Open and Distance eLearning Readiness of a State University Graduate Students

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Abstract

This paper explored the readiness of the Graduate Students of Pangasinan State University Open University Systems (PSU OUS) to adapt an open and distance learning environment. It also described the story of the PSU OUS and the Province of Pangasinan in embracing the concept of Openness. The study measured self-direction, learning preferences, study habits, technology skills, and computer equipment capabilities of the respondents in terms of readiness as a graduate student. The respondents were the teachers of the Department of Education and other primary school teachers from distant parts of the world who were currently enrolled in PSU OUS taking up Masters or Doctorate degrees. Qualitative methodology was used in data collection techniques. The results of the study indicated that graduate students had a positive attitude towards ODeL. It was recommended that a virtual learning environment be proposed for the benefit of the teachers, the graduate students, and the institution and for contribution to the development of ODeL in the Philippines. It is evident in the Philippines that students and teachers are ready and competent enough to contribute to the changing environment of education.

Keywords: *Pangasinan, State University, ODeL, readiness.*

Introduction

Recent developments in technology provide an overwhelming growth to distance learning in different countries which contribute to the acceleration of education for all. The changing environment encourages educational institutions to seek additional platforms to continue to provide quality education. Open and distance e-learning (ODeL) is a way of delivering education through the use of technology, such as the interconnected network.

The Pangasinan State University (PSU) established the Open University Systems (OUS) in the latter part of the year 1996. It was launched at the Lingayen Campus in March 1997. The establishment of the OUS was born out of the need to respond to the unique requirements for further professional and technical development of career people, administrators and managers, technicians, and workers who may have limited time or opportunity to attend or perform at a regular class in the university. At the moment, the OUS still administers a hybrid of open learning systems, composed of 50% distance education mode and 50% face-to-face mode. PSU OUS now faces a transition period to embrace technology and adopt the practice of real online education.

In more than 20 years of existence of the PSU OUS, now is the time for it to adopt a platform suitable for building a virtual learning environment. Dr. Melinda dP. Bandalaria, Chancellor of the University of the Philippines Open University (UPOU), stated during the first MoodleMoot in the Philippines that you cannot adopt Openness without adopting Moodle as a learning management system (LMS) platform. UPOU, as pioneers in open and distance education and Massive Open

Online Courses (MOOC) in the Philippines, is following the footsteps of several top universities worldwide. It is, indeed, a giant that assists and provide expertise to the Commission on Higher Education (CHED) and the Technical Education and Skills Development Authority (TESDA) in the performance of its functions pursuant to Section 14 of RA 10650 (Official Gazette of the Republic of the Philippines, 2014). Several studies conducted in the institution aimed to achieve Openness in OUS through efforts such as the use of Google Suite application and social media. However, because of the problems encountered during implementation, the institution has failed to reach total Openness to this date, resulting to the implementation of blended learning instead of the targeted total open online learning and thus this is a timely study to determine the readiness of the PSU OUS.

Objectives of the Study

This study aimed to answer the following questions: (1) What is the profile of the respondents in terms of: age, sex, program, level of educational attainment, licensure examination passed, area of expertise, field of specialization, years of teaching, and rank and grade levels? (2) What is the level of readiness (Williams, 2018) of OUS graduate students for ODeL in terms of self-direction, learning preferences, study habits, technology skills, and computer equipment capabilities? and (3) Is there a significant relationship between the level of readiness in ODeL and learning across the profile of the respondents?

Significance of the Study

ODeL is the future of learning. It can make learning happen faster and more efficiently while still considering the own pacing of the student. It is convenient to both learners and teachers. Considering these advantages of ODeL, it was found that it is essential that the province of Pangasinan be ready to adopt the change in technology. Despite of the reality that the Philippines still has ways to go in terms of technology (i.e., Internet connectivity) (Becker, 2002), the researchers acknowledge that readiness to adapt new technologies and innovations is essential for preparation for integration with ODeL. This study is significant to determine the readiness of the graduate students in the Province of Pangasinan. It is a basis for the implementation of a comprehensive learning management platform and virtual learning environment.

This study may benefit not only OUS as an institution but also other universities in determining if graduate students are ready to adapt ODeL. This study is an eye-opener for the OUS administration and can be a basis for other distance learning institutions in implementing and adopting LMS. Moodle is defined as "a learning platform designed to provide educators, administrators, and learners with a single, robust, secure, and integrated system to create personalized learning environments" (Dougiamas & Taylor, 2003). There are several studies conducted related to LMS, and truly Moodle is the best, if not the only option for LMS. The study of Melton (2006) entitled "The LMS Moodle: A Usability Evaluation" examined the process and different module function on the usability. The platform is considered as the one that fitted the needs for ODeL (Kumar, Gankotiya, & Dutta, 2011) based on the comparative studies.

Online Learning in a Region in the Philippines

Based on the experience of PSU OUS, online learning employs a module-based learning approach. The module is used for self-learning until such time as technology arises. In the year 2012, a Moodle LMS was tested by the Webmaster of the OUS, but due to the lack of manpower, the LMS was not maintained and only tested one Computer Subject. Based on the experience of the tester, Moodle LMS was very useful in addressing the need for online learning. In the year 2016, a new executive director approved the utilization of Google GSuite Applications such as Google Classroom, Hangouts and other application by Google. While the GSuite application has an excellent contribution to the blended learning approach, the functionality is very much limited and cannot accommodate the overall need of the Open University Systems. In the present year, the current web administrator proposes the use of Moodle as an eLearning Platform, and it is pending for the implementation. In the year 2018, based on the benchmarking report from several Open University in the Philippines, the PSU Open University planned to adopt the practice of Openness in education. Thus, the Pangasinan State University includes plans to adopt Moodle as its LMS platform.

Research Methodology

In this research study, the researcher adopted the quantitative method of research. It used the survey as a method of data collection in the form of questionnaires because it yielded information that was more systematic for all participants.

Sources of Data and Processing

The graduate students of PSU OUS for the SY 2017-2018 were the sources of data for this study. The PSU OUS had a total of more than 400 students for the SY 2017-2018. PSU OUS was one component of PSU that offered Masters and Doctorate degrees in Pangasinan. All of students of PSU OUS who were also educators were invited to participate in the survey. Purposive sampling based on characteristics of a population and the objective of the study was used.

Participants were requested to complete the survey within one term from the date of the issuance. The researcher shortened the link using bit.ly and posted it in all the Google Classroom class newsfeed. The survey questionnaire was floated using Google Forms, and extracted in CSVKit for analysis. The gathered data was analyzed using a spreadsheet which automatically created a graphical representation of the result.

Statistical Treatment Used

Frequency and Percentage were used in the first and second problems which were about the profile of the respondents and the readiness of the graduate students and grade teachers. Average weighted mean was also used in determining the interpretation based on the Likert rating scale used.

For the last problem, Pearson correlation was used to measure significance at the 0.05 level (2-tailed). In order to simplify statistical computation, all data was inputted into the software SPSS for faster analysis of data.

Results and Discussion

Results generated by the Google Forms and extracted to CSV format showed that both graduate students and teachers had a positive attitude towards ODeL. It was recommended that a virtual learning environment should be implemented for the benefit of the teachers and graduate students.

Table 1: Profile of the Respondents

Variables	Categories	Frequency	Percentage
1. Age	20-29 Years Old	41	40.6
	30-39 Years Old	39	38.6
	40-49 Years Old	15	14.9
	50-59 Years Old	6	5.9
	Total	101	100.0
2. Sex	Male	33	32.7
	Female	68	67.3
	Total	**101**	**100.0**
3. Program Course	Master of Arts in Education	85	84.2
	Master in Development Management	7	6.9
	Doctor of Education	3	3.0
	Specialization Courses	6	5.9
	Total	**101**	**100.0**
4. Level of Education	Bachelor's Degree	40	39.6
	Master Level (with Units)	49	48.5
	Master's Degree	10	9.9
	Doctorate Level (with Units)	2	2.0
	Total	**101**	**100.0**
5. Licensure Examination Passed	Licensure Examination for Teachers	67	66.3
	National Certificates	3	3.0
	Professional Civil Service	5	5.0
	Others	5	5.0
	None	21	20.8
	Total	**101**	**100.0**

As shown in the table, the profile of the respondents revealed that majority were 20 years of age at 41% followed by 30 years of age at 38.6%, this showed that majority of the respondents belonged to the millennial group. Majority of the respondents were female which showed that most of the students in OUS are female. Masters of Arts in Education (MAEd) consisted the most numbers of respondents at 84.2%; this also validated that MAEd had the most number in the population of students and most of them had Bachelor's Degrees and were currently at Master Level. Lastly, the majority of the respondents passed the licensure examination for teachers.

Table 2: Profile of the Respondents

Variables	Categories	Frequency	Percentage
6. Field of Specialization	Computer Science	4	4.0
	English and Filipino	19	18.8
	General Education	31	30.7
	Mathematics	8	7.9
	SCIENCE	5	5.0
	Social Studies	6	5.9
	TLE	7	6.9
	Others	16	15.8
	None	5	5.0
	Total	101	100.0
7. Rank	Teacher 1-3	63	62.4
	Head Teacher 5	1	1.0
	Master Teacher 2	2	2.0
	School Administrator	6	5.9
	Private Teacher	7	6.9
	Administrative Aide III	4	4.0
	Others	9	8.9
	None	9	8.9
	Total	101	100.0
8. Years of Teaching	No Teaching Experience	19	18.8
	1-10 Years	67	66.3
	11-20 Years	11	10.9
	21-30 Years	4	4.0
	Total	101	100.0

9. Grade Level of Teaching	Kindergarten	7	6.9
	Grade 1-3	27	26.7
	Grade 4-6	17	16.8
	Grade 7-9	17	16.8
	Grade 10-12	13	12.9
	Others	7	6.9
	None	13	12.9
	Total	101	100.0

As shown in the table, the majority of the graduate students specialized in General Education. This showed that most of the respondents were teaching in primary schools. Also, the majority of the respondents were holding the position of Teacher 1 to 3 and had been teaching around 1 to 10 years. Lastly, most of the respondents taught in elementary level such as Grade 1 to 3.

Table 3: Readiness of the Graduate Students

A. Self Direction	1	2	3	4	5
1. I am good at setting goals and deadlines for myself.	0	0	17	51	33
	0.0%	0.0%	16.8%	50.5%	32.7%
2. I have a really good reason for taking an online course.	0	1	14	44	42
	0.0%	1.0%	13.9%	43.6%	41.6%
3. I finish the projects I start.	0	1	11	53	36
	0.0%	1.0%	10.9%	52.5%	35.6%
4. I do not quit just because things get difficult.	0	3	7	35	55
	0.0%	3.0%	6.9%	34.7%	54.5%
5. I can keep myself on track and on time.	0	3	15	56	27
	0.0%	3.0%	14.9%	55.4%	26.7%
Weighted Mean: 4.21 (Agree)					
B. Learning Preferences					
6. I learn fairly easily.	0	2	18	64	17
	0.0%	2.0%	17.8%	63.4%	16.8%
7. I can learn from things I hear, like lectures, audio recordings, or podcasts.	0	1	14	54	32
	0.0%	1.0%	13.9%	53.5%	31.7%

8. I have to read something to learn it best.	0	3	7	48	43
	0.0%	3.0%	6.9%	47.5%	42.6%
9. I have developed good ways to solve problems I run into.	1	2	12	51	35
	1.0%	2.0%	11.9%	50.5%	34.7%
10. I learn best when I figure things out for myself.	0	4	12	47	38
	0.0%	4.0%	11.9%	46.5%	37.6%
11. I like to learn in a group, but I can learn on my own as well.	0	2	12	51	36
	0.0%	2.0%	11.9%	50.5%	35.6%
12. I am willing to send e-mail to or have discussions with people I might never see.	1	2	28	39	31
	1.0%	2.0%	27.7%	38.6%	30.7%
Weighted Mean: 4.13 (Agree)					
C. Study Habits					
13. I usually study in a place where I can read and work on assignments without distractions.	0	1	20	31	49
	0.0%	1.0%	19.8%	30.7%	48.5%
14. I can ignore distractions around me when I study.	4	13	30	41	13
	4.0%	12.9%	29.7%	40.6%	12.9%
15. I am willing to spend 10-20 hours each week on an online course.	1	7	42	29	22
	1.0%	6.9%	41.6%	28.7%	21.8%
16. I keep a record of what my assignments are and when they are due.	0	2	19	44	36
	0.0%	2.0%	18.8%	43.6%	35.6%
17. I plan my work in advance so that I can turn in my assignments on time.	0	4	19	54	24
	0.0%	4.0%	18.8%	53.5%	23.8%
18. When I study, people around me will help me work and not try to distract me.	2	6	24	51	18
	2.0%	5.9%	23.8%	50.5%	17.8%
19. I am willing to use e-mail and other online tools to ask my classmates and instructors questions.	0	1	9	52	39
	0.0%	1.0%	8.9%	51.5%	38.6%
Weighted Mean: 3.93 (Agree)					
D. Technology Skills					
20. I am fairly good at using the computer.		1	12	53	35
	0.0%	1.0%	11.9%	52.5%	34.7%
21. I am comfortable surfing the Internet.	0	1	14	31	55
	0.0%	1.0%	13.9%	30.7%	54.5%

22. I am comfortable conducting searches, setting bookmarks, and downloading files.		1	15	46	39
	0.0%	1.0%	14.9%	45.5%	38.6%
23. I am comfortable installing software and changing configuration settings on my computer.		1	4	33	40	23
	1.0%	4.0%	32.7%	39.6%	22.8%
24. I know someone who can help me if I have computer problems.		1	4	13	38	45
	1.0%	4.0%	12.9%	37.6%	44.6%
Weighted Mean: 4.16 (Agree)					
E. Computer Equipment Capabilities					
25. My computer and Mobile devices runs reliably on Updated Operating Systems.		1	4	17	47	32
	1.0%	4.0%	16.8%	46.5%	31.7%
26. I have a printer.		5	14	12	24	46
	5.0%	13.9%	11.9%	23.8%	45.5%
27. I am connected to the Internet with a fairly fast, reliable connection.		1	8	21	39	32
	1.0%	7.9%	20.8%	38.6%	31.7%
28. I have virus protection software running on my computer.		2	5	19	38	37
	2.0%	5.0%	18.8%	37.6%	36.6%
29. I have headphones or speakers and a microphone to use if a class has a videoconference.		2	4	22	36	37
	2.0%	4.0%	21.8%	35.6%	36.6%
30. My browser will play several common multimedia (video and audio) formats.		1	2	20	45	33
	1.0%	2.0%	19.8%	44.6%	32.7%
Weighted Mean: 3.99 (Agree)					
Overall Weighted Mean: 4.07 (Agree)					
Legend: 1- Strongly Disagree; 2-Disagree; 3-Neutral; 4-Agree; 5-Strongly Agree					

The respondents which were graduate students had a positive response in the readiness for online distance education. Under Self Direction, the respondents Agreed with a weighted mean of 4.21 which meant that they were ready for ODeL. It showed that the respondents were self-directed, such that they were setting a deadline for themselves and finishing projects that they started. Under Learning preferences, graduate students Agreed that they were ready in this aspect with a weighted mean of 4.13. While Study Habits showed the lowest weighted mean with 3.93 which still denoted that they Agreed. Under the Technological Skills, the graduate students Agreed that they were ready in terms of having skills in utilizing technology. Lastly, under Computer Equipment Capabilities, respondents showed that they had equipment for learning.

Table 5: Relationship between the Readiness of the Graduate Students and their Profile

Variables	Correlation	Readiness of the Graduate Students				
		Self-Direction	Learning Preferences	Study Habits	Technology Skills	Computer Equipment Capabilities
Age	r-value	.172	.114	.139	-.169	.172
	p-value	.085	.257	.165	.092	.086
Sex	r-value	.020	.014	.094	-.015	-.142
	p-value	.842	.889	.350	.884	.157
Program Course	r-value	.118	.128	.144	.160	.069
	p-value	.239	.203	.150	.110	.491
Level of Education	r-value	.244*	.157	.215*	.149	.166
	p-value	.014	.117	.031	.137	.098
Licensure Examination Passed	r-value	.166	.129	.248*	.059	.075
	p-value	.097	.199	.012	.557	.455
Field of Specialization	r-value	.095	.061	.053	.098	.009
	p-value	.345	.544	.601	.328	.927
Rank	r-value	.008	.015	.031	.067	-.070
	p-value	.939	.879	.757	.505	.487
Years of Teaching	r-value	.100	.011	.014	.041	.229*
	p-value	.321	.915	.888	.680	.021
Grade Level of Teaching	r-value	.055	.049	.012	.065	-.020
	p-value	.586	.625	.908	.521	.844
*. Correlation is significant at the 0.05 level (2-tailed).						

Based on the result, Study Habits showed that study habits are the lowest among them all. This contradicted the study of Coopasami, Knight, and Pete (2017) where it was found that students' psychological readiness for e-Learning was high, but they lacked technological readiness. The study was conducted on nursing undergraduate students and these technical aspects were more comfortable to resolve than improving psychological readiness. It was suggested to compare undergraduate and graduate students readiness in eLearning.

The Philippines had just started to embrace technology in the implementation of online education. Even prominent universities proposed researches in order to help public schools embrace online education (Nuncio, et. al., 2015) for policy formulations toward inclusive education. In addition, top universities discussed issues in the implementation of online education (Arinto, 2016). Some state universities in the Philippines had been adopting free platform as a start in distance learning,

but contained limitations, unlike Moodle. It was advised that teachers should enroll in online learning courses such as MOOCs in order to be familiarized with online learning, as discussed in the study of White, Leon, Borthwick & White (2015). Also, the platform and course were designed to promote social learning at scale. It was found that teachers needed to have apt experience in online learning since they are a contributing factor for the future of learning in the Philippines.

The data in Table 5 reveal that there was a slight relationship (r= 0.244, p = 0.014 < 0.05) between the profile of the respondents in terms of level of education and their readiness in open and distance education in terms of self-direction. This implied that the level of education of the respondents affected their readiness for open and distance education in terms of self-direction.

The data also revealed that there was a slight relationship (r = 0.215, p = 0.031 < 0.05) between the profile of the respondents in terms of level of education and their readiness in terms of study habits. This meant that the readiness of the respondents in open and distance education in terms of study habits was affected by their level of education.

Likewise, the data also revealed that there was a slight relationship (r = 0.248, p = 0.012 < 0.05) between the profile of the respondents in terms of licensure examination passed and their readiness in terms of study habits. This meant that the readiness of the respondents in open and distance education in terms of study habits was affected by the licensure examination they passed.

It was also revealed that there was a slight relationship (r = 0.229, p = 0.021 < 0.05) between the profile of the respondents in terms of their years of teaching and their readiness in terms of computer equipment capabilities. This meant that the years of teaching experience of the respondents was a determinant of their readiness in open and distance education in terms of computer equipment capabilities.

Hence, after testing the null hypothesis at 0.05 level, there was enough evidence to reject it. There was a significant relationship between the readiness of the respondents in open and distance education and their profile.

Conclusions and Recommendations

This study concluded that the majority of the respondents were ready for ODeL. The attitude of the graduate students in ODeL was positive. Regarding the correlation of profile and readiness of student, there was a significant relationship between the level of education of the respondents with their self-direction and study habits, between the licensure examination passed and their study habits, and between years of teaching and their computer equipment capabilities. While teachers as students especially millennials had a more positive outlook on online education, experienced teachers were also willing to adapt to the changing environment in education. Thus, graduate students or grade school teachers were found to be ready for online learning. It was recommended that the Department of Education focus on long-term implementation to support the growing need for distance learning and technological adaptation. Also, state universities and colleges in the Philippines should help DepEd schools through extension project to help the schools promote online learning, specifically the use of technology in online learning. The results

of the study indicated that graduate students had a positive attitude in ODeL. It was recommended that a virtual learning environment should be proposed for the benefit of the teachers, graduate students, the institution, and for contribution to the development of ODeL in the Philippines. Thus, future studies with broader scope such as gamification in education and other related studies on readiness was recommended to be conducted to validate future results.

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