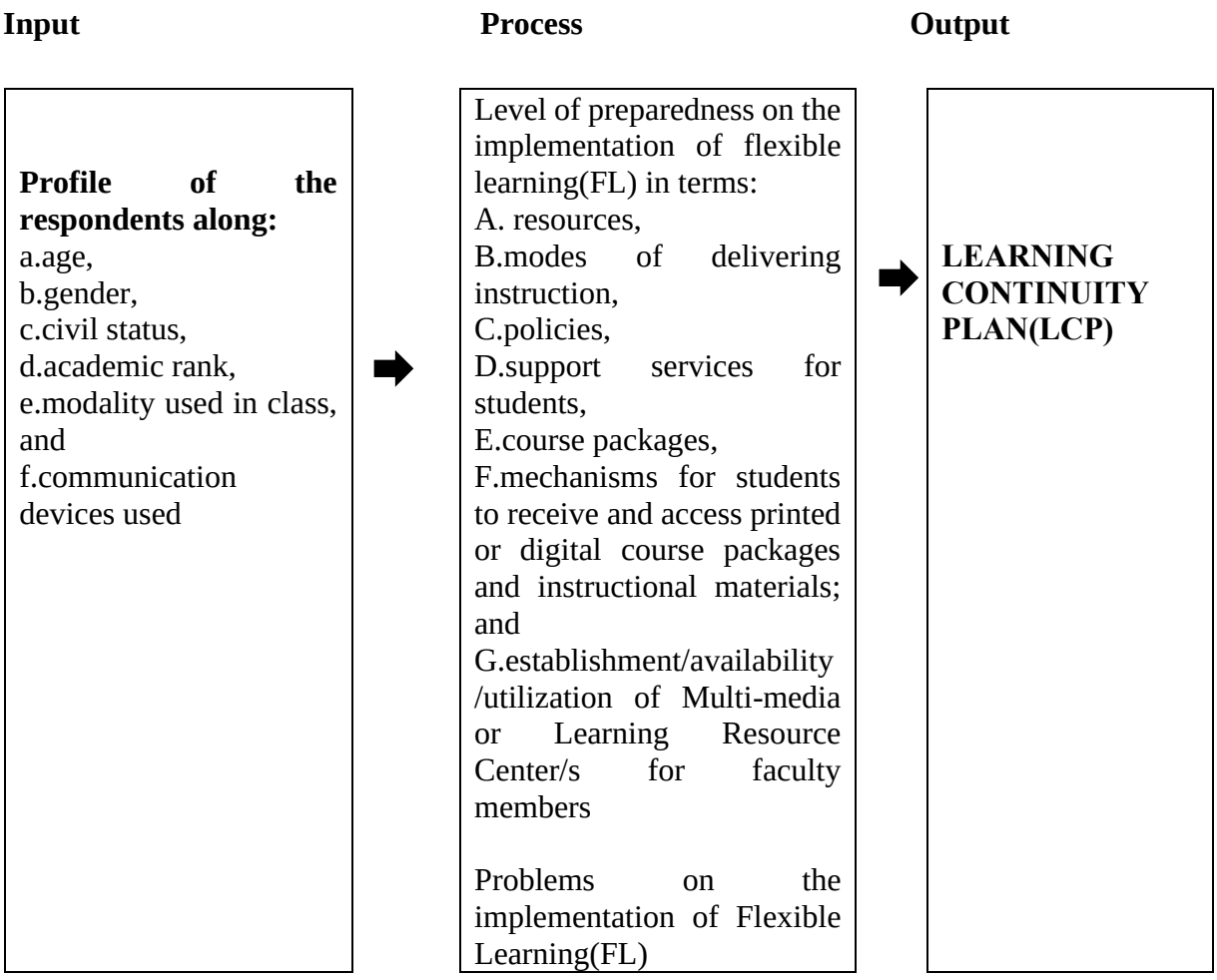

Figure 1
Research Paradigm

This paradigm illustrates an Input Process Output flow. Profile of the respondents is presented under input.The output presents the level of preparedness on the implementation of flexible learning(FL) in terms of resources,modes of delivering instruction,policies,support services for students,course packages,mechanisms for students to receive and access printed or digital course packages and instructional materials; and establishment/availability/utilization of Multi-media or Learning Resource Center/s for faculty members;significant relationship between the profile of the respondents and the level of preparedness on the implementation Flexible Learning(FL);and problems on the implementation of Flexible Learning(FL).The output is the Learning Continuity Plan (LCP).

Methods

Research Design

This investigation utilized the descriptive design.The research design is a combined description and correlation design where theories or concepts gathered were used to describe a certain phenomenon and were subjected to correlational strategy to see significant associations. Descriptive design is used to describe characteristics of a population or phenomenon being

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studied. Correlational tests measure the relationships between two variables . It is done to establish what is the effect of one on the other might be and how that affects the relationship Klazema[23].The developmental approach was used in the formulation of the Learning Continuity Plan.

Population and Locale of the Study

The respondents were the 137 faculty members from the six (6) campuses of ISPSC selected randomly.The sample size was determined through Slovin's formula.

Research Instrument

The instrument in gathering data is the monitoring tool for the implementation of Flexible Learning (FL) prescribed by CMO #4, S.2020 by the Commission on Higher Education(CHED) with the inclusion of profiling of the respondents.

Statistical Treatment of Data

Frequency and Count,Weighted Mean and Pearson's Correlation were used to treat the data.

Data Categorization

Level of Preparedness of ISPSC on Flexible Learning(FL)

Range	Descriptive Rating
4.21-5.00	Very Much Prepared (VMP)
3.41-4.20	Much Prepared (MP)
2.61-3.40	Moderately Prepared (MP)
1.81-2.60	Slightly Prepared (SP)
1.00-1.80	Not Prepared (NP)

Problems on the preparedness on the implementation of Flexible Learning(FL)

Range	Descriptive Rating
2.61-5.0	Not a Problem
1.00-2.60	Problem

Results and Discussion

Profile of the Respondents

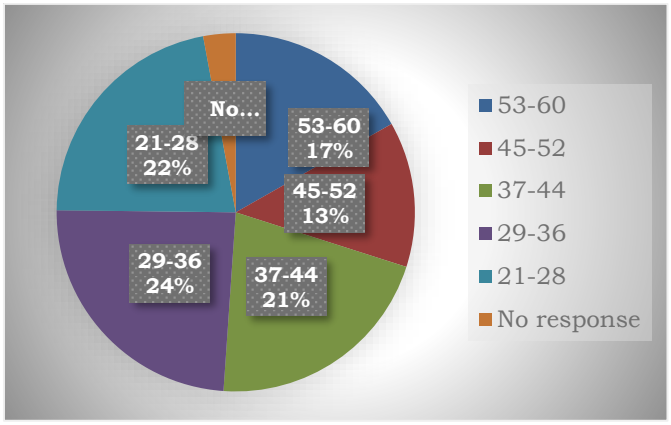

Figure 2
Profile of the respondents on age

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Figure 2 reflects that most of the respondents are at the age bracket of 29-36 with 33 or 24 % followed by respondents whose age bracket is at 21-28 with 30 or 21.9%.This result implies that there are more young adult employees who render teaching services in the College over the seasoned employees.This finding negates the result of the study of Pickering[24]whose participants' ages ranged from 50 to 87 years.

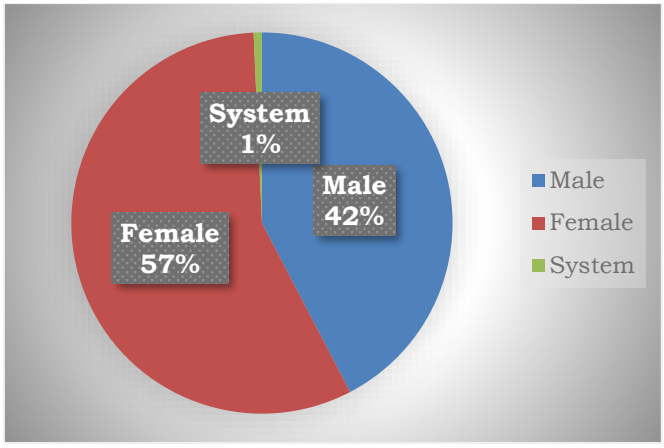

Figure 3
Profle of the respondents on gender

Figure 3 indicates that female respondents has 78 or 57 % as a total representation while male respondents are 58 or 42%.This result indicates that female outnumbered the male.These findings coincide with the result of profile obtained in the study of Tamiya and Shikata [25] which revealed that in terms of sex, the percentage of households comprised only of adults is higher for males (13%) than females (8%).Relative to this result,Wijaya's [26] notion that based from history, teaching career

is predominantly held by female starting 19th century and viewed that children is more suited to women.

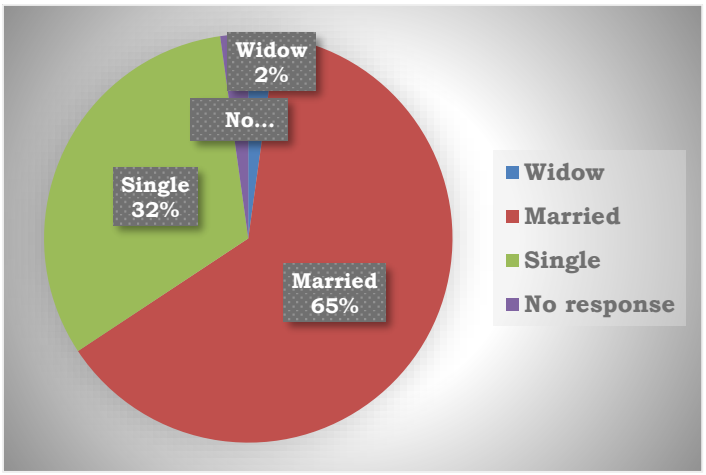

Figure 4
Profile of the respondents on marital status

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Figure 4 shows the civil status of the respondents.Majority of them are married with 87 or 63.5 % while there are 44 or 32% who are still single.It can be noted also that 3 or 2.2% are widow

while 3 or 2.2% did not respond.The result is an implication that teacher employees of Ilocos Sur Polytechnic State College practice their profession and at the same time perform duties on their marital life. The study of Saeed et al.,[27]obtained the same finding with the present study whose respondents' marital status are mostly married.

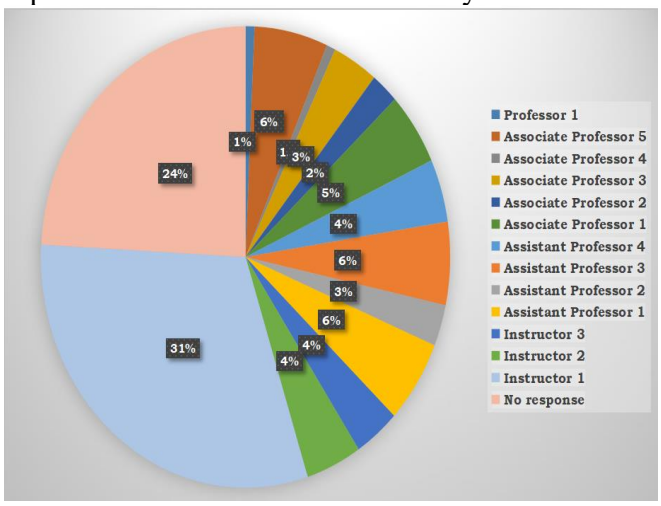

Figure 5
Profile of the respondents on academic rank

Most of the respondents are occupying Instructor I position with a frequency distribution of 42 or 31%% while there are 8 or 5.8 % who are already Associate Professor V.Same frequency distribution,8 or 5.8 for Assistant Professor III and Assistant Professor 1 respectively.Professor I got the lowest frequency with 1 or 0.7%. This result implies that teachers with higher rank are fewer in number.This result may be explained by the fact that to be promoted in the SUC,an employee has to earn points based on the prescribed instrument of the NBC 461.This result coincides with the finding of Moralista and Oducado [17] whose profile of the respondents are mostly occupying Instructor I position.

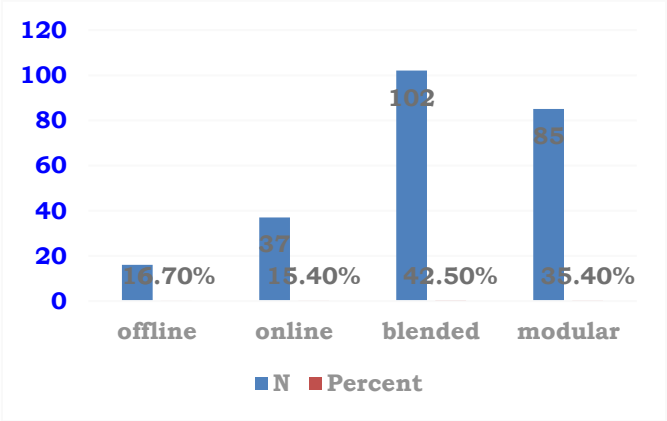

Figure 6
Learning Modality

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Majority of the respondents utilize blended learning as their teaching modality with 102 or 42.5 %.This is followed by modular learning modality as represented by 85 or 35.4%.Among learning modalities,offline got the lowest rating with 16 or 6.7%. The result implies the preference of the teachers in the delivery of their instruction.It is evident as supported by the data that blended learning is mostly adopted by teachers. This could be attributed to the fact that today's teaching has totally embraced the use of technology as a means of delivering learning.This approach to imparting knowledge and to the future generation is slowly considered as a modern classroom. Adding to this,due to the worldwide pandemic that impacted health,economy and education,flexible learning has become a measure in delivering learning experience.

Blended learning is classified to be a form of flexible learning. Relative to this,recent meta-analysis on blended learning [28]; [29];[30] found a moderate but significant positive effect of blended learning compared with face-to-face instruction. The problem is that these studies usually do not indicate whether conventional teaching is supplemented by e-learning or replaced altogether. Confounding factors such as additional learning resources, additional learning time, or other interactions with the instructor,thus, contribute to the positive outcomes for blended learning.

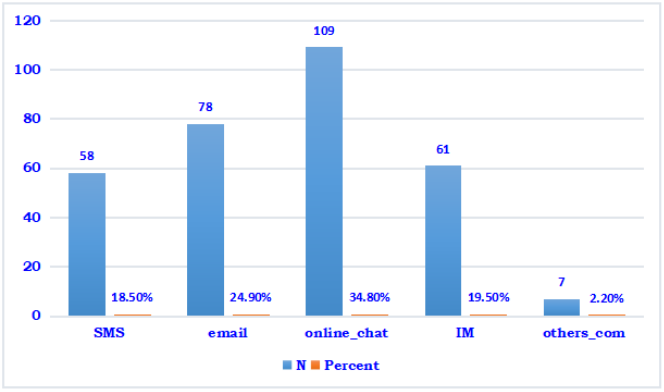

Figure 7
Communication Used

As revealed by figure 7, online chat obtained the highest rating with 109 or 34.8 % while email came second with 78 or 18.5 % as a communication device used by the respondents.The least distribution was obtained by other forms of communication.This result implies that the respondents find online chat to be more accessible and convenient to reach the students to communicate their lessons and activities.The presence of the application that requires usage of low data such as messenger,telegram and other apps can also be a factor to this result.

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Level of Preparedness on the implementation of Flexible Learning(FL) along:

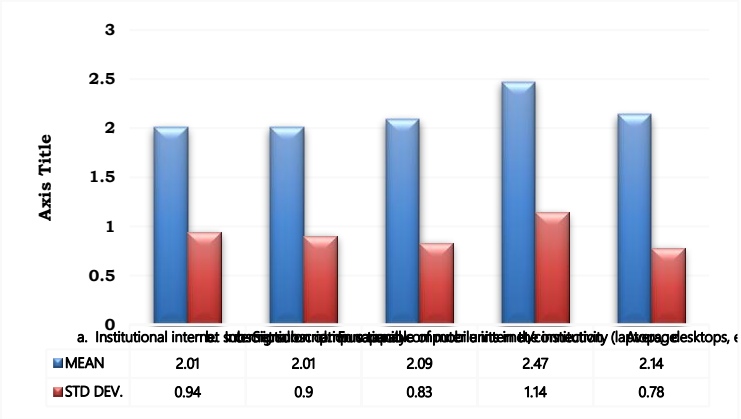

Figure 8
Level of Preparedness on Resources

Range	**Descriptive Rating**
4.21-5.00	Very Much Prepared(VMP)
3.41-4.20	Much Prepared(MP)
2.61-3.40	Moderately Prepared(MP)
1.81-2.60	Slightly Prepared(SP)
1.00-1.80	Not Prepared(NP)

Along resources,*Functional computer units in the institution such as laptops,desktops and others* receives the highest rating with 2.47 described as slightly prepared followed by the item *signal on campus capable of mobile internet/connectivity* obtained the second highest rating with a mean of 2.09 described as slightly prepared.The lowest items which received the lowest rating are the items *institutional internet subscription* and *internet subscription capacity* with a mean of 2.01 respectively.This result implies that internet connectivity is a necessity for the teachers.Aside from modular instruction,most of the follow up activities and online classes are done using applications that require high data.As they are dependent to connectivity in the delivery of instructions,they likewise depend on stability of internet connection in the campus.

Internet usage is not only beneficial for the teachers but even to the students.The findings of the study of Chanboualapha and Islam[31] indicates positive relationship with students' learning.This explains that the higher usage of internet the higher is the grade.This result can also be corroborated to the study conducted by Barrera et al.,[1] whose respondents are found to be users of smartphones and laptops and they are dependent to mobile data usage and wifi providers.

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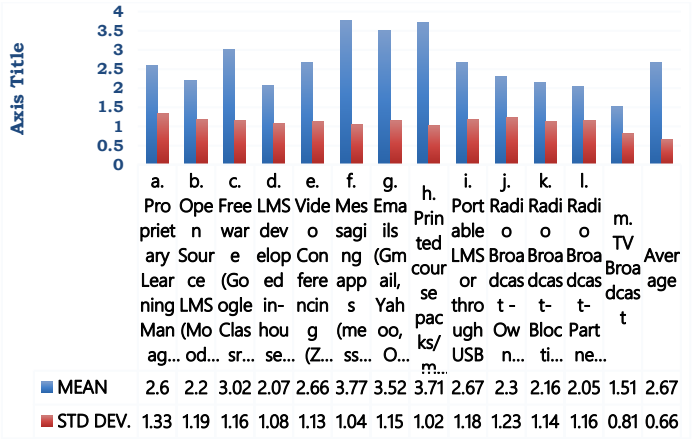

Figure 9
Level of Preparedness on Modes of Delivering Instruction

The figure reveals that *messaging app(messenger,viber,whatsapp,telegram,etc.)* received the highest rating with a mean of 3.77 described as much prepared followed by the item *Printed course packs/modules for delivery* with a mean of 3.71.The lowest item under modes of delivering instruction that received the lowest mean is the item *TV Broadcast.*This result indicates the most convenient and the most accessible modes of delivering instructions for the teachers are the applications with low data usage such as messenger,viber and others..These applications can be installed in their mobile phone and can be used any time and any where.The result can also be attributed to the fact that most teachers use them as the most available resources in the delivery of the learning materials and requirements.

The findings of the present study obtained the same result with that of Barrera et al.,[1] whose respondents utilize Facebook messenger for communications followed by Skype, and the least used is the ZOOM application.Farhan et al.,(2019)indicates that the need for understanding the views of faculty toward online education is necessary so that their concerns may be properly addressed. The voices of faculty are needed in the acceptance of new educational technology, and that will eventually contribute to the success of learning systems in academic institutions.

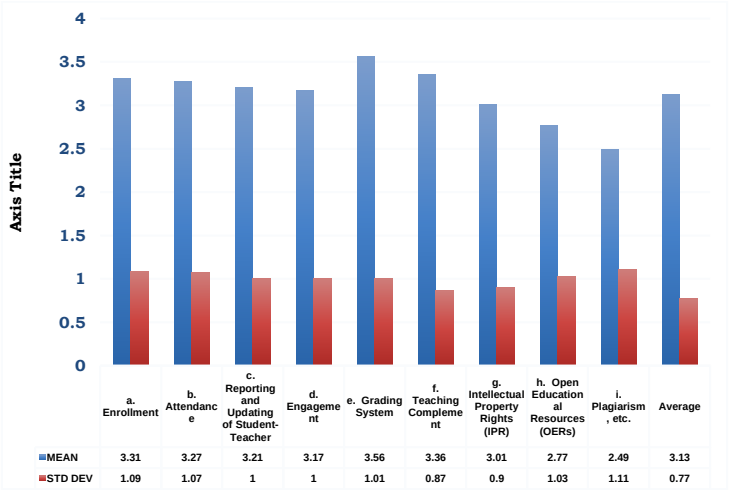

Figure 10
Level of Preparedness on Policies

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On policies formulated by the College as a response to COVID 19 pandemic, it indicates that *Grading System* with a mean of 3.56 described as much prepared obtained the highest rating.The policy on *plagiarism* received the lowest rating on the other hand.This result manifests that the College has responded immediately to the needs of the learners specifically on how their performance are to be evaluated given this kind of condition when physical presence is not allowed in a classroom setting.But on the other aspect,the College has not formulated yet a policy on plagiarism to detect academic dishonesty.

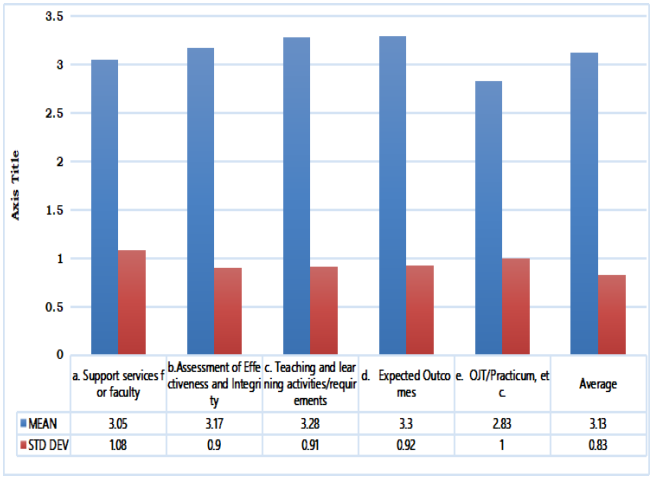

Figure 11
Level of Preparedness on Support Services for Students

Evidently,the table shows that *teaching and learning activities/requirements* obtained the highest rating(3.28)described as moderately prepared while the lowest was received by OJT/Practicum described as moderately prepared. This pandemic time has put everyone else into a limited movements that OJT/practicum has become a problem to be carried by every Higher Education Institution(HEI) offering programs that require OJT/practicum.A question of how they shall go about it was a big challenge. The result implies that support services along this was limited as physical contact was strictly not allowed.

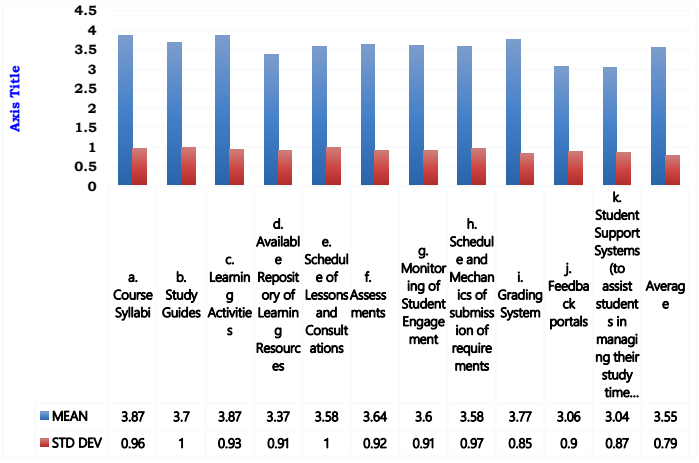

Figure 12
Level of Preparedness on Course Packages

The items *course syllabi* and *learning activities* received the highest as indicated by a mean rating of 3.87 followed by *grading system* with a mean rating of 3.77.These results imply that transmittal of these documents which are essential in their learning and educational pursuit

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were satisfactorily met.Over-all the College is *much prepared* along Course Packages both online and offline.

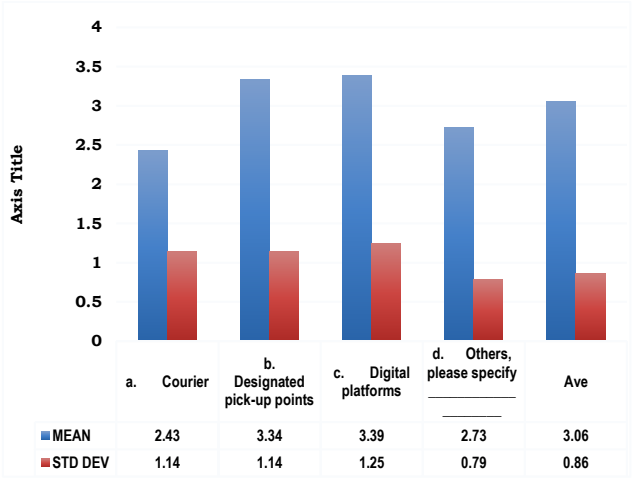

Figure 13
Level of Preparedness on Mechanisms for Students to Receive and Access Printed of Digital Courses Packages and Instructional Materials

The result indicates that *digital platforms* received the highest rating(3.39) described as moderately prepared while *courier* came the least with a mean of 2.43 described as slightly prepared.These findings mean that the most accessible mechanisms for students to receive printed or digital course packages and instructional materials is the digital platforms.The necessity and importance the use of the different applications to supplement students' learning in the midst of pandemic is considered by teachers as their response to the situation.

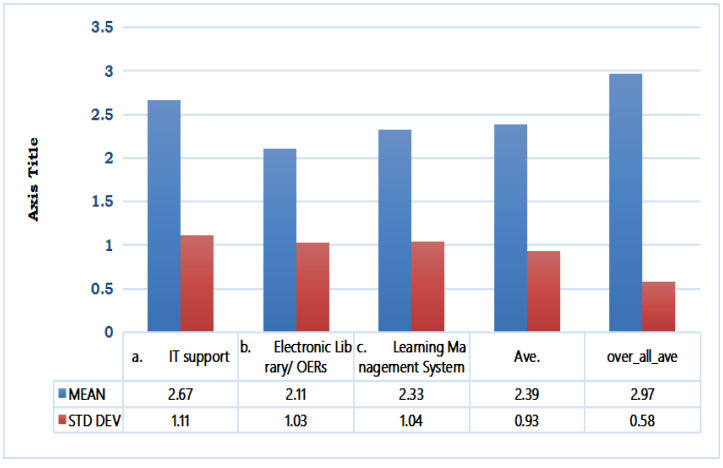

Figure 14
Level of Preparedness on Establishment/Availability/Utilization of Multi-media or Learning Resource Center/s for Faculty Members

As described on the figure, *IT support* got the highest rating with 2.67 described as moderately prepared while *electronic library/OERs* got the lowest with a mean of 2.11 described as slightly prepared.The result is an indication that IT support only receives moderate

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preparation which means that there is a need to enhance it.Electronic library/OERs are seen to have an essential use for faculty in the preparations of the instructional materials,thus,they should be enhanced too. When teachers are provided with are equipped technologically,they can be more effective in their delivery of quality instructions despite this kind of situation.As emphasized in the study of Bhattacharjee and Deb[32],technologies play an important role in training programme of teachers. Students‟ accesses knowledge and information through TV, digital media, cable network, internet and social media i. e. Facebook, Twitter, Whatsapp, Linkedin, Igo, Line, Wechat etc.

Over-all the Collge is on the moderate level of preparedness.This result can be attributed to the fact that there are resources which are not possible to produce and meet during this time as the need is sudden and abrupt.The provision of connectivity to establish stable connection for the faculty alone requires funding and its implementation takes time.

Table 1a.Relationship between the profile and the level of preparedness on the implementation of Flexible Learning

Level of Preparedness of ISPSC on Flexible Learning in terms of:	**Age**	**Sex**	**Academic Rank**
A.Resources	-0.109	0.161	-0.082
B.Modes of delivering instruction	-.233**	0.087	-.203*
C.Policies	-0.095	0.043	-0.184
D.Support services for students	-0.141	0.087	-0.150
E.Course packages	-.198*	-0.071	-0.123
F.Mechanisms for students to receive and access printed or digital course packages and instructional materials	-.191*	-0.001	-0.124
G.Establishment/availability/utilization of Multi-media or Learning Resource Center/s for faculty members	-.223*	0.041	-.255**
Over all average	-.232**	0.084	-.223*

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

As presented on the table, *age* shows significant effect on their level of readiness on modes of delivering instruction, course packages, mechanisms for students to receive and access printed or digital or digital packages and instructional materials, establishment/availability/utilization of multi-media or learning resource center/s for faculty members. Academic rank is significantly related to modes of delivering instruction and establishment/availability/utilization of multi-media or learning resource center/s for faculty members. The table reveals that all significant correlations are negative, indicating inverse relationship. This implies that older respondents, and with higher academic rank, tend to have lower level of readiness. This result implies that older respondents and with higher academic rank tend to have lower level of readiness particularly on the dimensions mentioned above. The result of the study negates the finding of Loyd et al.[33] who revealed that age has no effect on their skills in computer technology.

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Table 1b. Relationship between the profile and the level of preparedness on the implementation of Flexible Learning

Dependent Variables	Pearson chi-square value
A.Resources	8.59
B.Modes of delivering instruction	15.25
C.Policies	4.91
D.Support services for students	41.26**
E.Course packages	13.37
F.Mechanisms for students to receive and access printed or digital course packages and instructional materials	19.99**
G.Establishment/availability/utilization of Multi-media or Learning Resource Center/s for faculty members	14.86
Over-all	**10.55**

**Significant at 0.01 level.
D and F are significantly related to civil status.

Significantly *civil status* is a predictor of preparedness on the variables *Support services for students* and *Mechanisms for students to receive and access printed or digital course packages and instructional materials* with 41.26 and 19.99 Pearson chi-square values respectively.This means that the respondents who are married are deliberately more concerned on how to carry out all these services in the present situation.This result can be attributed to the characteristics of married teachers who know the concerns of their students.Their concern as parents in school is carried out in their teaching task.

Table 2 Problems on the implementation of Flexible learning

PREPAREDNESS OF ISPSC ON FLEXIBLE LEARNING	Mean	Std. Deviation	Descriptive Rating
RESOURCES			
A.Institutional internet subscription	2.01	0.94	Problem
B.Internet subscription capacity	2.01	0.90	Problem
C.Signal on campus capable of mobile internet/connectivity	2.09	0.83	Problem
D.Functional computer units in the institution (laptops, desktops, etc.)	2.47	1.14	Problem
MODES OF DELIVERING INTRUCTION			

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A.Proprietary Learning Management System (Blackboard, Canvas, Brightspace)	2.60	1.33	Problem
B.Open Source LMS (Moodle)	2.20	1.19	Problem
D.LMS developed in-house (URL)	2.07	1.08	Problem
J.Radio Broadcast-Own Station (frequency/call time)	2.30	1.23	Problem
K.Radio Broadcast- Block Timer (frequency/call time)	2.16	1.14	Problem
L.Radio Broadcast-Partner/Sponsor (frequency/call time)	2.05	1.16	Problem
M.TV Broadcast	1.51	0.81	Problem
POLICIES			
i.Plagiarism, etc.	2.49	1.11	Problem
MECHANISM FOR STUDENTS TO RECEIVE AND ACCESS PRINTED OR DIGITAL COURSE PACKAGES AND INSTRUCTIONAL MATERIALS			
A.Courier	2.43	1.14	Problem
ESTABLISHMENT/AVAILABILITY/ UTILIZATION OF MULTI-MEDIA OR LEARNING RESOURCE CENTER/S FOR FACULTY MEMBERS			
A.Electronic Library/OERs	2.11	1.03	Problem
B.Learning Management System	2.33	1.04	Problem

Range	**Descriptive Rating**
2.61-5.0	Not a Problem
1.00-2.60	Problem

The table provides the summary of the problems on the implementation of Flexible Learning.Under resources,all items such as *institutional internet subscription,internet subscription capacity,Signal on campus capable of mobile internet/connectivity and Functional computer units in the institution (laptops,desktops, etc.)* were identified as problems.This result implies that faculty encountered connectivity problem as this is considered essential in the delivery of online classes.

Along modes of delivering instruction, Propriety learning management system,open source LMS,freeware,LMS developed in- house,video conferencing,portable LMS or through USB,Radio broadcast-own station, and TV broadcast were rated low,thus identified as problems.This result implies that there is a need to maximize other resources to be able to reach the students and to respond to the call of time for the continuance of quality teaching and learning at the height of pandemic.

Policies on *plagiarism was rated as a problem.*The result implies the need to draft policies to address academic dishonesty.This policy will require the students' to submit outputs

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that are original. *For mechanisms for students to receive and access printed or digital course packages and instructional materials,courier* was identified to be a problem.Since the College adopted modular instruction,how the modules could be delivered was actually a burden for the teachers especially that college students come from different and distant places.For the establishment /availability/utilization of multi-media or learning resource centers,*electronic library /OERS and Learning Management System* were identified as problems.As pandemic continues,the usefulness of e-library services and establishment of learning management system were highly demanded. Some leaders believe Learning Management System (LMS) are limited to the administration aspects rather than the learning itself[34]. "Learning ecosystems must be agile enough to support the practices of the future. In using tools and platforms like LMS, educators have a desire to unbundle all of the components of a learning experience to remix open content and educational apps in unique and compelling ways". (Adams et al, 2017, p. 2). To address this limitation, Brown, Dehoney, & Millichap[35] have adopted the term next generation digital learning environment (NGDLE) as an evolution of the current LMS.Each generation of distance education has been influenced by the other in terms of technology and pedagogy. While some specialists in distant education have emphasized pedagogy as the primary driving force and technology as a supporting tool, others have placed technology at the center of the educational experience[36].

With these identified problems,the proposed Learning Continuity Plan is being forwarded.

Proposed Learning Continuity Plan (LCP)

I. Rationale

Since its outbreak in late December 2019, COVID-19 has wreaked havoc across the world and like any critical sector, education has been hit hard. Students, schools, colleges and universities have been deeply impacted. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), over 800 million learners from around the world have been affected, 1 in 5 learners cannot attend school, 1 in 4 cannot attend higher education classes, and over 102 countries have ordered nationwide school closures while 11 have implemented localized school closure.

With the government's announcement of a national quarantine back in March, schools, universities, and colleges across the country found themselves in uncharted territory. Educational institutions in the country were forced to quickly shift to online learning and other learning modalities feasible to their academic community. Face-to-face classes were suddenly a thing of the past, while flexible learning becomes the norm.

This scenario has brought dilemma on how to manage learning in the midst of pandemic. For this, every HEI in the Philippines has to think and device a learning mechanism in response to the call of time where physical contact is absolutely limited.One of the mechanisms considered by HEIs is to shift into distance learning adopting different modalities such as blended, online, modular among others.These modalities all geared to flexible learning to address various problems that arose on the part of the teachers and much more on the part of the students such as connectivity, financial and distance.

Ilocos Sur Polytechnic State College,like any other HEIs, has resorted to flexible learning as its ultimate measure and response to continue learning at the most depressing time in history.

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II. Objectives

1. To address the need of the College to better facilitate learning;
2. To determine the constraint of the College to be able to formulate policies that will improve the services to its clientele;
3. To enhance learning experiences and fortify learning through appropriate resources;
4. To determine useful approach to embedding flexibility and determine its extent of integration in leveraging key dimensions of learning and teaching.

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KEY RESULT AREA/S	OBJECTIVES	STRATEGIES	PERSONS INVOLVED	BUDGETARY REQUIREMENTS	TIME FRAME	SUCCESS INDICATOR
■ **Resources**	To improve /add internet connectivity services and procure more computer units	Installation of wifi connections that are accessible by all offices and faculty rooms of the campus. Provision of more computer units at the IT Laboratory room Establishment of computer laboratory rooms that can be utilized by teachers	Finance and Administration officer Director Information Services	Php 5,000.000.00	Year round	Wifi ready campus Easy transmission of requirements Regular conduct of online classes
■ **Modes of Delivering Instruction**	To systematize, strengthen and maximize available resources and most accessible mode of delivering instructions such as media and others	Establish Learning Management System that will effectively deliver online learning Schedule air time of basic subjects classes Establish TV Based instruction to be aired at local channels	Finance and Administration officer Director Information Services Faculty members Heads of units Radio staff and Networking Officer	Php 4,000.000.00	Year round	Established LMS Animated and dynamic classes

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■ **Policies**	To detect plagiarized outputs of students(academic dishonesty)	Draft policies on plagiarism that will treat the outputs of the students Emphasize the sanctions if ever dishonesty is committed	Finance and Administration officer Director Information Services Faculty members Heads of units	Php 10,000.00	Year round	Detected Plagiarized outputs
■ **Mechanisms for students to receive and access printed or digital course packages and instructional materials**	To mechanize the transfer of learning materials to the learners	Establish a systematic pick-up points and identify students who need such delivery of printed or digital materials	Administration Students Services Director	Php 15,000	Year round	Systematic delivery of instructional materials
■ **Establishment/availability/utilization of multi-media or Learning Resource Center/s for faculty members**	To improve the electronic library services	Procurement of additional computer units at the e-library section	Library personnel Administration	pPhp 100,000	Year round	Improved e-library

Conclusions

The results of the profile can be used by the administrators to address the needs of the teachers relative to the implementation of flexible learning.Contributory to the average level of implementation of flexible learning is primarily on the limited resources on internet connectivity and computers.These identified constraints play a big role when it comes to the delivery of learning that adapts flexible learning. Significantly,older respondents with higher academic rank tend to have lower level of readiness on the implementation of Flexible

Learning(FL).Their technology know how is a factor to this result.It reveals that married are more concerned in the delivery of learning materials for students to receive learning materials.Resources,modes of delivering instruction,plagiarism policy,courier,electronic library and Learning Management System(LMS) were identified as problems that need to be improved.The Learning Continuity Plan(LCP) suggested measures on the improvement of the identified problems along Flexible Learning.

Limitations and Future Studies

This study is limited on the assessment of the preparedness of Ilocos Sur Polytechnic State College on the implementation of flexible learning in terms of resources,modes of delivering instruction,policies,support services for students,course packages,mechanisms for students to receive and access printed or digital course packages and instructional materials; and establishment/availability/utilization of Multi-media or Learning Resource Center/s for faculty members resources.Other variables along flexible learning may be included in the future studies along this topic.

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References

[1] Barrera K.I.,Jaminal F.,F.Arcilla, "Readiness for Flexible Learning amidst COVID 19 Pandemic of Saint Michael College of Caraga,Philippines," SMCC Teacher Education Journal, vol. 2,pp.1-15,2020,https://doi.org/10.18868/cte.02.060 120.01.

[2] Palaoag T.,Catanes J.,Austria R.,J. Ingosan.,"Prepping the New Normal:The Readiness of Higher Education Institution in Cordillera on a Flexible Learning,"ICEMT 2020: 2020 The 4th International Conference on Education and Multimedia Technology July 2020 pp. 1-15 https://doi.org/10.1145/3416797.3416829.

[3] Naidu S., "Mainstreaming open, flexible, and distance learning," In *Our world in your place: 30 years of distance learning and teaching at the University of Otago*, K.-W. Lai, S. Stein, P. Field, & K. Pratt (Eds.),Dunedin, NZ:Distance Learning Office,University of Otago,2016,pp.92-108.

[4] Joan D.R.R, "Flexible Learning as New Learning Design in Classroom Process to Promote Quality Education,"i-Manager's Journal on School Educational Technology, vol. 9l, no.1l,pp.37-42,2013, https://doi.org/10.26634/JSCH.9.1.2401.

[5] Shurville S., O'Grady T.(B)., P. Mayall., "Educational and institutional flexibility of Australian Educational Software," Campus-Wide Information Systems,vol.25,no.2,pp.74-84, 2008, http://dx.doi.org/10.1108/10650740810866576.

[6] Gearhart D., "Understanding Flexible Learning Theory and How It is used in Online Learning,"In *Understanding Online Instructional Modeling: Theories and Practices*,Zheng, R. Z., & Ferris, S. P. (Eds.),IGI Global,2008,pp.35-46,http://doi:10.4018/978-1-59904-723-2.ch003.

[7] George R., Luke, R., "The critical place of information literacy in the trend towards flexible delivery in higher education contexts,"Australian Academic & Research

Libraries, vol.27 no.3 pp.204-12,1996,https://doi.org/10.1080/00048623.1996.10754977.

[8] Collis B., Moonen J., "You can't not do it," in *Flexible learning in a digital world*, London: Kogan Page,2001,pp. 29-43.

[9] Tucker R.,Morris G., "By design: Negotiating flexible learning in the built environment discipline," Research in Learning Technology vol.20,no.12,pp.1-16,2012,https://doi.org/10.3402/rlt.v20i0.14404

[10] Müller C. Stahl M., Alder M. Müller M., "Learning Effectiveness and Students' Perceptions in a Flexible Learning Course," European Journal of Open, Distance and E-Learning, vol. 21, no. 2,pp.44-52,2018,https://doi.org/10.2478/eurodl-2018-0006.

[11] Garrison D.R.,Shale,D.,"Mapping the boundaries of distance education: Problems in defining the field," American Journal of Distance Education,vol.1,no.1,pp.7-13,1987.https://doi.org/10.1080/08923648709526567.

[12] Hayes E., "Adult education: context and Challenge for distance educators,"The American Journal of Distance Education,vol.4,no.1, pp.25-38,2009,https://doi.org/10.1080/08923649009526689.

[13] Rumble G., "Characteristics of Distance Education,in *The planning and management of distance education,*1st Edition,Routledge London,2019,pp.1-17.

[14] Holmberg B., "The feasibility of a theory of teaching for distance education and a proposed theory," ZIFF Papiere 60. ERIC, pp.1-26,1985,https://eric.ed.gov ED 290013.

[15] Keegan D., "Problems in defining the field of distance education,"The American Journal of Distance Education, vol.2, no.2, pp. 4–11,1986.Retrieved April 26, 2022 from https://www.learntechlib.org/p/140412/.

[16] Farhan W., Razmak J., Demers S., S.Laflamme, "E-learning systems versus instructional communication tools: Developing and testing a new e- learning user interface from the perspectives of teachers and students," Technology in Society,vol.59,2019,https://doi.org/10.1016/j.techsoc.2019.101192.

[17] Moralista R., Oducado, R.M.,"Faculty Perception toward Online Education in a State College in the Philippines during the Corona virus Disease19(COVID-19) Pandemic, "Universal Journal of Educational Research,vol.8,no.10pp.4736-4742,2020,https://doi.org/10.13189/ujer.2020.08104 4

[18] Lim D., "The Effect of Flexible Learning Delivery Format on Online Learners' Learning,Application and Instructional Perception," Journal of Educational Technology Systems, vol.33,no.4,pp.385-397,2005,https://doi.org/10.2190/DGPY-QYGN-QGJ3-6D6JB .

[19] Palmer S., "The Lived Experience of Flexible Education – Theory, Policy and Practice." Journal of University Teaching & Learning Practice, vol. 8,no.3,pp.1-16,2011,https://doi.org/10.53761/1.8.3.2.

[20] Macharia J., Nyakwende E., "Gender differences in internet usage intentions for learning in higher education: An empirical study," Journal of Language, Technology & Entrepreneurship in Africa,vol. 3,no.1,pp.244-254,2011,https://doi.org/10.4314/jolte.v3i1.66723

[21] Dogruer N.,Eyyam R.,Menevis I., "The use of the internet for educational purposes," Procedia - Social and Behavioral Sciences vol.28, pp.606-611,2011,https://doi.org/10.1016/j.sbspro.2011.11.115.

Technium Social Sciences Journal
Vol. 32, 102-125, June, 2022
ISSN: 2668-7798
www.techniumscience.com

[22] Broad M. J., Matthews M.,K.Shephard, "Audit and control of the use of the Internet for learning and teaching: issues for stakeholders in higher education,"Managerial Auditing Journal, vol.18,no.3,pp.244-253,2003,https://doi.org/10.1108/02686900310469907.
[23] Klazema,A., "Qualitative Versus Quantitative Research:What's the Difference?"
[24] Pickering R.M.,"Describing the participants in a study," Age and Ageing, vol. 46,no.pp.576-581,4,2017,https://doi.org/10.1093/ageing/afx054.
[25] Tamiya,Y.,& Shikata,M.,"The Political and Social Economy of Care: Japan Research Report 2 February 2009," Copyright © United Nations Research Institute for Social Development (UNRISD)
[26] Wijaya,A.,"The Relationships between Indonesian Fourth Graders' Difficulties in Fractions and the Opportunity to Learn Fractions: A Snapshot of TIMSS Results,"International Journal of Instruction,vol.10,no.4,pp.221-236,2017,https://doi.org/10.12973/iji.2017.10413a.
[27] Saeed B.Q.,Al-Shahrabi R.,O.A.Bolarinwa., "Socio-demographic correlate of knowledge and practice toward COVID-19 among people living in Mosul-Iraq: A cross-sectional study," PLoSONE vol.16,no.3,e0249310,2021,https://doi.org/10.1371/journal.pone.0249310.
[28] Bernard R. M., Borokhovski E., Schmid, R. F., Tamim, R. M., & Abrami, P. C., "A meta-analysis of blended learning and technology use in higher education: from the general to the applied," Journal of Computing in Higher Education, vol.26,no.1, pp.87-122.,2014,doi:10.1007/s12528-013-9077-3.
[29] Vo H. M., Zhu C., & Diep N. A., " The effect of blended learning on student performance at course-level in higher education: A meta-analysis," Studies in Educational Evaluation, vol 53,pp.17-28.2017,https://doi.org/10.1016/j.stueduc.2017.01.002.
[30] Means B., Toyama Y., Murphy R., & Baki M., "The Effectiveness of Online and Blended Learning: A Meta-Analysis of the Empirical Literature," Teachers College Record, vol.115,no.3, pp.1-47,2013,https://doi.org/:10.1177/016146811311500307.
[31] Chanboualapha S.Islam M.I.,"Internet usage for improvement of learning," Spring 2012:MASI01.University of Boras School Business and Informatics.
[32] Bhattacharjee,B and Deb,K., "Role of ICT in 21st Century's Teacher Education," International Journal of Education and Information Studies,vol. 6, no.1,pp.1-6,2016,Research India Publicationshttp://www.ripublication.com
[33] Loyd B. H., Gressard C., "The effect of sex, age and computer experience on computer attitudes,"AEDS Journal,vo;.18,no.2,pp.67-77,1984,https://doi.org/10.1080/00011037.1984.11008387
[34] Adams, S., Cummins, M., Davis, A., Freeman, A., Hall, C., & Ananthanarayanan, V., "NMC Horizon Report: 2017 Higher Education Edition, Cuaderno Activa,vol.9,2017.Retrieved April 26,2022, from https://redib.org/Record/oai_articulo2264504-horizon-report--2017-higher-education-edition.
[35] Brown, M.,Dehoney, J. & Millichap,N., "What's Next for the LMS?" Educause Review, 50(4), 40-51. Retrieved from https://er.educause.edu/~/media/files/article downloads/erm1543.pdf
[36] Anderson,T.,"Getting the mix right: An updated and theoretical rationale for interaction," IRRODL, vol.4,no.2, p.1-14