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Perceptions of Community College Students to Flexible Learning Modality: Inputs for Pedagogical Interventions

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ABSTRACT

A flexible learning modality was implemented to provide relevant and quality education as educational institutions respond to the COVID-19 pandemic. Thus, the study examined community college students' perceptions of a flexible learning modality. The study utilized a non-experimental quantitative research design through a validated survey with 211 students from the selected three community colleges. The data were analyzed using frequency distribution, percentage, weighted mean, ANOVA, and multiple regression. Students' perceptions towards flexible learning modality with regard to their attitude revealed that students were fairly positive with the learning modality and moderately confident with the set-up of flexible learning. In addition, their level of engagement is noticeably high throughout their learning. Comparing the students' demographic profiles and perceptions implies no significant differences. The level of engagement and their perceptions of flexible learning concerning readiness showed a negative correlation. However, a positive correlation exists between students' level of engagement and their attitudes toward the said modality. This suggests that students should receive the appropriate instruction and orientation and be prompted to consider their qualities as flexible learners, as well as their abilities in time management, communication, and technical skills, as these abilities are essential for flexible learning modality.

INTRODUCTION

Flexible Learning is a learning modality that permits the flexibility of time, place, and the students. However, this is not solely focused on technology; it also provides the learner with choices about where, when, and how learning occurs. According to Pelayo and Pelayo (2020), flexible learning assists learners in planning their activities according to their needs, interests, and enthusiasm. It helps the learners' minds be pleasant and away from fear. COVID-19 has affected educational institutions all across the world, and finding efficient solutions to keep delivering instruction has become a top priority. The use of flexible learning as the delivery mode of the courses offered in Higher Education helps to enable students to select how, when, and where they learn in this time of health crisis. Students can complete learning tasks safely at their homes. In addition, teachers can customize the content and delivery according to the needs of the students. Moreover, Müller *et al.* (2018) pointed out that students have gained access and flexibility in at least one of the following areas: pace, learning style, material, assessment, and learning directions. According to Berg (2020), three types of interaction were initially identified in open-distance learning: engagement with the instructor, interaction with the subject, and interaction with other students. Interaction with technology was incorporated since it is crucial to online education.

To sustain the educational needs of the learners, teachers come up with strategies that require learners to undertake self-directed learning. With flexible learning, students may require accomplishing learning tasks with the adaption of self-directed learning. According to Caruso (2018), self-directed learning is a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.

Naidu and Roberts (2018) stressed that the delivery of courses and programs in flexible methods is orchestrated by the schools responsible for the help of the university infrastructure and its support services. Besides, Higher Education Institutions (HEIs) are working to increase flexibility and individualization, which is mostly achieved by utilizing new technology and implementing online or blended learning methods (Müller & Mildenberger, 2021). Flexible learning is not a silver bullet to solve issues in Higher Education, but it can offer some improvements and enhance students' experience (Gordon, 2016). Understanding what it means to learn, specifically in a flexible learning modality is a critical piece of the puzzle when trying to implement in times of pandemic. Teachers can create individualized learning experiences that are catered to the requirements and preferences of each student by assessing their flexible learning skills. Diverse learning styles, interests, and needs can be accommodated via flexible learning approaches. In order to ensure inclusivity and equitable opportunity for all students, educators can identify areas where students may need additional support or accommodations by evaluating flexible learning skills. Moreover, much of the research does not analyze the implementation of

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flexible learning in community college wherein students interested in pursuing flexible learning options should explore the offerings and resources available at their respective community colleges to determine the extent of flexibility provided. Hence, this study aimed to investigate community college students' perceptions in a flexible learning modality that focuses on attitudes, readiness, and level of engagement.

Statement of the Problem

1. What is the demographic profile of the students in terms of their:
   a. sex;
   b. senior high school strand; and
   c. socio-economic status?
2. What are the community college students' perceptions on the use of flexible learning modality in terms of their:
   a. attitude towards flexible learning;
   b. readiness to implement flexible learning; and
   c. level of engagement in their class?
3. Is there any significant difference between the community college students' demographic profiles and their perceptions on the use of flexible learning modality in terms of their:
   a. attitude towards flexible learning;
   b. readiness to implement flexible learning; and
   c. level of engagement in their class?
4. Which of the variables predicts the community college student's level of engagement towards the flexible learning modality?

LITERATURE REVIEW

Flexible Learning

Flexible learning has been discussed extensively in the literature for many years and is closely related to open and distance learning. The idea of flexibility has been looked at from a variety of aspects, including admission standards, student control over learning time, commitment, and tasks. Recently, there has been a trend toward using the term in a more precise or technical implication. Course design for successful learning with respect to the learner and aspects of flexibility has been a research area of interest (Li, 2014). In a study made by Broodyk (2015), it was stated that the primary responsibilities of the instructor are to coach, support, and design the learning process for the students. Student learning is evaluated through both formal and informal approaches, such as group projects, portfolios, and participation in class. Teaching and assessment are intertwined; formative and summative evaluations are used to continuously gauge student development. However, teachers acknowledge that the environment affects learning, it is clear that teachers who feel more at ease in their classroom do not use alternative learning environments. (Allison, Laney, & Member, 2018).

Hart (2000), stated that it is possible to deliver learning in fully improved environments both online and through a blended learning approach. Additionally, it encourages students to work independently and enroll in online programs while assisting them in choosing whether to enter or depart a course. Moreover, for people without access to the internet, there are modular or self-help resources (Barrera, Michael, & Norte, 2020). Furthermore, according to Hartfield (2013), independent learners believe that with supervision, they can teach themselves; experiential learners learn by doing; social learners take pleasure in participating in learning communities, sharing learning opportunities, and working in cooperative teams. The objectives of the course and the needs of the students seemed to be successfully met by the blended instructional design. It also gave students taking the lesson a number of advantages. The online components were useful and appropriate, giving students the freedom to interact with the material whenever they were able (Shand & Farelly, 2018).

Students' Perceptions and Level of Engagement Towards Flexible Learning

While challenges to learning for students were identified in a flexible delivery program, they commented positively on the advantages of staying in their hometowns for study (Milne *et al.*, 2014). Moreover, the preference of students for e-learning enables students to interact freely with their professors and fellow students as it engages them with their study materials at the convenience of their own time and space (Khan *et al.*, 2021).

Students thought that online learning was a practical substitute for traditional classroom instruction, but they acknowledged that practicality had a cost: by becoming independent and self-directed learners, they were losing guidance from and contact with professors. (Armstrong, 2011). However, students felt that the flipped classroom's adaptable settings gave them access to a variety of teaching methods and hands-on learning opportunities. (Shih & Tsai, 2017). Moreover, students favored well-organized content that was uploaded to university websites along with recorded videos. To enhance the learning process, they also mentioned the necessity of interactive sessions with tests and tasks at the end of each lesson. (Muthuprasad, 2021).

According to Nugroho *et al.* (2020), Students have a lot of negative opinions about online lectures. There is a favorable view of the efforts made by lecturers to employ asynchronous communication medium (recorded teaching), despite the fact that they appear unfamiliar to giving lectures that solely rely on network and internet resources. Nevertheless, students appreciated being able to complete their work on their own devices "from anywhere, at any time", while one student also mentioned "the flexibility of online learning" regarding Open Distance Education (Berg, 2020).

As part of learning is done by ICT, online or offline mode, students benefit from online learning and computer assisted instruction without sacrificing the social interaction element and personal touch of conventional teaching. As a result, there is more time for creative and

collaborative activities in the classroom for both teachers and students (Lalima & Lata, 2017). A study conducted by Prince (2020) stated the advantages of blended learning for students, greater student engagement, as technology is incorporated into classroom sessions, students are more likely to focus on, engage with, and be enthusiastic about the subjects they are studying. Even though a course is tedious for certain students, they might nevertheless learn more and retain it longer. Furthermore, it gives students freedom, using blended learning resources helps students learn to create realistic learning goals and take ownership of their education, which makes it easier for them to apply their learning to other topics.

The study conducted by Dantas and Kemm (2008) regarding the blended approach of active learning in a laboratory class, it was also noted that the process of writing and receiving comments for the scientific report received positive feedback. All of the students agreed that the procedure significantly improved their comprehension and appreciation of writing scientific reports. In the future, if research articles were written at their level of comprehension, they felt more confident that they would be able to independently create a scientific report and that they would be more critical while reading them.

A number of beneficial student outcomes, including higher-order thinking, better grades, and higher retention and graduation rates, have been associated to student involvement (Hamane, 2014). Moreover, to boost emotional engagement, an online atmosphere must be created where students feel comfortable sharing their opinions and ideas. Early on in the course, teachers need to create activities that promote social presence. By including activities that promote conversation among students, such as those that ask them to share personal experiences, social presence can be fostered. Giving peer evaluation can also enhance cognitive engagement because it demands students to read the material, think about it, and express what they understand about it. (Louwrens & Hartnett, 2015)

MATERIALS AND METHODS

Descriptive survey research was used to investigate the perceptions of community college students in the implementation of flexible learning modalities. More specifically, it looked into the demographic profile of the participants, students' perceptions on the use of flexible learning modality in terms of their attitudes and readiness to implement flexible learning; and students' level of engagement in their class. The inferential research method was used to explore the significant difference between students' perceptions to their demographic profile and level of engagement toward flexible learning modality.

The researchers purposively selected the students enrolled in an environmental science class offered at three chosen community college of Palawan State University-College of Community Resources and Development (CCRD) during the first semester of the school year 2021-2022. There are 1157 students enrolled on the aforementioned class of the three selected community college as shown in Table 1. However, when the researchers sent out online survey forms only 211 students responded due to pandemic restrictions and poor internet connectivity. Thus, the actual number of samples for each campus was drawn using stratified sampling based from the total number of students who responded on the online survey form.

Table 1: The Corresponding Number of Students on Each Community College

Campuses	Number of Students	Actual Number of Sample
PSU-CCRD Narra	392	72
PSU-CCRD Quezon	205	37
PSU-CCRD Brooke's Point	560	102
Total	**1157**	**211**

The researchers used a survey questionnaire to obtain the respondents' demographic profile and perceptions in terms of students' attitudes toward flexible learning (adapted from Wanner and Palmer, 2015); students' readiness towards flexible learning (adapted from Martin, Stamper, and Flowers, 2020); and students' level of engagement towards flexible learning (adapted from Dixson, 2015).

The adapted survey questionnaires from the previous research were modified according to their intended purpose. Survey questionnaires used in this study were subjected to validity and reliability tests before administration. To establish the questionnaire's content validity and reliability, a pilot testing was conducted. Participants in the pilot testing were the students from other community college of the same university with the same characteristics as those of the actual participants of the study.

The students' responses in the conducted pilot testing were computed using the Cronbach alpha test. The Cronbach's Alpha of the questionnaire in terms of student attitudes is .932, therefore, the items are highly reliable. In addition, .978 Cronbach alpha was obtained for the questionnaire in regards with readiness of the students towards flexible learning modality, therefore, the items are highly reliable too. Lastly, the Cronbach's Alpha of the questionnaire for the of level of engagement is .956, therefore, the items are highly reliable.

The data obtained using the descriptive survey method to gain information on students' perceptions were analyzed using frequency distribution, percentage, and weighted mean. T-test and Analysis of Variance (ANOVA) were used to determine whether significant differences exist between the demographic profile that includes sex, senior high school strand, and family's monthly income and their perceptions on the use of flexible learning modality as attitude toward flexible learning, readiness in implemented flexible learning and their level of engagement towards the said modality. Moreover, multivariate regression analysis was used to determine the predictor of the students' level of engagement.

RESULTS AND DISCUSSION

The investigation focused on the community college students' perceptions on the use of flexible learning modality in terms of their attitude, readiness, and level of engagement. Correlation between their demographic profile to their attitudes, readiness, and level of engagement was also tested for analysis.

Demographic Profile of the Students

The figures presented in Tables 2, 3, and 4 show the demographic profile of the respondents.

Table 2: Profile of the Students in terms of Sex

Sex	f	%	Rank
Male	89	42.2	2
Female	122	57.8	1

Table 2 shows the data on the demographic profiles of the students according to their sex. It can be seen from the data that the majority of the respondents are females (122) which is 57.8% of the total (211) population of the study students while a total of 89 (42.2%) students belong to the male group.

Table 3 presents the type of senior high school strand that the students have taken. It can be seen that 89 or 42.2% are TVL graduates. GAS and HUMMS graduates comprised 31 (14.7%) and 18 (8.5%) respectively. A total of 25 respondents took up ABM, STEM, and SPORTS. There were 48 (22.7%) who identified themselves as graduates of Alternative Learning System (ALS).

Table 3 revealed the students' family income. It shows that 177 (83.9%) belong to the monthly family income bracket of PHP 10,000 and below while 24 (11.4%) have the parents' earnings between PHP 10,001 to PHP 20,000. Only 10 (4.7%) have a family monthly earnings of PHP 20,001 and above.

Table 3: Profile of the Students in terms of their Senior High School Strand

Senior High School Strand	f	%	Rank
GAS	31	14.7	3
HUMMS	18	8.5	4
STEM	7	3.3	6
TVL	89	42.2	1
ABM	15	7.1	5
SPORTS	3	1.4	7
No Specific strand reflected (ALS)	48	22.7	2

Table 4: Profile of the Students in terms of their Family's Monthly Income

Monthly Family Income	f	%	Rank
Below PHP10,000	177	83.9	1
PHP 10,001- PHP 20,000	24	11.4	2
PHP 20,001- PHP 30,000	7	3.3	3
PHP 30,001- PHP 40,000	2	0.9	4
Above PHP 40,000	1	0.5	5

Students' Perceptions on the Use of Flexible Learning Modality

Table 5 provides data on students' perceived attitudes towards the flexible learning modality. Generally, the respondents of this study are fairly positive whether the flexible learning modality approach used in their classes suits their learning needs, provides a stimulating learning experience, involves less work and time commitment than a regular class (face-to-face lectures), allows them to enjoy for it is an effective way to learn the content material of the course.

A further finding of this study concerning to the attitudes of the students revealed on the table above that the

Table 5: Students' Perceived Attitude Towards Flexible Learning Modality

Statements	Perceptions					Mean	Rank	Adjectival Rating
	VN (1)	N (2)	FP (3)	P (4)	VP (5)			
1. The flexible learning approach in our course suited my learning needs.	23	17	47	124	0	3.29	2.5	FP
2. The flexible learning approach in our course provided a stimulating learning experience for me.	23	19	46	123	0	3.27	4	FP
3. The flexible learning approach in this course was an effective way to learn the content material.	16	20	52	123	0	3.34	1	FP
4. I enjoy flexible learning modality.	25	15	45	126	0	3.29	2.5	FP
5. Being in flexible learning involved less work and time commitment for me than in a regular class (face-to-face lectures).	25	28	51	107	0	3.14	5	FP
Weighted Mean						**3.27**		**FP**

Legend:

4.21-5.00	*Very Negative (VN)*
3.41-4.20	*Negative (N)*
2.61-3.40	*Fairly Positive (FP)*
1.81-2.60	*Positive (P)*
1.00-1.80	*Very Positive (VP)*

flexible learning modality was an effective way to learn the content material of the said course, this was followed by the modality meeting the needs and interests of the students, therefore, students find it enjoyable. On the other hand, the least thing about the flexible learning students was flexible learning involved less work and time commitment than on a regular class.

Adopting a new learning modality is often a discouraging task to the learners and the teachers, especially in an environment with a lack of resources. The majority of the students' attitudes towards the flexible learning modality of the course were neither positive nor negative. This agrees with the study conducted by Sanpanich (2021) that despite learning flexibility being the most important aspect of the students in an online course, some feel unfamiliar with the online platforms or new technologies that were introduced to them. Furthermore, the study suggested that students should be prepared or given training prior to attending hybrid courses regarding how the technology works or how each platform operates to understand the functions of the technology or platform. Besides, the study conducted by Ayasrah *et al.* (2022) also found that in light of the spread of the Coronavirus, the attitudes of students and teachers toward e-learning and blended learning were at an average level. Thus, it is believed that students' and teachers' attitudes toward e-learning and blended learning should be strengthened by providing rewards, incentives, and the necessary equipment and technologies needed for the said learning approach.

Students' Perceived Readiness Towards the Implementation of Flexible Learning Modality

Results show that the students are moderately ready about learning from a variety of formats (lectures, videos, online discussion/conferencing, modules) and have the same perception about following instructions in various teaching-learning formats (written, video, audio, etc.) and in using of additional resources to answer course-related questions (course content). This was based on the mean rating ranging from 3.30 to 3.35 of the statements under students' attributes.

Table 6: Perceptions of Students in terms of Student Attributes

Dimensions	Perceptions					Mean	Rank	Adjectival Rating
	NR (1)	SR (2)	MR (3)	R (4)	HR (5)			
Students Attributes								
1. Learn from a variety of formats (lectures, videos, online discussion/conferencing, modules)	17	17	62	115	0	3.30	2.5	MR
2. Follow instructions in various teaching-learning formats (written, video, audio, etc.)	18	20	54	124	0	3.30	2.5	MR
3. Use of additional resources to answer course-related questions (course content, assignments, etc.)	17	17	62	115	0	3.35	1	MR
Overall Mean Rating						**3.32**		**MR**

Legend:

4.21-5.00	*Highly Ready (HR)*
3.41-4.20	*Ready (R)*
2.61-3.40	*Moderately Ready (MR)*
1.81-2.60	*Slightly Ready (SR)*
1.00-1.80	*Not Ready at all*

A study conducted by Aşkin and Erzurumlu (2021) similarly revealed that the students had a moderate level of readiness toward online learning during the Covid-19 pandemic but was close to the high-level limit. Hence, increasing the technological facilities and computer use, the competence of learners will increase online learning readiness and academic success. However, in the same setting, Filipino higher education students scored a lower level of readiness toward e-learning because many of the students had no access to a computer with an internet connection and adequate software (Clemen, Abdulmadid, and Jabbar, 2021).

An overall mean rating of 3.22 with a quantitative description of "sometimes" also agrees with the said result. The same perceptions were obtained from the students' readiness in terms of time management as

Table 7: Perceptions of Students in terms of Time Management

Dimensions	Perceptions					Mean	Rank	Adjectival Rating
	N (1)	R (2)	S (3)	O (4)	A (5)			
Time Management								
1. Devote hours per week regularly for the online and offline class	8	41	67	95	0	3.18	3.5	S
2. Stay on task and avoid distractions while studying	19	23	57	112	0	3.24	2	S
3. Utilize course schedule to meet deadlines/due dates	17	25	49	120	0	3.29	1	S

4. Complete course activities/assignment on time	19	30	55	107	0	3.18	3.5	S
Overall Mean Rating						**3.22**		**S**

Legend:

4.21-5.00 *Always (A)*
3.41-4.20 *Often (O)*
2.61-3.40 *Sometimes (S)*
1.81-2.60 *Rarely (R)*
1.00-1.80 *Never (N)*

reflected in the obtained mean rating ranging from 3.18 to 3.29. It implies that students have a less intense degree in devoting their time per week regularly to online and offline classes, focusing on tasks and avoiding distractions while studying, utilizing the course schedule to meet deadlines/due dates, and completing course activities/assignments on time. Flexible learning modality requires skills in terms of the usage of technology as a form of communication during the learning and teaching processes.

Table 8 shows the communication readiness of the students in the flexible learning modality, the students are "ready" in terms of the use of both synchronous (Google Meet, Zoom, and Facebook messaging) to communicate with the instructor and other students and asynchronous technologies (Google classroom private message, email, etc.) based on the mean ratings of 3.45 and 3.46 respectively. However, they are moderately ready in the aspects of asking the instructor for help via email or chat, asking classmates for support (accessing the course, clarification on a topic), and discussing feed received (assignments, quizzes, discussion, etc.) with the

Table 8: Perceptions of Students in terms of Communication

Dimensions	**Perceptions**					**Mean**	**Rank**	**Adjectival Rating**
	NR (1)	**SR (2)**	**MR (3)**	**R (4)**	**HR (5)**			
Communication								
1. Use asynchronous technologies (Google classroom private message, email, etc.)	19	9	41	142	0	3.45	2	R
2. Use synchronous technologies (Google Meet, Zoom, Facebook messaging) to communicate with the instructor and other students	16	12	41	142	0	3.46	1	R
3. Ask the instructor for help via email or chat	17	11	59	124	0	3.37	4	MR
4. Ask classmates for support (accessing the course, clarification on a topic)	16	12	56	127	0	3.39	3	MR
5. Discuss feed received (assignment, quizzes, discussion, etc.) with the instructor	12	19	60	120	0	3.36	5	MR
Overall Mean Rating						**3.41**		**R**

Legend:

4.21-5.00 *Highly Ready (HR)*
3.41-4.20 *Ready (R)*
2.61-3.40 *Moderately Ready (MR)*
1.81-2.60 *Slightly Ready (SR)*
1.00-1.80 *Not Ready at all (NR)*

instructor. Generally, the overall mean rating of 3.41 has a description of "ready" which implies that students have a high degree of confidence in terms of communicating via synchronous and asynchronous learning modalities.

Table 9 reveals that students are "competent" in participating in course activities (discussions, quizzes, assignments, synchronous sessions) and "moderately competent" in performing basic computer operations (e.g., creating and editing documents, managing files, and folders and navigating through the courses in Learning Management System (e.g., Google Classroom).

From the result of the study conducted by Chung *et al.* (2020), it was found that students generally indicated that they were between slightly to moderately ready for online learning. Some of them were not ready for online learning. This is due to a lack of learners' control, self-directed learning, and online communication efficacy.

Table 9: Perceptions of Students in terms of Technical Competence

Dimensions	**Perceptions**					**Mean**	**Rank**	**Adjectival Rating**
	NC (1)	**SC (2)**	**MC (3)**	**C (4)**	**HC (5)**			
Technical Competence								
1. Perform basic computer operations (e.g., creating and editing documents, managing files, and folders	13	17	78	103	0	3.28	3	MC

2. Navigate through the courses in Learning Management System (e.g., Google Classroom	12	14	67	118	0	3.38	2	MC
3. Participate in course activities (discussions, quizzes, assignments, synchronous sessions)	17	12	51	131	0	3.41	1	C
Overall Mean Rating						**3.36**		**MC**

Legend:

4.21-5.00	Highly Competent (HC)
3.41-4.20	Competent (C)
2.61-3.40	Moderately Competent (MC)
1.81-2.60	Slightly Competent (SC)
1.00-1.80	Not Competent at all (NC)

Table 10 presents the students' perceived level of engagement in their classes with the use of a flexible learning modality. Results show that the students have a high level of engagement in their class with the use of a flexible learning modality as reflected in the mean rating ranging from 3.78 to 4.08. These mean ratings have an equivalent description of "true of me" which means that they have a high degree of engagement in the different activities in their classes under the flexible learning modality. These include making sure to study on a regular basis; putting forth effort; staying up on the readings; looking over class modules between getting online to make sure that they understand the materials; taking good notes over readings, PowerPoint presentations, or video lectures; finding ways to make the course interesting to them; having the desire to learn the material; actively participating in small-group discussions/forums; helping fellow students; getting a good grade; doing well on tests/quizzes; engaging in online conversations (Facebook Messenger, Chats, Emails); and getting to know other students in the course. It is often burdensome to keep up with the students' engagement when instructors and the students are not in the same place. However, this study positively revealed that students are highly engaged in their classes. It is like the research results conducted by Baloran *et al.* (2021) which revealed that students are highly engaged and satisfied with online learning delivery. More so, online course satisfaction is significantly related to students' skills engagement, emotion engagement, participation engagement, and performance engagement constructs of student engagement in online learning.

Table 10: Students' Perceived Level of Engagement in their class with the Use of Flexible Learning Modality

Statement	**Perceptions**					**Mean**	**Rank**	**Adjectival Rating**
	NT (1)	**ST (2)**	**MT (3)**	**TM (4)**	**VT (5)**			
1. Making sure to study on a regular basis	3	6	65	73	64	3.90	11	T
2. Putting forth effort	1	3	57	83	67	4.00	5.5	T
3. Staying up on the readings	2	9	77	69	54	3.78	13	T
4. Looking over class modules between getting online to make sure I understand the material	2	8	54	75	72	3.98	7.5	T
5. Taking good notes over readings, PowerPoints, or video lectures	1	9	55	80	66	3.95	10	T
6. Finding ways to make the course interesting to me	3	8	51	72	77	4.00	5.5	T
7. Desire to learn the material	1	5	50	86	69	4.03	4	T
8. Actively participating in small-group discussions forums	2	9	59	81	60	3.89	12	T
9. Helping fellow students	2	7	45	77	80	4.07	1	T
10. Getting a good grade	3	8	46	75	79	4.04	3	T
11. Doing well on tests/quizzes	3	7	49	70	82	4.05	2	T
12. Engaging in online conversations (Facebook Messenger, Chats, Emails)	2	7	53	82	67	3.97	9	
13. Getting to know other students in the course	0	12	52	76	71	3.98	7.5	T
Overall Mean Rating						**3.97**		**T**

Legend:

4.21-5.00	*Very true of me (VT)*
3.41-4.20	*True of me (T)*
2.61-3.40	*Moderately true of me (MT)*
1.81-2.60	*Slightly true of me (ST)*
1.00-1.80	*Not at all true of me (NT)*

Test of Difference between Community College Students' Demographic Profile and their Perceptions

T-test and Analysis of Variance (ANOVA) were used to

determine whether significant differences exist between the demographic profile that includes sex, senior high school strand, and family's monthly income and their perceptions on the use of flexible learning modality as attitude toward flexible learning, readiness in implemented flexible learning and their level of engagement in flexible learning modality.

Results show that no significant differences exist between sex, senior high school strand, and family's monthly income and their attitude, readiness, and level of engagement in their classes using flexible learning modality. This implies that their perceptions on the use of flexible learning are the same for male and female respondents whether they are graduates of GAS, HUMMS, STEM, TVL ABM, SPORTS, and non-graduates (ALS) and across different family's monthly income strata. This is based on the computed p-values which are greater than the alpha level (α) of 0.05.

The results imply that sex, senior high school strand, and family's monthly income have no bearing on the students' perception of readiness toward the implementation of flexible learning modality.

A similar research result made by Clemen, Abdulmadid, and Jabbar (2021), stated that the readiness towards online learning of students during the Covid-19 had no direct comparison among different age groups. On the other hand, a study by Van and Thi (2021) on the online readiness of students, revealed that gender had no influence on learning a course in an online learning environment. Moreover, Dembereldorj (2021) conducted a study that compared student engagement with gender, level of study, a field of study, tools to study, and internet access, and examined the relationships between variables. The items in the student online engagement were not found to have any differences or associations.

Table 11 : Significant Differences in the Students' Demographic Profiles and their Perceptions of the Use of Flexible Learning Modality

Dimensions	Variables	T/F-value	Sig.	Remarks
Attitude Toward Flexible Learning	Sex	-0.301	0.764	Not Significant
	Senior High School Strand	0.457	0.839	Not Significant
	Family Monthly Income	0.162	0.957	Not Significant
Readiness on the Implemented Flexible Learning	Sex	-0.269	0.788	Not Significant
	Senior High School Strand	0.774	0.591	Not Significant
	Family Monthly Income	0.373	0.828	Not Significant
Level of Engagement in using Flexible Learning Modality	Sex	-1.038	0.300	Not Significant
	Senior High School Strand	1.268	0.274	Not Significant
	Family Monthly Income	2.180	0.072	Not Significant

Data tested on a = 0.05 (two-tailed)

Variables that Predict Students' Level of Engagement the Flexible Learning Modality

Table 12 shows which between the two variables, attitudes and readiness toward flexible learning modality significantly relate to the students' level of engagement. The coefficient of determination r^2 is a measure of how much of the variability in the outcome/predicted variable, (identified level of engagement) is accounted for by the predictors namely attitude and readiness toward flexible learning modality. In the given model, its value is 0.706 which means that respondents' attitudes and readiness toward flexible learning modality account for 7.06% of the variation in students' level of engagement, and whatever variables enter the given model will account for an extra 0.0706- 0.006 or 6.46% of the variance in the variable level of engagement.

The b values indicate the individual contribution of each predictor to the model. Thus, as reflected in Table 4, attitudes toward flexible learning modality is positively related to the level of engagement based on the value 0.055, (b>0). This implies that students' attitudes toward the flexible learning modality has positively caused and affected the students' level of engagement. On the other hand, readiness toward the flexible learning modality

Table 12: Multivariate Regression Analysis to Determine the Predictor of the Students' Level of Engagement

Model	Unstandardized Coefficient		Standardized Coefficient	T	Sig.	Remarks
	b	SE b	β			
Constant	4.145	0.217	0.072	19.141	0.000	Related
Perceived Attitude	0.055	0.083	-0.116	0.666	0.506	Not Related
Perceived Readiness	-0.106	0.099		-1.067	0.287	
Number						

Dependent Variable: Level of Engagement, r =0.0706, r^2 =0.006, adjusted r^2 = 0.004

has a negative value; hence, a negative relationship exists between the variables' readiness and level of engagement the flexible learning modality.

The standardized beta values for the variables attitude and readiness are 0.072, and -1.067, respectively, indicating that the attitude toward flexible learning modality has an impact on the model; thus, its positively related to students' level of engagement.

Summary of Findings

The Salient Findings of this Study Were Summarized According to the Statement of the Problem

The salient findings of this study were summarized according to the statement of the problem:

Students' perceptions on the use of flexible learning modality in terms of their: attitude; readiness; and level of engagement. Based on the findings of the study, the respondents were found to be fairly positive attitudes towards flexible learning modality which obtained an overall weighted mean of 3.27 (N). On the other hand, the students' perceived readiness particularly on the dimensions of students' attributes, time management, and technical competence shows that students are moderately confident or on average level. However, their readiness in terms of communication revealed that they are confident in performing such as the use of synchronous and asynchronous technologies. On the contrary, the result of the students' level of engagement showed that they have a high level of engagement in their class which obtained a mean rating of 3.97. This mean rating is an equivalent description of "true of me", therefore, the students are highly engaged with the different activities of the said course.

Difference between students' demographic profile and their perceptions on the use of flexible learning modality: attitude; readiness; and level of engagement. Analysis of the results showed that the computed p-values are greater than the alpha level (α) of 0.05. Accordingly, there is no significant difference that exists between sex, senior high school strand, and family's monthly income to their attitude, readiness, and level of engagement in their classes utilizing the flexible learning modality.

Variables predict that students' level of engagement towards the flexible learning modality. Based on the analysis of the significant relationships of the variables—attitude and readiness towards flexible learning on the students' level of engagement in Environmental Science class—there is a negative relationship between the variables' readiness and level of engagement. However, the students' attitude toward flexible learning modality has an impact on the teaching approach, thus, there is a positive correlation to the students' level of engagement in Environmental Science class.

CONCLUSION

Based on the indicated findings, the following conclusions were drawn: The students' perceptions toward flexible learning modality with regard to their attitude revealed that the students were fairly positive with the learning modality. However, students are moderately confident with the set-up of the flexible learning modality. In addition, their level of engagement is noticeably high throughout their learning. The result of the comparison of the students' demographic profile and their perceptions of flexible learning modality implies no significant differences. The result of the relationship between the student's level of engagement and their perceptions of flexible learning in terms of readiness shows a negative correlation. On the contrary, there is a positive correlation between students' level of engagement to their attitudes toward the flexible learning modality.

RECOMMENDATION

After a thorough assessment and considering the forgoing findings of this study, the following recommendations are presented:

1. The flexible learning of the course offered in community college should be shifted to more personalized learning that may suit the learning needs and interests of the students and may eventually increase the students' attitudes and readiness and their level of engagement or become flexible learners.
2. The result of this study and with initiatives of the Students Affairs Services (SAS) of the Community College administrator should conduct student orientation and training development for flexible learning students. Students should receive the appropriate instruction and orientation and be prompted to consider their qualities as flexible learners, as well as their abilities in time management, communication, and technical skills, as these abilities are essential for flexible learning modality.
3. Similar research should be conducted and strive to include other courses including the way they learn the competencies or learning outcomes of a particular course. Moreover, future studies should also investigate teaching-learning strategies appropriate for flexible learning as well as how the modality impacted their academic performance. Moreover, the experiences of the instructors implementing the flexible learning modality should also be investigated.

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