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ABSTRACT

This study aimed to assess the initial implementation of the Flexible Learning Modality of Pangasinan State University Lingayen Campus during the School Year 2020-2021. It explored on the issues and challenges faced by both teachers and students during flexible instruction. Using extracts from the responses of teachers (n=123) and students (6370) in the survey questionnaire, the findings showed that an unstable, weak and poor internet connection and no comfortable teaching and learning spaces at home appear to pose as greatest barriers for online learning to both the faculty and students. Further, the study noted that PSU was quick to implement an online learning platform but found that the gadgets available for use by a number of the respondents could not run the app or at least run its full features, and which led to another challenge found on the difficulty to download teaching and learning resources using the software. The researchers concluded that the PSU Lingayen Campus was prepared in aspects under its control including provision of and orientation to online platforms, and plans to provide printed guides, but have an understandable lacking on challenges met including teaching and learning spaces, poor internet connection, and the capacity to purchase mobile load as means of students to attend classes online. The researchers recommend periodic assessment of the PSU's policies for Flexible Learning to provide continued and improved service delivery for both the faculty and students.

Keywords: COVID-19 Impact, Education, Flexible Instruction, Flexible Instruction, PSU

INTRODUCTION

We were never ready because we were never prepared for such a magnitude of academic disturbance as that which was brought about by the COVID-19 pandemic (Nadiahan & Cabauatan, 2021; Çalık & Altay, 2021; Mustapha & Kurt, 2021). Institutions of higher learning, which are meant to produce professionals who must be ready for the changing times, are not spared from its effects. The COVID-19 pandemic could be considered the 'largest discriminative' of who could go to school and who could go to school 'later' or not at all. It appears that rich or poor students now from the basic to higher education, learn behind 'screen'. As Bhaumik & Priyadarshini (2020) observed that the sudden shift from classroom-based conventional learning to online learning provided 'little or no time' to both teachers or learners to prepare themselves. Bakibinga-Gaswaga et al (2020), in a commentary, pointed out that the gains seen thus far after the adoption of the 2030 Sustainable Development Goals will be lost if the threats presented by the COVID-19 pandemic are left uncountered in a timely manner.

How has this situation changed the education landscape after a year? Based on the Conference Report of UNESCO during its 'One year into COVID: Prioritizing education recovery to avoid a generational catastrophe' held online on March 29, 2021, there are three themes of foremost concern on policy agendas: reopening of schools and supporting teachers; mitigating drop out and learning losses; and accelerating the digital transformation. The said report revealed that the majority of governments (133 countries) provided a mix of online, television and radio solutions to ensure learning continuity, in order to provide a strong ground to build more resilient education systems and bridge the digital divide. While COVID-19 has already become a street term, UNESCO has claimed that we are just beginning to obtain a global picture of learning loss. In the said report, they mentioned the study of UNESCO Institute for Statistics, that reported a projection of 100 million children and youth to fall below proficiency level in reading because of COVID-19.

In the Philippines, the Commission on Higher Education (CHED) was quick to disseminate Advisory No. 2 dated March 11, 2020, that contained emergency plans for all Higher Education Institutions, or HEIs, based on the guidelines set by the World Health Organizations (WHO) and the Philippine's Department of Health (DOH).

Same Advisory suspended all classes in all levels in Metro Manila – the very first class suspension made in the country due to the threat posed by the then un-mutated form of the 2019-nCoV ARD or 2019-Novel Coronavirus Acute Respiratory Diseases.

On the same day and with a different Advisory (No. 3), CHED stipulated that based on the assessment of the ‘situation’ in their (i.e. the HEIs) localities and their exercise of academic freedom, HEIs should, among others, deploy available distance learning, e-learning and other alternative modes of delivery in lieu of residential learning.... With this, the Pangasinan State University deployed its Flexible Learning Program to continue with its instructional services to students while providing utmost care for the safety of all its employees and students. In response to this mandate, this study assessed the implementation of the Flexible Learning Modality in Pangasinan State University, Philippines using initial data on the teaching and learning environment of both the land from the faculty members and students.

Therefore, considering the above and the importance of the subject, the present study is conducted with the aim of The Ecosystem of Online Learning in the Philippine Setting: A Case of Pangasinan State University.

MATERIALS AND METHODS

Research Design

This study employed descriptive-status type of research because (descriptive) it attempts to observe and measure the characteristics of the research participants without any form of intervention or manipulation to any prevailing conditions that affect them but (status) with possibility that these characteristics maybe different with other populations and with the fact that these characteristics are present to the population under the study and during the data-gathering period. The sampling technique employed is simple random sampling for convenience and for wider geographical reach especially at a time when mobility of researchers is limited or restricted by Philippine IATF guidelines relative to the control of covid-19 pandemic (Camara et al., 2020).

Participants

Participants were the faculty members and students of PSU Lingayen Campus. The instruments were administered digitally via google forms to the respondents through the Office of the Vice-president for Academic and Support Services, or OVPASS, and its constituent officers or coordinators in respective campuses.

Data Collection Tools

The use of dichotomous survey questions and short essay questions provided considerable data on the initial assessment of the implementation of Flexible Learning in the main campus of the Pangasinan State University (Lingayen Campus).

Data Analysis

Data-collection was conducted during the 2nd half of the 1st semester of School Year 2020-2021, which officially ended 3 months after. After data-collection, data were tabulated and arranged based on parameters, and were subjected to relevant descriptive statistics.

RESULTS AND DISCUSSION

Teaching Environment Factors For Online Instruction (TEFOI)

The respondents were asked to report the following parameters: Internet Connectivity Issues, Learning Management System Account, Microsoft Teams Literacy, Teaching and Learning Environment, and Cost Analysis. These parameters were taken into consideration by the researchers because such would directly impact the implementation of Flexible Learning, and an initial assessment would help in crafting an evolving instructional policy. All these parameters were considered as Teaching Environment Factors for Online Instruction, or what the researchers coined as TEFOI and are all reported in Table 1. It should be noted that discrepancies on the actual number of responses and actual number of faculty teaching in respective colleges could have been caused by multiple subjects taught.

Table 1: Frequencies and Percentages on the Variables for the TEFOI - Faculty

Variables for the TEFOI	Total			CE		CHM		CASL		CT		CCS		CBPA	
	Univ	LC	%	f	%	f	%	f	%	f	%	f	%	f	%
Unstable, Weak and Poor Internet Connection	598	118	19.73	23	19.49	44	37.28	17	14.41	3	2.54	16	13.56	15	12.71
Incidence of Power Interruptions	471	88	18.68	3	3.41	27	30.60	17	19.32	4	4.55	19	21.59	18	20.45
Difficulty Downloading Teaching Resources	498	97	19.48	12	12.37	28	28.87	19	19.59	7	7.22	17	17.53	14	14.43
Learning Management System Account	30	25	83.33	0	0.00	12	48.00	0	0.00	0	0.00	10	40.00	3	12.00
Literacy on the Use of the LMS/MST	354	75	21.19	2	2.67	16	21.33	19	25.33	5	6.67	24	32.00	9	12.00
Teaching Spaces at Home	615	123	20.00	15	12.20	27	21.95	15	12.20	5	4.07	52	42.28	9	7.32
Cost Analysis of Alternatives	463	88	19.01	12	13.64	29	32.95	19	21.59	5	5.68	13	14.77	10	11.36

Legend: CE – College of Education; CHM – College of Hospitality Management; CASL – College of Arts, Sciences and Letters; CT – College of Technology; CCS – College of Computing Sciences; and, CBPA – College of Business and Public Administration

On Unstable, Weak and Poor Internet Connection

In terms of Interconnectivity Issues, findings showed that 118 of the respondents from the 598 responses (19.73%) were faculty members from the Lingayen Campus who experienced unstable, weak or poor internet connection, with respondents from the College of Hospitality Management, CHM, having the highest number of affected faculty members and students (44, 37.28%). The College of Technology had the least number of faculty members who experienced unstable, weak or poor internet connection (3, 2.54%), during the initial assessment. ... This problem poses threat to students and teachers as the lack of access to fast, affordable and reliable internet connections could hinder the process of online learning (Wains & Mahmood, 2008) and accessibility of the e-platforms such as Learning Management System (Kanwar, Carr, Ortlieb, and Mohee (2018).

On Incidence of Power Interruptions

What makes this experience by the faculty members even more uncontrollable is issues on power interruption. There were 88 PSU Lingayen Campus faculty responses from the 471 responses (18.68%) who experienced power interruption while holding online classes. The College of Hospitality Management report the highest incidence of power interruption which they experienced (27, 30.68%) and with the College of Technology reporting the least incidence (4.55%). These uncontrollable issues on power interruption do not just affect the faculty in holding their classes but also the learners. The study of Bhagat, S. and Kim, D.J. (2020) reports that learners can't fully be benefitted from the lessons aired due to electricity power outages or worse when outage takes longer, missed the educational lesson that certain day or time.

On Difficulty Downloading Teaching Resources

With unstable, weak and poor internet connection and incidences of power interruptions, this led to another factor – the difficulty of downloading teaching and learning materials from the Learning Management System employed by the University for its Flexible Learning Modality. Findings revealed that 97 (19.48%) of the 498

respondents reported this difficulty, with the CHM having the most affected faculty (28, 28.87%) and the College of Technology as the least affected (7, 7.22).

These increasing numbers or frequencies from unstable, weak and poor internet connection, to cycles of power interruptions incidences, and to the difficulty of downloading teaching and learning materials show a pattern – a pattern of increasing challenge. It appears that an unstable, weak and poor internet connection affected the online classes of the PSU Lingayen Campus with incidences of power interruptions making it even problematic.

On the Learning Management System Account

In terms of the provision of Learning Management System (LMS), findings reported were remarkable. Even at the initial implementation of Flexible Learning Modality of the University, only a small number did not have an account at the online learning portal (the LMS) for faculty. Data showed that the College of Education, the College of Arts, Sciences and Letters, and the College of Technology have 100% provision of faculty with their LMS Account. Meanwhile, other institutions perceived and experienced problems on the transition to remote learning/teaching due to unpreparedness, lack of formal training and experience on e-learning platforms (Agormeda, E.K. et al, 2020).

On Literacy on the use of the LMS

While it is true that almost all the faculty had been provided with an account in the LMS, the challenge to utilize it during online class appeared as another challenge. Of the 354 responses from the University which had issues on their LMS literacy, 75 of these (21.19%) were from PSU Lingayen Campus. The College of Computing Sciences had the highest number of responses which reported difficulty on the use of the LMS (i.e. the Microsoft Teams) and with the least number from the College of Education (2, 2.67%). Literacy on the use of LMS and other ICT applications remained to be one of individual challenges faced by students and faculty in Distance Learning (Musingafi, M.C.C. et al, 2015).

On the Teaching Spaces at Home

The Teaching and Learning Environment could affect both the faculty members and students whether the internet connection is poor or whether or not they are skilled in using the Microsoft Teams. When asked whether they have a ‘comfortable’ teaching and learning space at home for online class, 20% (123 of 615) answered a ‘no’. The College of Computing Sciences had the highest number of faculty respondents with no comfortable teaching and learning spaces at home (52, 42.27%) with the College of Technology reporting the least number (5, 4.07%). On the LEFOI presented in this study, this is the most pressing issue during the initial assessment on Flexible Learning Modality at the PSU LC. Further, data revealed a number of responses when asked whether they have a ‘noisy’ environment (i.e. house or neighborhood as a normal scenario). The College of Computing Sciences reported the highest number of affected faculty (29, 35.37%) and with the College of Technology reporting the least number (2, 2.44%). This result is not overwhelming as several studies found the same results just like the study of Bhagat, S. and Kim, D.J. (2020) where they concluded that home environment is not fully prepared to help children develop their education away from school. In addition, Hernandez, L.R. (2021) found that teachers also experienced problems and challenges related to teaching spaces at home such as lack of focus due to work-related and home-related activities.

On the Cost Analysis of Alternatives

Given that this Flexible Learning Modality, though not new in theory, is fully implemented in the University and all its component campuses, there were issues that could not be addressed at once at its experimental stage, including the alternatives did by both faculty to attend online classes including their purchase of pre-paid load (i.e. for those who did not have fiber connection). PSU Lingayen Campus had 88 responses when asked whether their pre-paid load is considered ‘costly’, this is 19.01% of the sampled population. Of this number, the College of Hospitality Management reported the most number (29, 32.95%) and with the College of Technology with the least number (5, 5.68%). If teachers could find this costly, what more do we expect from students who are not yet earning. Bhagat & Jim (2020) noted that the pandemic has severely affected the household financial situation of most new and current college and university students, and the cost of mobile data purchase in this present study would cost extra strain on their resources even more. Further, he quoted Goebel & Hoover (2020), saying that even well-resourced institutions are unable to accurately predict student enrolments and this too could make the situation worse for the educational institutions.

Learning Environment Factors For Online Instruction (Lefoi)

The researchers also included the experiences in the perspective of the students. The factors that could affect the implementation of the Flexible Learning Modality were grouped into either Flexible or Non-Flexible. By ‘flexible’, this element will help push through with the implementation while by ‘non-flexible’, the element has

the potential to retard the implementation. All these elements could affect the Learning Environment for Online Instruction of the students, and are all reported in Table 2.

Table 2. Frequencies and Percentages on the Elements for the LEFOI (n=6,370)		
Elements to affect Flexible Learning of Students	f	%
Flexible Elements		
Use of mobile data in mobile phones	4046	63.52
Provision of Printed Study Guides	2993	46.99
Internet Connectivity at home (Fiber connection) is available.	2228	34.98
Gadgets (Laptops) match system requirements of MS Teams	1062	16.67
Use of pocket wifi in mobile phones	599	9.40
Average	2186	34.31
Non-Flexible Elements		
Unstable, weak, and poor internet connection	3822	60.00
Costly purchase of mobile load for data	3547	55.68
Difficulty in downloading learning resources	2899	45.51
Noisy surrounding (home or neighborhood)	2635	41.37
Stress brought about by volume of requirements	2554	40.09
No comfortable learning space at home	2310	36.26
Intermittent power interruption	1729	27.14
Difficulty on the use of MS Teams	1659	26.04
Interruption because of household chores	1490	23.39
Cellphone do not match system requirements of MS Teams	999	15.68
Use of internet from neighborhood (not home-based)	708	11.11
Non-fiber internet and non-mobile cellphone data	656	10.30
No LMS (MS Teams) account yet	131	2.06
Average	1934	30.36

On Flexible Elements for Flexible Learning Modality

During the time of data-collection, there were 6, 370 officially enrolled students. Of this number, there is an average of 2186 (34.31%) students who could be 'ready' for flexible learning because they have internet or fiber connection at home (34.98%) or at least they claimed that they could at least use mobile data to attend online classes (64.52%) or are at least thinking of using printed study guides to continue with their education (46.99%). This latter solution of printing study guides could pose another issue however of funding. Dangle & Sumaong (2020) noted that lack of school funding in the production and delivery of modules was one of the main challenges in the implementation of modular distance learning in a sample Philippine secondary school.

On Non-flexible Elements for Flexible Learning Modality

Aside from flexible elements, there were elements which the researchers considered non-flexible, as they could potentially retard (or even stop) flexible learning implementation which the findings revealed to be, on average, 1934 students (30.36%). Data showed that unstable, weak and poor internet connection (3822, 60.00%) remains to contain the highest number of student, i.e. ranked as the most concern. Similar with the findings about faculty, a very small percentage of the students had no Learning Management System (LMS) yet during the period of data-collection (131, 2.96%). Despite this, a huge number of those students with LMS account already still had trouble on its use (1659, 26.04%) for example in downloading learning resources from the Microsoft Teams itself (2899, 45.51%). What makes this uncontrollable scenario worse is when students, being available at home, are asked to do household chores while attending classes online (1490, 23.29%). This number does not include yet those students who are disturbed by noisy environment or neighborhood (2635, 41.37%), or those who simply do not find learning at home comfortable (2310, 36.26%), and even if they do have comfortable learning space, still the issue that their gadgets (i.e. cellphones) do not have features that match the system requirements (999, 15/68%) of Microsoft Teams still persists. These numbers tell us that these elements could potentially retard the implementation of Flexible Learning at its initial phase. In fact, Ionescu et al (2020), in their analysis of the sustainability of the e-learning system implemented in Romania, they included three groups

of respondents: teacher, students and parents. Parents are very important in order to obtain a wider perception of the online teaching system and distance learning, for example, how could students learn from a prepared teacher, when parents would always ask their children to do household chores during online learning. To make a policy on flexible learning sustainable is to obtain perspectives from the teachers, students and parents.

CONCLUSION

Higher Education Institutions could have been struck by surprise when, unknowingly, education was confined in computer screens. Undoubtedly, this covid-19 pandemic kept us all segmented if not totally isolated. The Pangasinan State University is no different from all those institutions of learning who needed to design ways to push through for the continuity of education to the young generations. The Lingayen Campus, as its main campus, needed to keep up with all the others in implementing what has been called the Flexible Learning Modality (FLM).

In its aim to provide better service delivery for its clients and other stakeholders, the need to conduct an initial assessment of its FLM implementation is inevitable. These findings could help establish a sound philosophy in designing instructional policies, even at its experimental stage, because as of today – not one has made it at the end of the process of perfect policy yet. The finding in this study that ‘unstable, weak and poor internet connection’ is a factor or element that could hamper, or retard flexible learning is a very common problem already, even kids will know about it. This issue could imply the non-perfection yet of our ‘digital’ engineers on the science of signal reception, but more so, it obviously means this issue still exists and will continue to exist with this type of teaching and learning modality. There is an issue on the concept of ‘flexibility’, however. What could be done when internet connection is not flexible is an issue of doing things the ‘written’ way, like when study guides could be printed and distributed to students.

The finding in this study that showed a considerable number of faculty members without comfortable teaching spaces at home should impress upon us that learning is supposed to occur in classrooms, not to mention the basic principle that our homes should be the comforts of our family without our works interrupting this smallest unit of society. Similar finding is conclusive about the students with this concern affecting a third of their entire studentry. In the long run, whether the Pangasinan State University and all other institutions of higher learning, could perfect online instruction in the future, how are we supposed to think that teaching and learning spaces could have been improved by then? This issue should not concern us anymore, but still it poses a threat to flexible instruction.

The finding in this study that faculty members and students were each given an account in the implemented online learning portal is quite remarkable, and its truest sense, a clear display of the administration’s quest for continuous and better service delivery. However, this too, is confronted with two significant issues: faculty members and students reported difficulty in its utilization, and if they ever become digital literate in its use, the ‘unstable, weak and poor internet connection’ will once again pose a threat in the difficulty in downloading both teaching and learning resources. Truly, not one policy will ever be perfect for all types of stakeholders, but we could make it more appropriate for the very students we presently serve. The researchers, nevertheless, recommend for the periodic assessment of the flexible and non-flexible elements for instruction in order to eliminate potential threats to the FLM implementation, thus, finding sustainable measures of this Approach.

LIMITATIONS

This article reported the initial assessment of the Flexible Learning implemented by the Pangasinan State University a few months after the Philippine’s Commission on Higher Education issued Advisory No. 3 dated March 11, 2020. Reports on post-implementation are not included in this report.

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