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Utilization of Flexible Learning System in Teaching Physical Education in Pangasinan State University

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Abstract *– In response to the pandemic when face to face classes cannot be conducted, HEI's implemented flexible learning as a response to the COVID-19 pandemic to continue providing learning engagements among students. This study primarily aims to determine the flexible learning modes utilized by the faculty members teaching Physical Education subjects. The study will also determine the perceived extent of utilization towards the flexible learning modes utilized by the faculty members as perceived by the students of Physical Education and the problems and challenges encountered in the implementation of Flexible Learning at Pangasinan State University during the COVID 19 pandemic. A checklist and a questionnaire were utilized to gather the responses of the respondents of the study who were the faculty members teaching Physical Education subjects during the Covid 19 pandemic and their students. The study utilized the descriptive method of research utilizing survey and a five point Like-rt scale in determining the perceived extent of utilization towards the flexible learning modes utilized by the faculty members in teaching Physical Education subjects. Frequency counts and average weighted mean are utilized to determine the perceived extent of utilization of the students. Ranking is utilized to determine the problems and challenges encountered in the implementation of Flexible Learning. The study revealed that a greater majority of the faculty members who taught Physical Education subjects utilized online learning via Microsoft Teams, followed by using Google meet, Zoom and messenger group chat. The faculty members also utilized video recorded discussions and printed modules as part of the blended hybrid modes of instruction. The study revealed that the students perceived high extent of utilization along delivery of the lesson and assessment and evaluation. Both the faculty members and the students identified poor internet access as the most challenging problem in the implementation of flexible learning system along with limited availability of gadgets, limited competency of the faculty members in the use of ICT resources and the lack of availability of online resources to facilitate flexible learning. This study could give the HEI's feedback on making flexible learning more appropriate and responsive to the changing needs of the students. Innovative instructional materials in different modes can be developed to facilitate the teaching of Physical Education when face to face instruction might not be possible. Distance education whether offline or online can provide possible solutions when the identified challenges can be solved. Further study on the effectiveness of flexible learning in other areas of specialization in other parts of the country may provide a better perspective on the applicability of flexible learning in the academe.*

Keywords *– Flexible learning, On-line Instructional materials, On-line Learning, Internet Access, Teaching Physical Education*

INTRODUCTION

In response to the pandemic when face to face classes cannot be conducted HEI's implemented flexible learning as a response to the COVID-19 pandemic to continue providing learning engagements among students.

The Pangasinan State University, the only State University in Pangasinan in compliance with the CHED COVID Advisory No.6. "Sustaining Flexible Learning in Higher Education: An Addendum to CMO 4, series of 2020 implemented a flexible learning system based on the capability of the institution to comply with the advisory. In accordance with the pertinent provisions of Republic Act (RA) No. 7722, otherwise known as the "Higher Education Act of 1994", Republic Act No. 11469, otherwise known as the "Bayanihan To Heal as One Act", and by virtue of the Commission en Banc (CEB) Resolution No. 412-20220, series of 2020, the Commission on Higher Education (CHED) hereby adopts and promulgates the Guidelines on Flexible Learning (FL) to be implemented by public and private Higher Education Institutions (HEIs).

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The Commission in Higher Education (CHED) in the Philippines allowed higher education institutions (HEIs) flexibility in reducing the program requirements, without compromising the attainment of learning outcomes, and employ maximum consideration and leniency for students who have limited access to internet and education due to financial constraints caused by the pandemic.

Even before the pandemic, flexible learning has benefited students due to its convenient and accessible learning scheme and the freedom the students should decide on their learning pace, path, and place considering their learning styles and personal circumstances. Thus, students are empowered as they are active creators and sharers of knowledge through synchronous and asynchronous classes. Students can also interact with their teachers and seek technical support from school staff when needed. Thus, this type of learning also fosters positive relationships that further help students succeed in this kind of environment despite the independence that it promotes. Students are also provided more varied and personalized activities and materials and they enjoy deeper learning of concepts as they are engaged in activities that give them a glimpse of how a real workplace environment looks like and what attitudes their future career expects from them. Flexible online learning was seen to aid in achieving learning outcomes better and to satisfy the learners' needs.

However, this pedagogical innovation faces challenges to both teachers and students. While students are given more responsibility about their own learning, this method entails assumption of greater responsibility. Students may also experience difficulties choosing the best learning strategy and learning space for them, handling a lot of information, and understanding how to approach their school tasks independently. The students' computer literacy skills to thrive in an online learning environment can also be a hindrance as well as issues on students' access to technology also affect their ability to interact with their classmates and teachers. Interestingly, despite the range of choices that the method offers, some still prefer complementing flexible learning with traditional learning methods (face-to-face) or integrating blended learning to maintain close interaction between teachers and students.

With all the responses from the education systems to continue learning despite these uncertain times, there is a need to document the field experiences on the value and impact of existing open, distance, and flexible learning (ODFL) approaches to education through careful use of research tools methodologies because the more flexible the course is does not mean that it is more beneficial for the students. It is then important to consider the distance learners' preferences to cater their needs, especially in these extraordinary times. It is also important to assess the palpability of the flexibility offered and the effectiveness of this method in catering to the students' learning needs, particularly in the Asian and third-world context. Lastly, it is also important to reflect on the sudden changes in the PE model introduced due to the pandemic, learn from shortcomings, and upgrade digitization, hybridization, and accessible education to ensure equity.

Thus, this study identifies the Flexible Learning modalities utilized by the Physical Education faculty members of Pangasinan State University during the COVID-19 pandemic, it also determined the perceived extent of utilization by the students on the implemented Flexible Learning modalities along, delivery of the lesson and assessment and evaluation. It also determined the problems and challenges encountered by the Physical Education faculty and students in the implementation of Flexible Learning modalities in the Teaching of Physical Education courses in the university.

OBJECTIVES OF THE STUDY

This study on utilization of flexible learning system in teaching physical education in Pangasinan State University

Specific objectives:

1. What Online Application Software were most utilized by Physical Education faculty in Flexible Learning along Delivery of Instruction?
2. What Offline Learning Resources were most utilized by Physical Education faculty in Flexible Learning?
3. What are the student's perceived extent of utilization of Flexible Learning Application by Physical Education faculty in the teaching of Physical Education subjects along:
   a. Delivery of Instruction
   b. Assessment and Evaluation of Learning?
4. What are the challenges encountered by Physical Education faculty in utilizing Flexible Learning in the teaching of Physical Education subjects?
5. What are the challenges encountered by Physical Education students in utilizing Flexible Learning?

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MATERIALS AND METHODS

The research utilized the descriptive method in answering the research problems. An online data gathering instrument was used to gather the needed data for study. Frequency counts and average weighted mean were utilized to analyze the data gathered. Questionnaire with 5 points scale was used to determine the perception of the students on the flexible learning based on the indicators stated. Based on the analysis of data conclusions were arrived at and out of the analysis recommendations were made.

RESULTS AND DISCUSSION

Table 1
Online Application Software utilized by Physical Education Teachers in Flexible Learning along Delivery of Instruction
N=48

Application Software	Frequency	Percentage	Rank
Microsoft Teams	18	37.5	1
Google Meet	11	22.9	2
Zoom	8	16.6	3
Messenger Group Chat	6	12.5	4
Kahoot	1	2.08	7
Edmodo	1	2.08	7
Class Dojo	1	2.08	7
Khan Academy	1	2.08	7
Blackboard	1	2.08	7

The table shows the online application software utilized by Physical Education Teachers in Flexible Learning along Delivery of Instruction. Microsoft teams ranks first which has 18 respondents. Microsoft Teams is an application software that can create recordings of classes, meetings, presentations, training sessions, or other videos that can aid students and teachers in their team's collaboration. The software has the ability to organize organization-wide content with channels and search (discover) available videos. Google meet ranked second with 11 respondents, Google meet is formerly known as Hangouts Meet, it is mainly a video communication service developed by Google. Initially released in 2017, it can be run on Android, IOS and across web platforms. A faculty with google account can create video meetings and can invite up to 100 participants. Zoom ranked third and has 8 respondents, Zoom is a single app that combines team chat, phone, whiteboard, meetings and more. It allows a faculty to work from anywhere with ease. Faculty members can communicate easily with anyone on Windows, Mac or mobile devices. The free Zoom app lets faculty members host up to 100 students for video calls. Messenger group chat ranks fourth with 6 respondents, it is an instant messaging platform owned by Facebook and used by users of its platform. Messenger originally launched as Facebook Chat back in 2008 but was relaunched in 2010 to become a standalone application for iOS and Android devices. It is time-saving because materials are sent through a message instead of being distributed individually by the teacher. Students can be re-grouped easily; if a text proves too hard for a student, they can easily be allocated another one, or if a student arrives late, they can be easily given a text. Kahoot, Edmodo, Class Dojo, Khan Academy and Blackboard, were utilized by just one respondent and were ranked last. This implies that this online application software were rarely utilized by physical education faculty in flexible learning.

Table 2

Offline Learning Resources utilized by Physical Education Teachers in Flexible Learning

N=48

Offline Learning Resources / Material	frequency	Percentage	Rank
Printed Module	11	22.9	1
Textbooks	10	20.8	2
Learning/Study Guide	9	18.7	3
PowerPoint presentation	8	16.7	4
Video recorded discussion	7	14.6	5
Interactive Video presentation	3	6.25	6

On the Offline Materials utilized by the Physical Education Teachers in Flexible Learning, printed modules ranked first, these materials involve individualized instruction that allows learners to use Self-Learning Modules (SLMs) in print or digital format, whichever is applicable in the context of the learner, and other learning resources like learner's materials, textbooks, activity sheets, study guides, and

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other study materials. Textbooks rank second, these are materials that serve as a guide to the prescribed curriculum and syllabus. It transmits knowledge, skills, attitudes and values to the teacher and student alike. It provides guidelines for teaching and learning to faculty members and students. Ranked third are Learning/Study Guide, A study guide is an aid, usually in the form of printed notes, designed to assist students with their learning. It indicates what should be learned, how it can be learned, and how students can recognize if they have learned it. Study guides assist students' learning; they can highlight important concepts; they improve comprehension; they help students organize information; and they assist students' metacognition by enabling them to check for understanding, helping students know when to alter their reading rates, and assisting students. Followed by Powerpoint presentations, ranked fourth. PowerPoint can be used to prepare lectures and presentations by helping instructors refine their material to salient points and content. Class lectures can be typed in outline format, which can then be refined as slides. help create innovative ideas when students come up with creative and interesting slides to illustrate their talk. The use of presentation aids makes for a much more interesting talk, and the creation of such aids can help develop students' confidence. Ranked fifth is the utilization of Video recorded discussion/presentation. A video presentation is a digital presentation that uses video to communicate a message, it increases student engagement, which in turn helps boost achievement. If students are interested in the material, they will process and remember it better. Finally, the faculty members utilized Interactive Video Presentation, these materials permit user-driven decision-making and a sense of user control. This can enable a more personalized learning experience and greater choice for the learner. Videos can be structured to permit learners to select based on their role, staff level or knowledge gaps.

Table 3

Students Perceived Extent of Utilization of Flexible Learning Application by Physical Education Teachers in the teaching of Physical Education Subjects along Delivery of Instruction

N=960

Delivery of Instruction	Average Weighted Mean	Verbal Interpretation
Motivation of Learners	3.30	Moderate Extent of Utilization
Introduction of the lesson	3.00	Moderate Extent of Utilization
Presentation of the lesson	2.70	Moderate Extent of Utilization
Development of the lesson	2.40	Slightly Moderate Extent of Utilization
Lesson Summary	2.30	Slightly Moderate Extent of Utilization

On the students perceived extent of utilization of flexible learning application by the faculty of Physical Education in the teaching of Physical Education subjects along delivery of instruction, the students claimed to have " moderate extent of utilization in motivation of learners with an average weighted mean of 3.30; introduction of the lesson, 3.00; and presentation of the lesson with 2.70 and " less moderate extent of utilization" in development of the lesson with an average weighted mean of 2.40 and in lesson summary with an average weighted mean of 2.30. This implies that over-all, the students perceived the faculty of Physical Education to have moderate extent of utilization of flexible learning application software along delivery of instruction.

Table 4

Students Perceived Extent of Utilization of Flexible Learning Application by Physical Education Teachers in the teaching of Physical Education Subjects along Assessment and Evaluation of Learning

N=960

Assessment and Evaluation of Learning	Average Weighted Mean	Verbal Interpretation
Test and Quizzes	3.20	Moderate Extent of Utilization
Midterm Exam	3.10	Moderate Extent of Utilization
Final Exam	3.0	Moderate Extent of Utilization
Practicum	2.20	Slightly Moderate Extent of Utilization
Projects	2.10	Slightly Moderate Extent of Utilization

On the students perceived extent of utilization of flexible learning application by the faculty of Physical Education in the teaching of Physical Education subjects along assessment and evaluation of learning, the students claimed to have "moderate extent of utilization in administering tests and quizzes with an average weighted mean of 3.20; administering midterm

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exam 3.10 and in the administration of final exams with an average weighted mean of 3.00. The students claimed that the faculty members have "slightly moderate extent of utilization" in the administration of practicum with an average weighted mean of 2.20 and in the creation of projects with an average weighted mean of 2.10. This implies that as perceived by the students the faculty of Physical Education have "moderate extent of utilization" of flexible learning application software along assessment and evaluation of learning.

Table 5

Online Application Software utilized by Physical Education Teachers in Flexible Learning Along Assessment and Evaluation of Learning
N=48

Application Software	frequency	percentage	Rank
Google Form	19	39.58	1
Survey Heart	10	20.83	2
Menti	9	18.75	3
Performance Rubrics	7	14.58	4
Quizzory	1	2.08	6
Synap	1	2.08	6
Flexi Quiz	1	2.08	6

On the online application software utilized by Physical Education Teachers in Flexible Learning along assessment and evaluation of learning, Google form ranked first , this tool enables faculty members to create different questions, such as multiple choice, linear scale, check boxes, paragraph, short answer, and multiple choice grid, all customizable to suit the faculty's requirements. Google Forms can promote collaborative learning by allowing students to collaborate on quizzes and assessments. Educators can encourage collaboration and promote a more interactive learning environment by creating quizzes requiring students to work in pairs or groups. This was followed by Survey Heart Survey, ranked second. Survey heart is an easy-to-use survey tools for creating forms, polls, quizzes and questionnaire. It allows teachers to gather feedback and opinions from all the parties involved in the education process, from students to teachers. Menti ranked third, it is an app used to create presentation with real-time feedback. Faculty members can use Mentimeter as an asynchronous survey tool and allow students to vote to answer the questions of the faculty at their own pace by setting their presentation to Audience Pace. Performance Rubics ranked fourth, it is used to understand expectations and components of an assignment, a project or a performance task. It provides students with valuable information about the degree of which a specific learning outcome has to be achieved. Lastly, the Quizzory, Synap and Flexi Quiz were ranked last with only one faculty member utilizing these applications along assessment and evaluation of learning.

Table 6

Challenges Encountered by Physical Education Faculty in utilizing Flexible Learning in the teaching of Physical Education Subjects
N=48

Challenges	Frequency	percentage	Rank
Poor internet access	20	41.67	1
Limited competency of faculty in the use of ICT Resources	8	16.70	2
Lack of availability of online resources to facilitate flexible learning	7	14.58	3
Limited competency of faculty members in the production of Flexible learning materials	6	12.50	4
Shortage of digital devices	1	2.08	8
Frequency of power interruption	1	2.08	8
Distractive learning environment	1	2.08	8
Expensive internet data	1	2.08	8
Health related problems	1	2.08	8
Loss of motivation	1	2.08	8
Lack of digital literacy	1	2.08	8
Digital divide	1	2.08	8

On the challenges encountered by Physical Education Faculty in utilizing Flexible Learning in the teaching of Physical Education subjects, poor internet access ranked first, followed by limited competency of the faculty in the use of ICT resources, ranked third is lack of availability of online resources to facilitate flexible learning and fourth, the limited competency of the faculty members in the production of flexible learning materials for both online and offline resources. Followed by the shortage of digital devices, frequency of power interruption, distractive learning environment and expensive internet data. Lastly, health related problems, loss of motivation, lack of digital literacy and digital divide was ranked last by the faculty members.

Table 7

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Challenges Encountered by Physical Education Students in utilizing Flexible Learning
N=960

Challenges	Frequency	percentage	Rank
Poor internet access	401	41.78	1
Limited competency of faculty in the use of ICT Resources	160	16.67	2
Lack of availability of online resources to facilitate flexible learning	144	15.00	3
Limited competency of faculty members in the production of Flexible learning materials	120	12.50	4
Shortage of digital devices	20	2.08	5
Frequency of power interruption	19	1.97	6
Distractive learning environment	18	1.88	7
Expensive internet data	17	1.78	8
Health related problems	16	1.67	9
Loss of motivation	14	1.46	10
Lack of financial resources	12	1.25	11
Lack of digital literacy	10	1.04	12
Digital divide	9	.94	13

The students also considered poor internet access as the first among the challenges encountered by the students in flexible learning, followed by lack of availability of online resources to facilitate flexible learning and ranked third is the limited competency of the faculty in the use of ICT resources and their competency to produce flexible learning materials. Followed by the shortage of digital devices, frequency of power interruption, distractive learning environment and expensive internet data. Lastly, health related problems, loss of motivation, lack of digital literacy and digital divide was ranked last by the students.

CONCLUSION AND RECOMMENDATION

Conclusion

The study revealed that a greater majority of the faculty members who taught Physical Education subjects utilized online learning via Microsoft Teams, followed using Google meet, Zoom and messenger group chat to facilitate flexible learning. The faculty members also utilized video recorded discussions and printed modules as part of the offline modes of instruction. The study revealed that the students perceived moderate extent of utilization of flexible learning along delivery of the lesson and moderate extent of utilization in the assessment and evaluation of learning. Both the faculty members and the students identified poor internet access as the most challenging problem in the implementation of flexible learning system along with limited availability of gadgets, limited competency of the faculty members in the use of ICT resources and the lack of availability of online resources to facilitate flexible learning.

Recommendations

Based on the conclusion and findings of the study, the following recommendations regarding the utilization of flexible learning system in teaching physical education are made:

1. The implementation of a faculty enhancement program on the utilization and production of online materials and software. The enhancement program will focus on the competency of the faculty members to use appropriate application software in the teaching of Physical Education and the enhancement of the competency of the faculty in the production of flexible learning materials to be utilized in the teaching of Physical Education subjects. Emphasis will be given along development of the lesson and lesson summary and along assessment and evaluation of learning.
2. The provision of infrastructure facilities that can support fiber optic/broadband capability to facilitate flexible learning and online access among faculty members and students in the different campuses of the University.
3. The provision on an off-campus internet hub to help students who have shortage of digital gadgets and limited financial capabilities to access the internet for flexible learning purposes.
4. The provision of laptops, tablets and internet cards to deserving students who lack the financial capability to purchase the needed digital devices and internet data to participate in the flexible learning.

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