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A comparative study on the perspectives of CEU-manila SOP community on flexible and face-to-face learning modalities: Pharmacy education in the new normal

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Abstract

Pharmacy Education has the goal of educating and training individuals around the world. Face-to-face learning is essential in pharmacy education since there are skills that must be developed and monitored by instructors. However, due to the COVID-19 pandemic, pharmacy education has shifted to distance learning and learning strategies such as flexible learning modality. This study aims to differentiate the viewpoints of the CEU-Manila SOP Community towards their preparedness, attitudes, and challenges in flexible and face-to-face learning modalities. A descriptive-quantitative cross-sectional study was employed using a convenience sampling technique. 166 junior pharmacy students, 126 senior pharmacy students and 13 faculty members of SOP were the participants of this study. The survey instrument was based on a research study conducted by Mohammad S. Shawaqfeh and colleagues, year 2020. The data was then interpreted and analyzed using the Paired T-test, frequency distribution, weighted mean, standard deviation, Pearson's correlation coefficient, and ANOVA test. The study showed that there is a significant difference between the preparedness, attitude, and challenges of students and faculty in flexible and face-to-face learning modalities. According to the findings, respondents are more prepared and have a positive attitude toward face-to-face learning than flexible learning, while students are more challenged by flexible learning than face-to-face learning. This would help address and develop learning and teaching strategies that are beneficial to students and faculty. Nonetheless, the sudden shift in the learning modalities would not hinder the SOP community from achieving and providing a quality pharmacy education.

Keywords: Face-To-Face Learning; Flexible Learning; New Normal; Perspectives; Pharmacy Education

1. Introduction

In the Philippines; pharmacy education is a four-year bachelor's degree program that provides a comprehensive range of scientific training and can lead to careers in a wide range of fields [1]. Since there are soft and hard skills that need to be acquired and supervised by instructors; face-to-face learning is crucial in pharmacy education. However; due to pandemic; flexible learning has become the preferred alternative method to consistently meet students' academic needs [2] <https://www.sciencedirect.com/science/article/abs/pii/S1096751617301355>. Institutions all over the world have switched their standard mode of education from a face-to-face learning modality to a flexible learning mode. Distance education has turned into a significant strategy for increasing access to higher education for more people, regardless of their economic or social circumstances. Nonetheless, this is a developing area that requires further development [3]. The online learning experience found this system a useful learning tool. However, the students still value the interaction that face-to-face learning brings as this mode is essential and ideal for the maximization of the student's learning outcomes [4, 5]. The goal of this study is to determine the perspectives of the CEU-Manila SOP Community towards face-

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to-face and flexible learning modalities. Also determine the socio-demographic profile of the respondents and their perceived level of preparedness; attitude; and challenges towards the learning modalities. Nonetheless; faculty and students have different stands about the sudden transition during the new normal that may affect their perceptions of learning modalities.

2. Material and methods

A descriptive-quantitative research technique was conducted in this study to compare the perspective of the CEU Manila SOP Community on the learning modalities. The researchers used a convenience sampling technique. A total of 305 respondents were selected based on the researcher's inclusion criteria. Selected junior and senior pharmacy students; as well as SOP faculty; were the respondents. The principal instrument used in this study was a Four-point Likert-scale questionnaire. The researchers were inspired to reconstruct a questionnaire utilizing the survey questions in the research study conducted by Shawaqfeh et al.; 2020 [5]. The data was collected using the survey questionnaire's final output; which was given through a Google form. The questionnaire is divided into three parts; each with its own set of questions for students and faculty. The respondents are asked to answer the socio-demographic questions in the first part of the survey. In addition; for the second and third parts; the survey questionnaire includes questions aimed to determine and assess their preparedness; attitude; and challenges with regard to flexible and face-to-face learning. The research protocol and informed consent was submitted to Centro Escolar University-Institutional Ethics and Review Board and has been approved prior to the dissemination of survey questionnaires. The data obtained were subjected to descriptive-quantitative analysis using different statistical treatments depending on the nature of the study objectives. T-test and ANOVA were employed for groups being compared and Pearson's correlation treatment to correlate the respondents' preparedness; attitude; and challenges in flexible and face-to-face learning.

3. Results and discussion

3.1. Socio-demographic Profile of Students

Socio-demographic profiles are the characteristics of a population. As per students; it contains the age; gender; year level; area of residence; most commonly used devices; and internet connectivity. For faculty; it comprises age; number of years teaching; most commonly used devices; and internet connectivity.

Table 1 Summary Statistics of the Student's and Faculties' Socio-Demographic Profile

Socio-demographic Profile	Frequency (f)	Percentage (%)	Socio-demographic Profile	Frequency (f)	Percentage (%)
Students			Faculty		
Age			Age		
21 and below	145	50	25 to 49 years old	9	69
22 and above	147	50	41 to 56 years old	3	23
Gender			56 to 66 years old	1	8
Male	49	17	Number of Years Teaching		
Female	243	83	1 to 10 years	9	69
Year Level			11 to 20 years	1	8
3 rd Year	166	57	21 to 30 years	2	15
4 th Year	126	43	31 years above	2	8
Area of Residence			Most Commonly Used Device		
Rural	119	41	Smartphone	11	85
Urban	173	59	Laptop	10	77
Most Commonly Used Device			Tablet/Ipad	3	23

Smartphone	254	87	Desktop	2	15
Laptop	247	85	Internet Connectivity		
Tablet/Ipad	65	22	Stable	8	62
Desktop	26	9			
Internet Connectivity			Intermittent	5	38
Poor	14	5			
Intermittent	211	72			
Stable	67	23			

Table 1 shows the socio-demographic profile of the students and faculty. As presented in the table; there was an equal percentage (50%) of the student's age. Majority of the students were female (83%) rather than male (17%). Based on the total number of respondents; 3rd year students (57%) had a higher percentage than 4th year students (43%). It showed that most of the respondents were residing in urban areas (59%); using smartphones (87%); have intermittent connectivity (72%). Furthermore; the majority of students have indicated that not all students have the same capacity to have the appropriate learning tools or devices that meet the requirements for online classes. On the other hand; the majority of the faculty were Millennial (69%). Faculty with 1 to 10 years of teaching experience (69%) had a higher percentage among the others. Majority of faculty used smartphones (85%). Only few were experiencing intermittent connectivity since a high percentage had a stable connectivity.

3.2. Respondents' Perceived Level of Preparedness towards

3.2.1. Flexible Learning

This section presents the summary of the data on the perceived level of preparedness of the students and faculties towards flexible learning modality. The summative data are tabulated below.

Table 2 Summary of the Data on Students' Perceived Level of Preparedness toward Flexible Learning

Preparedness	Mean	Standard Deviation	Interpretation
I was well prepared to join online learning.	2.65	0.68	Agree
The university has been helpful in offering me resources to learn from home.	2.92	0.58	Agree
The university delivers a high-quality online learning experience.	2.97	0.56	Agree
Online classes enables students to continue their education than the traditional approach.	2.76	0.77	Agree
Online classes were very well organized.	2.72	0.62	Agree
Overall Mean Total	2.80	0.64	Agree

Table 2 shows that throughout the pandemic; the university has provided high-quality learning experiences for all students; based on the core values of delivering fair; inclusive; and accessible learning environments. The university has adopted a flexible learning approach by developing CEU LEAPS (Learning Engagement and Proficiency System) which not only allows students to study at their own convenience; time; and pace but also addresses students' and instructors' concerns about their restricted internet connectivity. As presented in the table above; the statement "Preparedness (The university delivers a high-quality online learning experience)" had the highest mean score of 2.97 with standard deviation of 0.56 or interpreted as agree while "Preparedness (I was well prepared to join online learning)" had the lowest mean score of 2.65 with standard deviation of 0.68 or interpreted as agree.

Table 3 shows that the faculty and institutions that supported students were able to improve class quality despite time limitations. The institution provided instructors training sessions on creating comprehensive and successful online learning modules. The training improved the instructors' knowledge and abilities about online class management; engaging students in learning through positive reinforcement; and online performance evaluation. Furthermore; instructors were able to deliver high-quality interactive teaching. As presented in the table above; the statements

“Preparedness (The university has been helpful in offering resources to teach from home) and “Preparedness (Online teaching enables professors to help their students continue their education better than the traditional approach)” had the highest mean score of 3.46 with standard deviation of 0.52 and 66 or interpreted as agree while “Preparedness (I was well prepared to teach in online learning)” had the lowest mean score of 3.23 with standard deviation of 0.60 or interpreted as agree.

Table 3 Summary of the Data on Faculties’ Perceived Level of Preparedness toward Flexible Learning

Preparedness	Mean	Standard Deviation	Interpretation
I was well prepared to teach in online learning.	3.23	0.60	Agree
The university has been helpful in offering me resources to teach from home.	3.46	0.52	Agree
The university delivers a high-quality online teaching experience.	3.31	0.48	Agree
Online teaching enables professors to help their students continue their education better than the traditional approach.	3.46	0.66	Agree
Online teaching was very well organized.	3.38	0.65	Agree
Overall Mean Total	3.37	0.64	Agree

3.2.2. Face-to-face Learning

This section presents the summary of the data on the perceived level of preparedness of the students and faculties towards face-to-face learning modality. The summative data are tabulated below.

Table 4 Summary of the Data on Students’ Perceived Level of Preparedness toward Face-to-face

Preparedness	Mean	Standard Deviation	Interpretation
I was well prepared to join face-to-face classes.	2.96	0.79	Agree
The university has been helpful in offering me resources to learn on-campus.	3.12	0.63	Agree
The university delivers a high-quality face-to-face learning experience.	3.35	0.59	Agree
Face-to-face education enables students to continue their education than the online approach.	3.41	0.71	Agree
Face-to-face classes were very well organized.	3.33	0.66	Agree
Overall Mean Total	3.23	0.67	Agree

Table 4 shows that students believed that lack of face- to-face interaction in e-learning was disadvantageous due to differences in teaching approaches between the two learning modalities. Many students felt that traditional mode was preferable in terms of engagement; focus; and participation in courses. Despite the fact that e-learning preparedness significantly improved student performance; there were still certain barriers that prevent individuals from making educational progress; such as mental health and cultural readiness. As presented in the table above; the statement “Preparedness (Face-to-face classes enable students to continue their education better than the online approach)” had the highest mean score of 3.41 with standard deviation of 0.71 or interpreted as agree while “Preparedness (I was well prepared to join face-to-face classes)” had the lowest mean score of 2.96 with standard deviation of 0.79 or interpreted as agree.

Table 5 shows that the faculty agreed that face-to-face learning was primarily a teacher-centered learning modality. They can educate and train students more effectively since they concentrate on strategies that will aid the students to be more innovative and interactive. The university provided them with different resources for the students to learn. That paved a way for faculty members to provide their students with methods and approaches they can practice for a skill-based course. As presented in the table above; the statement “Preparedness (The university has been helpful in

offering resources to teach on-campus)” had the highest mean score of 3.46 with standard deviation of 0.52 or interpreted as agree while “Preparedness (I was well prepared to teach in face-to-face classes)” had the lowest mean score of 3.08 with standard deviation of 0.76 or interpreted as agree.

Table 5 Summary of the Data on Faculties’ Perceived Level of Preparedness toward Face-to-face

Preparedness	Mean	Standard Deviation	Interpretation
I was well prepared to teach in face-to-face classes.	3.08	0.76	Agree
The university has been helpful in offering me resources to teach on-campus.	3.46	0.52	Agree
The university delivers a high-quality face-to-face teaching experience.	3.31	0.63	Agree
Face-to-face education enables professors to help their students continue their education better than the traditional approach.	3.38	0.51	Agree
Face-to-face classes was very well organized.	3.23	0.60	Agree
Overall Mean Total	3.29	0.60	Agree

3.3. Respondents’ Perceived Attitude towards

3.3.1. Flexible Learning

This section presents the summary of the data on the perceived attitude of the students and faculties towards flexible learning modality. The summative data are tabulated below.

Table 6 Summary of the Data on Students’ Perceived Attitude toward Flexible Learning

Attitude	Mean	Standard Deviation	Interpretation
I would prefer to have online learning to become the new normal.	1.90	0.79	Disagree
I learn better in this setting.	1.83	0.77	Disagree
I remember more details in the ideas in our discussion in this learning mode more than the face-to-face setting.	1.84	0.80	Disagree
Online courses help me assign reading and homework time better than on-campus approaches.	2.21	0.84	Disagree
Learning through online classes is helpful for the growth of my career.	2.09	0.80	Disagree
Overall Mean Total	1.97	0.80	Disagree

Table 6 shows that the transition to online education posed a challenge to some students due to several factors such as information quality and self-efficacy; satisfaction; effort expectation; performance expectation; social influence; etc. while utilizing online education influencing their attitudes and behaviors toward the learning modality. Moreover; the new impact of online education among students has exacerbated depression and anxiety during the pandemic period. Because of the pressure; stress and workload; they proposed that the mental health of college students be monitored. As presented in the table above; the statement “Attitude (Online courses help me assign reading and homework time better than on-campus approaches)” had the highest mean score of 2.21 with standard deviation of 0.84 or interpreted as disagree while “Attitude (I learn better in this setting)” had the lowest mean score of 1.83 with standard deviation of 0.77 or interpreted as disagree.

Table 7 shows that despite various limitations; it appears that e-Teaching was a viable way of delivery and an effective factor in e-Learning adoption. The educational system should be altered to match the new situation in order to build instructors’ attitudes and self-efficacy beliefs during distance learning; and teachers need training to increase their confidence in dealing with the new conditions imposed by the pandemic. As presented in the table above; the statement

“Attitude (Online teaching helps me assign reading and homework better than the on-campus approach)” had the highest mean score of 3.46 with standard deviation of 0.52 or interpreted as agree while “Attitude (I teach better in online setting)” had the lowest mean score of 2.46 with standard deviation of 0.52 or interpreted as disagree.

Table 7 Summary of the Data on Faculties’ Perceived Attitude toward Flexible Learning

Attitude	Mean	Standard Deviation	Interpretation
I would prefer to have online teaching to become the new normal.	3.00	0.71	Agree
I teach better in online setting.	2.46	0.52	Disagree
I can incorporate more details in the ideas in our discussion in this learning mode more than the face-to-face setting.	2.63	0.77	Agree
Online teaching help me assign reading and homework time better than on- campus approaches.	3.46	0.52	Agree
Teaching through online classes is helpful for the growth of my career.	3.00	0.82	Agree
Overall Mean Total	2.91	0.67	Agree

3.4. Face-to-face Learning

This section presents the summary of the data on the perceived attitude of the students and faculties towards face-to-face learning modality. The summative data are tabulated below.

Table 8 Summary of the Data on Students’ Perceived Attitude toward Face-to-face Learning

Attitude	Mean	Standard Deviation	Interpretation
I would prefer to have face-to-face learning.	3.51	0.72	Strongly Agree
I learn better in face-to-face setting.	3.53	0.70	Strongly Agree
I remember more details in the ideas in our discussion in this learning mode more than the online setting.	3.55	0.68	Strongly Agree
Face-to-face education help me assign reading and homework time better than online approaches.	3.38	0.76	Agree
Learning through face-to-face classes is helpful for the growth of my career.	3.59	0.67	Strongly Agree
Overall Mean Total	3.51	0.70	Strongly Agree

Table 8 shows that students agreed that online instruction may not provide sufficient student support. In face-to-face set-up; they had the support and help with their various learning needs. These resources clarified and reinforced the material; guided and allowed them to succeed in their education. In essence; students who took online courses missed out on the on-campus experiences that connected them with faculty and students and that helped them through their college career. As presented in the table above; the statement “Attitude (Learning through face-to-face classes is helpful for the growth of my career)” had the highest mean score of 3.59 with standard deviation of 0.67 or interpreted as strongly agree while “Attitude (Face-to-face learning helps me assign reading and homework time better than the online approach)” had the lowest mean score of 3.38 with standard deviation of 0.76 or interpreted as agree.

Table 9 shows that the faculty preferred traditional face-to-face learning over online learning. It allowed faculty members to interact with their students and had dynamic discussions. It promoted student engagement and also had a good impact on their academic performance. As presented in the table above; the statement “Attitude (I teach better in face-to-face setting)” had the highest mean score of 3.54 with standard deviation of 0.52 or interpreted as strongly agree while “Attitude (Face-to-face classes help me assign reading and homework better than the on-campus approach)” had the lowest mean score of 3.15 with standard deviation of 0.80 or interpreted as agree.

Table 9 Summary of the Data on Faculties' Perceived Attitude toward Face-to-face learning

Attitude	Mean	Standard Deviation	Interpretation
I would prefer to have face-to-face learning.	3.46	0.66	Agree
I teach better in face-to-face online setting.	3.54	0.52	Strongly Agree
I can incorporate more details in the ideas in our discussion in this learning mode more than online setting.	3.46	0.66	Agree
Face-to-face education help me assign reading and homework time better than on- campus approaches.	3.15	0.80	Agree
Teaching through face-to-face classes is helpful for the growth of my career.	3.46	0.52	Agree
Overall Mean Total	3.42	0.63	Agree

3.5. Respondents' Perceived Challenges towards

3.6. Flexible Learning

This section presents the summary of the data on the perceived challenges of the students and faculties towards flexible learning modality. The summative data are tabulated below.

Table 10 Summary of the Data on Students' Perceived Challenges toward Flexible Learning

Challenges	Mean	Standard Deviation	Interpretation
Heavy workload of the online courses	3.50	0.57	Agree
Difficulty in applying learning for practical sessions and courses	3.48	0.60	Agree
Difficulty in understanding instructions and queries	3.00	0.72	Agree
Poor internet connectivity	3.23	0.73	Agree
Limited access to gadgets	2.85	0.80	Agree
Power interruption	3.26	0.78	Agree
Immense pressure	3.43	0.66	Agree
Household chores	3.40	0.68	Agree
Anxiety and/or depression	3.48	0.70	Agree
Managing time	3.44	0.67	Agree
Overall Mean Total	3.31	0.69	Agree

Table 10 shows that the students agreed that stress was caused by excessive mental workload. Physical demand was as excessive as most students' developed physical discomfort. This online learning created a time-oriented or temporal demand on the students. The effort required to achieve the level of performance would vary from student to student because students from affluent families have access to digital resources compared to poor families. As presented in the table above; the statement "Challenges (Heavy workload of the online courses)" had the highest mean score 3.50 with standard deviation of 0.57 or interpreted as agree while "Challenges (Limited access to gadgets)" had the lowest mean score of 2.85 with standard deviation of 0.80 or interpreted as agree.

Table 11 Summary of the data on Faculties' perceived challenges toward Flexible Learning

Challenges	Mean	Standard Deviation	Interpretation
Heavy workload of the online courses	3.69	0.63	Strongly Agree

Difficulty in conducting practical sessions and courses	3.31	1.11	Agree
Difficulty in giving instructions and queries through email and messages	2.85	1.21	Agree
Poor internet connectivity	3.00	1.08	Agree
Power interruption	2.69	1.11	Agree
Managing virtual classroom behaviour	3.54	0.66	Strongly Agree
Lack of technological literacy	2.38	1.04	Disagree
Immense pressure	2.92	0.95	Agree
Lack of students' interaction	3.62	0.51	Strongly Agree
Limited access to gadgets	2.54	1.13	Agree
Overall Mean Total	3.05	0.66	Agree

Table 11 shows that the faculty have concurred that online course instruction may be more time-consuming; impersonal; and relationally unrewarding. The material that they used in a traditional classroom setting must be converted and transformed to fit the online medium; which increases teacher preparation time. Teachers; on the other hand; utilize technology on a regular basis and are proficient in a wide range of programs and apps. School closures due to the pandemic have increased teachers' engagement with technology and for the most part; have increased their confidence in using it. As presented in the table above; the statement "Challenges (Heavy workload) had the highest mean score 3.69 with standard deviation of 0.63 or interpreted as strongly agree while "Challenges (Lack of technological literacy" had the lowest mean score of 2.38 with standard deviation of 1.04 or interpreted as disagree.

3.7. Face-to-face Learning

This section presents the summary of the data on the perceived challenges of the students and faculties towards face-to-face modality. The summative data are presented below.

Table 12 shows that one of the main issues among students was transportation and travel expenses. Many students lived far from school which resulted in inefficient public transportation; traffic; and hazards; especially for those who rely on public transportation. Expenses appeared unaffected by public transit at first; but when all transportation costs were added together; this appeared excessive. Transportation had an impact on their health and well-being. Safety and health concerns when traveling to school affected the overall academic performance of the students. Meanwhile; the majority of the students were more established in understanding instructions; raising concerns; and addressing queries face-to-face since there was a live interaction between concerned parties. As presented in the table above; the statement "Challenges (Monthly expenses which transportation expenses are included)" has the highest mean score of 3.20 with standard deviation of 0.69 or interpreted as agree while "Challenges (Difficulty in understanding instructions and queries)" has the lowest mean score of 2.31 with standard deviation of 0.79 or interpreted as disagree.

Table 13 shows that the faculty have faced increased workload. They had to use new practices and modes of management; both professionally and emotionally; and inadequate and long-term efforts also to meet work obligations; thus leading to burnout. Greater workload than the resources available to fulfill it; decreased the desire to continue practicing the profession. Furthermore; faculty members faced a challenge with public transportation. Subsequently; faculty members were efficient in giving instructions and answering queries and concerns face-to-face. As presented in the table above; the statements "Challenges (Heavy workload) and Challenges (Monthly expenses which transportation expenses are included)" have the highest mean score of 3.38 with a standard deviation of 0.87 or interpreted as agree while "Challenges (Difficulty in giving instructions and queries)" has the lowest mean score of 2.31 with standard deviation of 0.85 or interpreted as disagree.

Table 12 Summary of the Data on Students' Perceived Challenges toward Face-to-face Learning

Challenges	Mean	Standard Deviation	Interpretation
Heavy workload of the courses	3.08	0.70	Agree
Difficulty in applying learning for practical sessions and courses	2.50	0.85	Disagree

Difficulty in understanding instructions and queries	2.31	0.79	Disagree
Monthly expenses (transportation expenses included)	3.20	0.69	Agree
Extracurricular Activities	2.80	0.75	Agree
Immense pressure	3.16	0.67	Agree
Social Anxiety	2.96	0.81	Agree
Managing time	3.04	0.72	Agree
Outside-of-campus projects	2.84	0.77	Agree
Overall Mean Total	2.88	0.75	Agree

Table 13 Summary of the Data on Faculties' Perceived Challenges toward Face-to-face Learning

Challenges	Mean	Standard Deviation	Interpretation
Heavy workload	3.38	0.87	Agree
Difficulty in conducting practical sessions and courses	2.38	0.96	Disagree
Difficulty in giving instructions and queries	2.31	0.85	Disagree
Monthly expenses (transportation expenses are included)	3.38	0.87	Agree
Managing classroom behaviour	2.69	0.95	Agree
Immense pressure	2.77	0.73	Agree
Ensuring information retention of students	3.08	0.86	Agree
Overall Mean Total	2.86	0.87	Agree

3.8. Respondents' Preparedness; Attitude, and Challenges in Flexible and Face-to-face Learning

The dependent t-test compares the means of two related groups to see if the differences are statistically significant. This refers to the findings of the statistical treatment; dependent T-Test on students' and faculty's preparedness; attitude; and challenges in flexible and face-to-face learning.

Table 14 above indicates that there is a significant difference between flexible and face-to-face learning in terms of preparedness ($t = -9.167$; $p = 0.000$); attitude ($t = -18.177$; $p = 0.000$); and challenges ($t = 9.080$; $p = 0.000$); implying that the students are more prepared and have a better attitude towards face-to-face learning than flexible learning; while flexible learning challenges students more than face-to-face learning.

Table 14 Results of Dependent T-Test between Students' Preparedness; Attitude; and Challenges in Flexible and Face-to-face Learning

Student	t-value	p-value	Decision	Remarks
Preparedness	-9.167	0.000	Reject Ho	Significant
Attitude	-18.177	0.000	Reject Ho	Significant
Challenges	9.080	0.000	Reject Ho	Significant

Table 15 Results of Dependent T-Test between Faculties' Preparedness; Attitude; and Challenges in Flexible and Face-to-face Learning

Faculty	t-value	p-value	Decision	Remarks
Preparedness	0.488	0.635	Reject Ho	Significant
Attitude	-3.284	0.007	Reject Ho	Significant

Challenges	0.907	0.382	Reject H ₀	Significant
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Table 15 above indicates that there is a significant difference in attitude between flexible and face-to-face learning ($t = -3.284$; $p = 0.007$); implying that the faculty have a more positive attitude toward face-to-face learning than flexible learning. However; there is a marginal difference between flexible and face-to-face learning in terms of preparedness ($t = 0.488$; $p = 0.635$); attitude ($t = -3.284$; $p = 0.007$); and challenges ($t = 0.907$; $p = 0.382$).

4. Conclusion

In conclusion; the study showed that there was a significant difference between the perspectives of CEU Manila-SOP community based on domains: preparedness; attitude; and challenges of students and faculty in flexible and face-to-face learning modalities. Based on the results and findings; the majority were in favor of face-to-face learning being the most effective learning modality for the students and faculty. Students and faculty had a higher perceived level of preparation and attitude towards face-to-face learning than flexible learning. However; students were more challenged by flexible learning than face-to-face learning modalities due to heavy workloads of online courses; unstable internet connectivity; unexpected power interruptions; difficulty in applying learning for practical sessions and courses; having a hard time understanding instructions and queries; and limited access to gadgets. Nonetheless; the findings of the study would help address and develop learning and teaching strategies that were beneficial to students and faculty. Furthermore; the sudden shift in the learning modalities did not hinder the SOP community from achieving and providing a quality pharmacy education by providing a variety of resources available; such as the CEU LEAPS (Learning Engagement and Proficiency System) and downloadable learning materials; the university was able to provide both students and professors with an online education of the utmost quality.

Compliance with ethical standards

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Disclosure of conflict of interest

No conflict of interest.

Statement of ethical approval

The authors confirmed that the study protocol and informed consent underwent and approved by the Institutional Ethics Review Board.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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