

Flexible Learning As Teaching Strategy In The New Normal Environment: Input To ISPSC Extension Program

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ABSTRACT

The Department of Education (DepEd) was caught off guard, just like many other institutions, by the sudden surge of the pandemic crisis. A flexible learning modality is implemented to continue the teaching and learning process in response to the difficulties brought about by the COVID 19 crisis. Hence, this study assessed the level of preparedness and competency of teachers in the four (4) integrated schools of Tagudin district, Tagudin, Ilocos Sur. The research design used was a descriptive–developmental design. Further, the study used mode and ordinal regression analyses to treat and interpret the data.

Teacher-respondents showed both high competence and preparedness in implementing flexible learning modalities. The result showed room for improvement to achieve competence and preparedness at their highest level. Finally, analyzing the significant differences across schools reflected that other schools are less competent and less prepared. These prompted the researchers to develop a strategic capability or retooling program on flexible learning to enhance the needed skills of the respondents for a more successful teaching-learning process in this new normal. This program is then recommended to be implemented as an extension program of the Ilocos Sur Polytechnic State College (ISPSC).

Keywords: Flexible learning, integrated school, competency, preparedness, capability program.

INTRODUCTION

The so-called “New Normal” environment brings uncertainties to the whole world. The universe was shaken, and everything was caught unaware of what was happening (Emines, et al., 2020). As everyone in the world is affected by this new normal brought about by the COVID 19 pandemic, the education sector is facing challenges on the many problems encountered in delivering instruction to the learners (Dhawan, 2020). To address the predicaments, authorities in

the education sector conducted a lot of webinars to abreast educators in this new normal situation. They introduced different teaching modalities and trained the teachers.

For the Department of Education (DepEd), there is an urgent need to explore different learning modalities that innovatively deliver quality education. Thus, there is a paradigm shift from traditional to flexible teaching and learning options. This is a critical condition for both educators and students. When choosing which learning modality is applicable and effective to the

students, there are many factors to consider when considering students' time, pace, and place.

The different integrated schools in the municipality of Tagudin, Ilocos Sur, are considering flexible learning to facilitate teaching and learning since the community quarantine suspended the usual face-to-face learning environment. Flexible learning is the design and delivery of programs, courses, and learning interventions that address learners' unique needs in terms of place, pace, process, and learning products. It involves the use of digital and non-digital technology. It further covers both face-to-face/in-person learning and out-of-classroom learning modes of delivery or a combination. Also, it ensures the continuity of inclusive and accessible education when the use of traditional modes of teaching is not feasible, as in the occurrence of national emergencies. (Handbook on Facilitating Flexible learning, <https://lite.unesco.org>).

Moreover, in the use of technologies to facilitate virtual classes, teachers and students lack awareness and skills in using different platforms and even manipulating their gadgets (Khan, et al., 2020). Further, both parties cannot troubleshoot problems that arise during virtual classes.

Therefore, attempting to analyze all the data needed on the implementation of the learning modality chosen by the integrated schools, the researchers will be proposing an enhancement or capability program based on the result of the study. Finally, the said program will improve the competency and preparedness of the teachers and students in the implementation of flexible learning techniques.

Review of literature

Several definitions and principles were published using different learning modalities as teaching strategies before and during this COVID 19 pandemic. One way to address the shift of traditional learning to another learning modality is by using flexible learning and emerging technologies.

Flexible Learning

In this flexible learning modality, the students choose when, where, and how they will learn. Hence, flexible learning looks into the pace, place, time, and mode of learning, eliminating barriers (Veletsianos, Kimmons, Larsen & Rogers, 2021). According to (Nash, 2018), **pace** encompasses accelerated and decelerated programs, part-time learning, recognition of prior learning, and associated credit frameworks. He further explained **place** to pertain to the physical location where learning takes place, whether in a classroom or at home, or in any place where learning can take place; mode is the use of technology to deliver learning whether fully online, blended, or technology enhance experiences.

Schooling can never be the same again due to the COVID 19 pandemic. Face-to-face classes during this pandemic are risky for both students and educators. Understandably, no one would like to be exposed to and worried about the conduct of a traditional learning environment; hence, schools need to offer feasible alternatives to deliver quality education (Ogena, Yeban, Balagtas, Benozza, & Atienza, 2020)

Amid pandemic struggles, the Commission of Higher Education (CHED) drafted guidelines on using flexible learning design as a teaching strategy in today's current situation. The first among the ten (10) general guidelines states that "considering that a flexible learning teaching and learning design perspective is deeply rooted in the needs of the students, the main objective is to provide learners with the most flexible on the learning content, schedules, access, and innovative assessment, making use of digital and non-digital tools" (Africa, 2010). The adoption of face-to-face and online instruction was already integrated across higher education with some scholars and referred to this as the "new traditional model" (Dziuban, Graham, Moskal, Norberg, & Sicilia, 2018).

The study of (Bergamin, Werlen, Siegenthaler, & Ziska, 2012) shows a positive result of flexible learning and its three factors; time management, teacher

contact, and content, on self-regulated learning strategies. The study further discovered that students with high learning flexibility indicated more learning strategies than a group with low learning flexibility. Another study (Kariippanon, et al. 2020) confirmed the previous study where learners have better results in English, Math, and Humanities subjects than in traditional learning types. Further, flexible learning spaces promote several choices leading to learners' ability to self-regulate, collaborate and interact (Kariippanon, Cliff, Lancaster, Okely& Parrish, 2017).

In general, there are several formulas to assess the success of flexible learning. According to (Widodo, Wibowo, &Wagiran, 2020), the readiness of the teachers and students the conduct online learning can be assessed through their skills in manipulating technology. Hence, there is a need to capacitate everyone involved to make it successful. In addition, the Information and Communication revolution shows a high impact on this teaching and learning modality. Moreover, its exponential growth of computing power naturally increases the expectation of learners to have a high-speed and reliable internet connection (Moran, 2013).

Moreover, (Dayagbil, Palompon, Garcia, &Olvido, 2021; Andrade & Alden-Rivers; 2019) explained that to continue teaching and learning in this time of the pandemic, the Department of Education has to recalibrate the curriculum, capacitate the teachers, upgrade the teaching and learning environment, and assess all the factors that make flexible learning successful.

Emerging Technologies

Online learning technology has a pivotal role in the teaching-learning process (Rafique, Mahmood, Warraich, & Rehman, 2021). The need for various Information & Communication Technology (ICT) tools such as laptops, tablets, cellphone, internet connections, software applications, and digital and non-digital storage is necessary for teachers and learners. These emerging technologies are essential to everyone, like

the 21st-century teachers who use them for easier information access (Ahmed, Quasem&Pawar, 2020 &Ratheeswari, 2018) and teaching preparation (Mormah& Bassey, 2021). Also, a study in Kazakhstan (Karabayev, 2015) revealed ICT usage in the educational process establishing teachers' axiological self-rating and system of axiological relations.

Further, asynchronous and synchronous teaching modalities are implemented. It entails that teachers, learners, and even parents must be prepared to use different communication tools such as online platforms, emails, group chats, and other means to transmit information and knowledge (Edwards, Shukor& Cheok, 2021). Thus, online participants' preparedness and competencies have to be upgraded to adapt to a new educational environment (Hussain, et al., 2017).

Despite this, reality says otherwise. Researchers found that many current teachers are computer migrants and varied age groups, leading to a negative attitude toward using these emerging technologies (Mwila, 2018; Role-Greenidge& Walcott, 2020). Additionally, several researchers mentioned obstacles like lack of training, lack of skills, lack of emerging technological materials, and lack of time that impede the proper delivery of flexible learning (Mirzajani, Mahmud, Ayub& Luan, 2015; Alkahtani, 2017; Saxena, 2017; Alvarado et al., 2020).

In addition, (Agaloos, 2020) stated that educators should enthusiastically embrace the new normal and cope with significant changes in the educational system in terms of instruction and communication to provide quality education during the pandemic. As a result, the primary agencies' mandated directives will be implemented and serve as a scholarly intervention for the long-term viability of teaching and learning within the context of the educational system.

The summation of the literature review presents better ways to innovate modalities for the new normal learning environment. Regardless of those favorable results, the result of this study could provide relevant data to assess the effectiveness of the

flexible learning modality with the important role of technology in the integrated schools in the context of teachers and students.

Objectives

In this study, the competency and preparedness for the use of flexible learning modality as a teaching strategy of the respondents were evaluated, and an extension program was developed to address the weak evaluation points of the said modality for the school year 2021 – 2022 of integrated schools in the municipality of Tagudin, Ilocos Sur.

Specifically, it intended to:

1. Assessed the level of competency of the respondents on the following:
 - a. Skills and competency level of teacher in technology;
 - b. Availability of resources and tools; and
 - c. Reliability of personal internet access.
2. Determined the level of preparedness of the respondents.
 - a. Activities and learning materials to accommodate varying student situations at home;
 - b. Assessment tools to accommodate distance learning;
 - c. Communication approach with the parent for feedback, monitoring, and assistance; and
 - d. Reference materials to enrich distance learning instruction.
3. Find out the significant difference in the competency level of the respondents across the institution.
4. Find out the significant difference in the level of preparedness of respondents across the institution.
6. Proposed a capability or retooling program after the study was done.

RESEARCH METHODOLOGY

Research Design

A descriptive research design was used in this study. A descriptive research design aims to identify characteristics, frequency, trends, correlation, and categories.

Specifically, this study is a developmental design. Developmental research systematically designs, develops, and evaluates studies like processes, instructional programs, and products that have internal consistency and effectiveness (Richey, 1994).

Sources of Data

The respondents of this study were the teachers in the senior high school of the six (6) integrated schools in the municipality of Tagudin, Ilocos Sur. For the content validity of the survey instruments, there were five (5) senior high school teachers outside the province who validated it. The instrument's reliability was tested by selecting 15 senior high school teachers outside the municipality of Tagudin, Ilocos Sur.

Instrumentation and Data Collection

A set of questionnaires for the respondents were formulated to gather the desired study objectives adopted from the lectures given in the webinar series, June 2020 on "Education Imperative for the New Normal Planning for Flexible Learning" (Ogena et al., 2020). The questionnaires were given to the respondents via printed copy and online. The said questionnaires were composed of three (2) parts. Part I dealt with the level of competencies of the respondents along the identified dimensions. Part II dealt with the level of preparedness of the respondents along the specified dimensions. The validity of the survey instrument for teachers' competency and preparedness has both k^* values equal to 1, described as excellent. At the same time, students' competency and preparedness survey instruments were also rated "excellent" ($k^*=1$, and $k^*=.97$). There is adequate reliability for teachers' survey instrument with Cronbach's alpha equal to .82 and 0.90 proper reliability of the students' survey instrument.

Analysis of Data

The data were gathered, tabulated, computed, and analyzed following the study's objectives.

The 5 - Likert scale questions for competencies and preparedness of the respondents were analyzed using mode. The Point Value

5
4
3
2
1

significant difference in the respondents' level of competencies and preparedness across institutions was determined using ordinal regression analysis.

Data Categorization

Level of Competencies and Preparedness

Descriptive Equivalent Rating

Very Highly Competent/Prepared

Highly Competent/Prepared

Moderately Competent/Prepared

Slightly Competent/Prepared

Not Competent/Prepare

RESULTS AND DISCUSSION

Level of Competency of Teachers in Flexible Learning as Teaching Strategy in the New Normal Environment

Table 1 presents the level of competency of teachers in the four integrated schools in the Tagudin district (mode = 4, n = 49) described as "Highly Competent". All latent variables on; skills and competency level in

technology, availability of resources and tools, and reliability of personal internet access are described as "Highly Competent". The Pudoc West Integrated School (PIS) posts the lowest mode of three (3) described as "Moderately Competent" in all of the latent variables. The indicators; troubleshoot fundamental technology problems and use assistive technology (Addins) to provide support to learners with special needs reveal a mode of three (3) described as "Moderately Competent".

Table 1. Level of competencies of teachers

1. Skills and competency level of teacher in the technology	AIS	LIS	GIS	PIS	Mo	DER
1.1. Navigate device interface comfortably	4	4	5	3	4	HC
1.2. Use multimedia technologies to deliver learning material in various formats.	4	4	5	3	4	HC
1.3. Troubleshoot basic technology problems	4	3	5	3	3	MC
1.4. Use features of the technology to enrich the learning process.	4	4	4	3	4	HC
Mode	4	4	5	3	4	HC
2. Availability of resources and tools						
2.1. Develop supplementary learning materials for the academic subject.	4	4	5	3	4	HC
2.2. Be updated with the core features of the device or platform that can be used in a subject.	4	4	4	3	4	HC
2.3. Use assistive technology (Addins) to support learners with special needs.	3	4	5	3	3	MC
Mode	4	4	5	3	4	HC
3. Reliability of personal internet access						

3.1. Work from anywhere and at any time.	4	4	5	4	4	HC
COMPOSITE MODE	4	4	5	3	4	HC
DESCRIPTIVE EQUIVALENT RATING	HC	HC	VHC	MC	HC	

Legend: DER – Descriptive Equivalent
HC – Highly Competent

VHC – Very Highly Competent
MC - Moderately Competent

This means that teachers in the four integrated schools of the Tagudin district need a capability program to upgrade their technical skills and knowledge and the reliability of technology tools to be used in this modality. It was found that teachers struggle with so many factors regarding the use of technology, affecting the quality of delivering information to the students. This made the teachers adjust and cope with the struggles and challenges brought by this new normal environment (Dayagbil et al., 2021). Teachers' competency in implementing flexible learning as a teaching strategy ensures learning quality (Bigatel, Ragan, Kennan, May, & Redmond, 2012).

Level of Preparedness of Teachers in Flexible Learning as Teaching Strategy in the New Normal Environment

Table 2 shows teachers' level of preparedness in flexible learning as a teaching strategy in the new normal environment is highly prepared with a mode of four (4). The indicator with a descriptive rating of "Moderately Prepared" is an assessment tool to accommodate distance learning with a three-mode (3). Further, the school of GIS has the highest mode equivalent to five (5) described as "Very Highly Prepared". All other schools have four (4) modes described as "Highly Prepared".

Table 2. Level of preparedness of teachers

Indicators	AIS	LIS	GIS	PIS	Mo	DER
1. Activities and learning materials to accommodate varying student situations at home.	4	4	5	3	4	HP
2. Assessment tools to accommodate distance learning	3	4	5	3	3	MP
3. Communication approach with the parent for feedback, monitoring, and assistance	4	4	5	3	4	HP
4. reference materials to enrich distance learning instruction	4	4	4	3	4	HP
MODE	4	4	5	3	4	HP
DESCRIPTIVE EQUIVALENT RATING	HP	HP	VHP	MP	HP	

Legend: DER – Descriptive Equivalent Rating
HP – Highly Prepared

VHP – Very Highly Prepared
MP - Moderately Prepared

This shows that many of the teachers of the four integrated schools have a high preparation to conduct online activities, monitor students' progress, and give online reference materials. However, many also are moderately prepared to assess students' performance.

This implies that even though the teachers are highly prepared to use flexible learning as their teaching strategy, there are other aspects that they struggle. Further, almost all PIS teachers have difficulty giving online activities, giving performance feedback of the students to their parents, monitoring their students' progress, and assessing students' performance. Moreover,

the assessment tool is a common problem among all the teachers of the four integrated schools. This further implies that a re-tooling program on assessing students' performance using different online assessment tools shall be conducted to capacitate them.

Significant Differences in the Level of Competency of teachers in Flexible Learning as Teaching Strategy in the New Normal Environment

Table 3 shows that the schools of AIS and LIS have a positive estimate value which means that their competency levels are higher than the competency level of PIS. Further, AIS is 7.24 times more competent than PIS, and LIS is 2.56 times more competent than PIS, but GIS (1.96E+10) shows a very high level of competency than PIS. Moreover, only AIS shows a significant difference ($p=.037$, $n=49$) in the level of competency compared to PIS.

Table 3. Significant differences in the level of competency of teachers across 4 Integrated Schools

Schools	Estimate	Exponential Value	p-value
GIS	23.74	1.96E+10	
AIS	1.98	7.24	.037
LIS	.940	2.56	.269
PIS	0 ^a		

Link function: Logit

a. This parameter is set to zero because it is redundant

Most of the four integrated schools of Tagudin, Ilocos Sur have different competency levels in implementing flexible learning as a teaching strategy. Competence in using this strategy will help the teachers disseminate learning information despite the lockdowns and unallowed face-to-face teaching-learning process brought about by the Covid 19 crisis. With this, there is a need to assess the needs of the teachers in doing flexible learning techniques to incapacitate them from doing online teaching successfully and thus ensure the quality of education (Bigatel et al., 2012).

Significant Differences in the Level of Preparedness of Teachers in Flexible Learning as Teaching Strategy in the New Normal Environment

It is shown in table 4 that teachers of the other three (3) integrated schools are more prepared than the teachers of PIS, as presented by their optimistic estimates. GIS has a significant difference in the level of preparedness of PIS by 55.15 times more prepared. There is no significant difference in the level of preparedness of AIS and LIS. However, AIS is 5.16 times more prepared, and LIS is 5.05 times more prepared than PIS.

Table 4. Differences in the level of preparedness of teachers across four integrated schools

Schools	Estimate(B)	Exponential Value	p-value
GIS	4.01	55.15	.001
AIS	1.64	5.16	.075
LIS	1.62	5.05	.063
PIS	0 ^a		

Link function: Logit

a. This parameter is set to zero because it is redundant

This means that AIS, LIS, and PIS have the same level of preparedness. The unexpected occurrence of the COVID 19 Pandemic

causes everyone to be unprepared. Many institutions like the Department of Education (DepED) had to resolve problems aroused by the effect of the pandemic. The abrupt shift from face-to-face teaching and learning to online learning made most teachers less prepared. (Natividad & Natividad, 2021) concluded that there are factors that made the teachers unprepared to conduct flexible learning modalities, like lack of technology skills. Further, the teachers' preparedness can be assessed through their coping strategies and be upgraded to the different skills needed to attain a successful teaching and learning process (Agaloos, 2020).

TECHNOLOGY CAPABILITY PROGRAM FOR PUDOC WEST INTEGRATED SCHOOLS' TEACHERS AND STUDENTS OF THE FOUR

INTEGRATED SCHOOLS IN TAGUDIN DISTRICT

Academic Year 2021-2022

The Ilocos Sur Polytechnic State College (ISPSC) - College of Arts and Sciences (CAS) will conduct a series of lectures and workshops on using technology to conduct online learning successfully. The undertakings will be conducted by the Bachelor of Science in Information and Technology (BSIT), Bachelor of Arts in English Language, and Bachelor of Science in Mathematics faculty.

A. CUSTOMIZED TECHNOLOGY CAPABILITY TRAINING FOR THE PUDOC WEST INTEGRATED SCHOOL'S TEACHERS OF THE FOUR INTEGRATED SCHOOLS IN THE TAGUDIN DISTRICT

a. Capability Training for Teachers

Topic	Brief Description	Schedule	Delivery / Participants	Persons Involved
Applications Troubleshooting Techniques	This module explains to the participants the basic troubleshooting techniques they can use to fix issues related to applications running slowly inside their computers.	Year-end INSET of Deped	Face-to-face Lecture with Hands-On (requires internet connection) Teachers	Engr. JACQUELINE G. GUMALLAOI ,(Facilitator) JONALYN T. SAD-AYAN-LACAMBRA, MAESL (Facilitator) GEORGE VILLANUEVA, DIT (Lecturer)
Chrome/Google Meet Extensions	This module teaches the participants how to select and install Google Chrome extensions to change the browser's functionality and make it more convenient for the user.	Year-end INSET of Deped	Face-to-face Lecture with Hands-On (requires internet connection)	Engr. JACQUELINE G. GUMALLAOI , (Facilitator) JONALYN T. SAD-AYAN-

			Teachers	LACAMBRA, MAESL (Facilitator) GEORGE VILLANUEV A, DIT (Lecturer)
Tools for Virtual and Distance Learning	This module demonstrates different tools to help the participants create remote learning experiences that keep students interested and active.	1 st Quarter INSET of Deped (September 2022)	Face-to-face Lecture with Hands-On (requires internet connection) Teachers	Engr. JACQUELINE G. GUMALLAOI , (Facilitator) JONALYN T. SAD-AYAN- LACAMBRA, MAESL (Facilitator) GEORGE VILLANUEV A, DIT (Lecturer)
Tools for Statistical analysis	This module prepares the participants to use offline and online tools to carry out statistical analysis of quantitative data.	1 st Quarter INSET of Deped (September 2022)	Face-to-face Lecture with Hands-On (requires internet connection) Teachers	Engr. JACQUELINE G. GUMALLAOI , (Lecturer – SPSS) JONALYN T. SAD-AYAN- LACAMBRA, MAESL (Facilitator) GEORGE VILLANUEV A, DIT (Lecturer – JAMOV / EXCEL)

**B. CLOSING PROGRAM (December
16, 2022)**

This is the end of the Technology Capability
Training Program for flexible learning as a
teaching strategy for the new normal
environment of the College of Arts and

Sciences to the four (4) integrated schools of Tagudin District. Awards and certificates will be given to the participants.

An assessment tool will also be given to all participants. The assessment result will be analyzed to determine the program's effectiveness and if its objectives were attained.

The closing program will be attended by the College of Arts and Sciences Dean, program heads, instructors, students and teachers of the four integrated schools, and other DepEd administrators in partnership with the DepEd Tagudin district.

CONCLUSION

The level of competency of the respondents manifested in their endeavors during the pandemic crisis. Teachers must be capacitated, especially when manipulating their devices and using technology for online learning. The respondents are not well prepared to conduct flexible learning. Many factors hinder the smooth flow of implementing flexible learning. However, their level of preparedness shows their struggles to adapt to the new normal environment and still deliver teaching-learning despite it.

The four integrated schools are less prepared and less competent than the other. A capability or retooling program is a strategy to enhance the needed skills of the respondents to make the teaching and learning process more successful using flexible learning as a teaching strategy in this new normal environment.

RECOMMENDATION

Based on the study findings, conducting a capability or retooling program for teachers is highly recommended. The identified factors that made the teachers and students have difficulty using flexible modality should be resolved by giving lectures, workshops, and training. These strategies could widen their knowledge and learn different technologies that will capacitate them in implementing flexible learning modalities.

In addition, other studies should be conducted using other research methodologies to determine other factors affecting the teaching and learning process during pandemic crises and develop solutions to address this identified factor.

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