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Short Paper*

Student-based Assessment on the Utilization of Innovative Teaching Methods in the New Normal

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Abstract

In this pandemic, a big change in the teaching and learning process had to be embraced by different learning sectors as the education sector is one of the most affected by the COVID-19 outbreak. Both teachers and students must be flexible in the use of different teaching and learning modalities to maintain the quality of education. Since face-to-face is not possible at this time, online learning, modular teaching, and video-based teaching are sample modalities that a teacher can use to deliver instruction. This study also aimed to describe the students' attitude and their learning satisfaction in the currently used teaching modalities by their teachers. The study revealed that most students favor the use of the modular method. The results also show that student-respondents' profiles found no significant correlation to their attitude in the modular approach while in the online approach, only sex was found related to attitude. Student-respondents' profile (i.e., number of siblings) was found to be significantly related to the assessment of modular approach in terms of delivery of instruction while age and income were found also related to assessment when analyzed in terms of online approach. Student-respondents' profiles had no significant correlation related to the assessment of

modular approach in terms of learning satisfaction while age and income were found related to assessment in terms of learning satisfaction when analyzed in terms of online approach.

Keywords – modular approach, online approach, learning satisfaction, delivery of instruction

INTRODUCTION

The outbreak of the COVID-19 pandemic affected all aspects of human activities globally ranging from sports, entertainment, transportation, worship, social gathering, economy, businesses, politics, and educational systems worldwide. According to Onyema et al. (2020), the education sector is one of the worst-hit by the coronavirus outbreak. Due to the nature of the virus, particularly how it is transmitted, different schools had to adjust to the new situation where face-to-face interaction and mass gatherings are restricted.

In this pandemic, a big change in the teaching and learning process had to be embraced by private schools, the Department of Education, and in Higher Education Institution (Cuaton, 2020). Everyone – from the operations and support service units to administrators and teachers – adjusted to work-from-home arrangements (Simbulan, 2020). Both teachers and students must be flexible in the use of different teaching and learning modalities to maintain the quality of education. Since face to face is not possible at this time, online learning, modular teaching, video-based teaching are sample modalities that a teacher can use to deliver instruction (Bagood, 2020).

As the classroom settings completely changed, several concerns arose particularly in the delivery of instruction and in the student's learning satisfaction in the use of the alternative mode of delivery. According to Simbulan (2020), this concern needs to be addressed to motivate students to actively engage in the teaching and learning process despite the new normal classroom setting because an effective learning process occurs when both teachers and students interact and participate in the learning activities.

Thus, this research could be a way to identify the most preferred teaching modality through student's assessment of the different alternative delivery modes currently use by their teachers. It is on this premise that this survey was conducted.

Statement of the Problem

This study dealt with the assessment of the student's respondents on the use of different alternative delivery modes. Specifically, this study will answer the following questions.

1. How may the socio-demographic profile of the students be described in terms of the following
   1.1. sex
   1.2. age
   1.3. order of birth
   1.4. no. of siblings
   1.5. monthly family income
2. What is the most preferred teaching modality of the student's respondents?
3. How may the student's respondents describe their attitude towards the following modalities?
   3.1. online
   3.2. modular
4. How may the following modalities be assessed by the student's respondents in terms of
   4.1. delivery of instruction
   4.2. learning satisfaction
5. Is there a significant relationship between the profile of the student's respondents and
   5.1. their attitude towards different teaching modalities
   5.2. their assessment on the use of different modalities?

METHODOLOGY

Method of Study

This study used the Descriptive method, also known as a survey or a normative approach. Nassaji (2015) defined Descriptive research methods have been very common procedures for researching many disciplines, including education, psychology, and social sciences. In this type of research, facts concerning the nature and status of anything (e.g., a group of people, several objects, a set of events, a system of thought, etc.) are studied to find out what is prevalent to establish standards. This is essentially a technique of quantitative description of the general characteristics of a group, an approach to problem-solving seeking to answer questions as to real facts relating to certain conditions. The general procedures used for this type of research were gathering (survey), classifications, interpretation, and evaluation.

According to Hart (2010), a survey is often the best way to get information and feedback to use in planning and program improvement. Designing and implementing a

survey is a systematic process of gathering information on a specific topic by asking questions from individuals and then generalizing the results to the groups represented by the respondents.

Statistical Treatment of Data

The statistical tools used in this study are the following: frequency distribution, percentage, weighted mean, standard deviation, and Spearman's correlation.

1. Frequency distribution was used to describe the profile of the students and determine the most preferred teaching modality of the student's respondents. It refers to a table that shows a body of data grouped according to numeric values (De Belen, 2015). It was a tabulation of the values that one or more variables take in a sample. Each entry in the table contains the frequency or count of the occurrences of values within a particular group or interval, and it summarizes the distribution of values in the sample.
2. The mean weighted average was employed to arrive at the verbal description of each item in the sealed checklist. The formula is as follows:

WM= TWF
Where:
TWF= the weighted frequency
N=the number of responses
WM= the weighted mean

3. The following limits and categories were applied for the attitude toward online and modular modalities: 4.2 – 5.0 – always; 3.4 – 4.1- often; 2.6 – 3.3- sometimes; 1.8 – 2.5 – rarely; and, 1.0 – 1.79 – never. For the average weighted mean: 4.2 – 5.0 – highly positive; 3.4 – 4.1- fairly positive; 2.6 – 3.3- neutral; 1.8 – 2.5 – fairly negative; and, 1.0 – 1.79 – highly negative.
4. The following limits and categories were adapted for student's assessment in the online and modular modality in terms of their learning satisfaction and delivery of instruction: 5.16 – 6.00 - strongly agree; 4.32 – 5.14 - agree; 3.49 - 4.31 - slightly agree; 2.66 – 3.48 -slightly disagree; 1.83 – 2.65 – disagree; and, 1.0 – 1.82- totally disagree. For average weighted mean: 5.16 – 6.00 –completely satisfied; 4.32 – 5.14 –mostly satisfied; 3.49 - 4.31 –somewhat satisfied; 2.66 – 3.48 –somewhat dissatisfied; 1.83 – 2.65 –mostly dissatisfied; and, 1.0 – 1.82- completely dissatisfied. The frequency count, percentage distribution, and weighted mean were employed to arrive at verbal descriptions of the items.
5. Spearman's rho formula was used to test the hypothesis. All statistical computations were carried out using the Statistical Package for Social Science (SPSS) v.21.

RESULTS AND DISCUSSION

The presentation of results, analyses, and interpretation of data followed the order of questions posted in the statement of the problem.

Profile of Student-respondents

Table 1 shows the distribution of the respondents according to their sex. Results of the study showed that 71% of the student-respondents were female and 29% were male. It only implied that most of the respondents are female. In support of the findings of the Philippine Commission for Women (PCW) 2016, the female Net Enrolment Ratio was 66.09 percent (66 in every 100 girls) while the male Net Enrolment Ratio was 56.63 percent (57 in every 100 boys). There was a greater disparity between girls and boys at 1.17 Gender Parity Index which is equivalent to 117 girls in every 100 boys.

Table 1. Distribution of Respondents According to Sex

Sex	Frequency	Percentage
Male	64	29
Female	156	71
Total	220	100.0

Table 2 shows the ages of respondents. Age was distributed in five categories: 18, 19, 20, 21, and 22 years old. Age 19 years old had the greatest number of respondents with 130 or 59.1%; 62 respondents or 28.2% were 20 years old; 12 respondents or 5.5% were 21 years old and the ages 18 and 22 years old had the least number of respondents.

Table 2. Distribution of Respondents According to Age

Age	Frequency	Percentage
18	8	3.6
19	130	59.1
20	62	28.2
21	12	5.5
22	8	3.6
Total	**220**	**100.0**

It also revealed that parents today are aware of the importance of education because the majority of the student-respondents belonged to the age 19 years old, and this age was the appropriate age for the Tertiary level (first year). Ali (2013) reported that age was among other factors that significantly affected the academic performance of graduate students.

Table 3. Distribution of Respondents According to Order of Birth

Order of Birth	Frequency	Percentage
1st	79	35.9
2nd	53	24.1
3rd	34	15.5
4th	32	14.5
5th	11	5.0
6th	5	2.3
7th	3	1.4
8th	3	1.4
Total	**220**	**100.0**

Table 3 shows the birth order of respondents. The majority of the student-respondents was the firstborn of the family or 35.9% while seventh and eighth had the least number of respondents or 1.4%. Gustafson (2015) used Alfred Alder's birth order theory to discuss the effects of birth order on one's personality. He stated that firstborns are more conservative. They were viewed as leaders who follow rules. They submit to authority. They were often more ambitious than other birth order positions and also more conforming. Furthermore, he suggested that firstborns tend to be more motivated to achieve than later borns.

On the contrary, Travis, and Kohli (2016), birth order was found to have a strong negative impact on educational achievement. This impact on the total years of education was only among members of the middle class. There was no impact on those who were either wealthy or poor.

Table 4 shows the distribution of respondents according to the number of siblings of respondents. The study revealed that the majority of the student-respondents had two siblings or 32.7 followed by 30.0% or had three siblings. Being an only child had the least number of participants. It implied that the majority of the student-respondents belong to small family size.

Table 4. Distribution of Respondents According to Number of Siblings

Number of Siblings	Frequency	Percentage
Only Child	16	7.3
2	72	32.7
3	66	30.0
4	39	17.7
5	27	12.3
Total	**220**	**100.0**

Cools and Patacchini (2017), stated that sibling relationships are regarded as one of the most intensive and influential relationships in an individual's life. Sibling size is

recognized as one of the most important predictors of determining a child's educational attainment and intellectual development. While many studies indicate that sibling size has a significant negative impact on children's education (Li & Lee, 2018), others show that sibling size has no impact or a positive impact (Qian et al., 2021).

Table 5 shows the monthly income of the family. It showed that most of the respondents or 60.0% were classified as poor income (Php 5,000-below); 25.9% were below average income (Php 5,001-10,000); 5.0% had an average monthly income (Php 10,001-15,000); 5.0% had above monthly income (Php 15,000-20,000); 2.7% had high income (Php 20,001-25,000); and only 1.4% or three out of 220 respondents had above high income (Php 25,001-above). It implies that there are more poor families than rich ones in this study.

Table 5. Distribution of Respondents According to Monthly Family Income

Income Bracket	**Frequency**	**Percentage**
Php 5,000 below	132	60.0
Php 5,001 - 10,000	57	25.9
Php 10,001 - 15,000	11	5.0
Php 15,001 - 20,000	11	5.0
Php 20,001 - 25,000	6	2.7
Php 25,001 – above	3	1.4
Total	**220**	**100.0**

According to the National Statistics Office Family Income and Expenditure Survey or FIES (2019), the average annual family income of Filipino families was Php 173,000. It only indicated that the annual income earned by the family of the student-respondents was below-average income. The results could be attributed to the parents' educational attainment as secondary graduates and most of the parents had no permanent work.

Furthermore, Ebenuwa-Okoh (2016) opined that if the finances of students are not adequate, the situation may affect their academic performance and student's academic performance may be enhanced if their financial needs are adequately met.

Table 6 shows the preferred teaching modality of the student-respondents. The majority of the students were found to be preferred in modular approach or 199 students out of 220 students. Only 9.5% of the sample population was preferred an online approach.

Table 6. Preferred Teaching Modality

Teaching Modality	**Frequency**	**Percentage**
Online	21	9.5
Modular	199	90.5
Total	220	100.0

According to Sadiq and Zamir (2014), Modular teaching is one of the most widespread and recognizes teaching-learning techniques in many countries including other Western countries and the Asian region. The modular approach is used almost in all subjects like natural science, specifically in biology and medical education and even in social sciences as well as in computers education (Oweis, 2018). The use of self-learning modules in teaching is another form of individual used instructions that have been adapted for a new classroom setting (Kiran & Lata, 2017).

The goal of the modules is to provide resources to instructors that will allow them to transform their classrooms into active, student-centered learning environments. This approach involves individualized instruction that allows learners to use self-learning modules (SLMs) in print or digital format/electronic copy, whichever is applicable in the context of the learner, and other learning resources like Learner's Materials, textbooks, activity sheets, study guides and other study materials (Bagood, 2020).

Student-Respondents Attitude

Table 7 shows the attitude of the student-respondents towards the online approach. The majority of the students were found to be favorable in their attitude towards the online approach. It was noteworthy to observe that no student was found to have an unfavorable attitude. Result suggests that a big number of the students feel the many advantages of the online approach way of teaching. The students were optimistic about the value of online classes. Finding gives the impression that the students were reasonably aware of the advantages and benefits of the approach and the positive prospects of the new modality.

All of the item statements in attitude towards online approach were found to be often for the student-respondents: they show eagerness and interest in the online approach; they appreciate the efforts of their teacher in the manner he/she presents the lessons; and escalate the uses of different materials by their teacher to make them easy to understand the lessons well; they do their projects and assignments diligently; learning new concepts is something they enjoy during online class; they do not feel any boredom; they are very attentive in listening; they feel satisfied in their accomplishment and the way they interact with their classmates during online class; they love online classes, and they are not complaining about the difficult projects/activities that the teacher requires them to do.

Furthermore, the average weighted mean (3.3), showed that the respondents had a fairly positive attitude towards online modality. Over the past decade, the Internet has had a profound impact on higher education by enabling the phenomenal growth of online learning. According to Stern, Online learning is education that takes place over the Internet. It is often referred to as "e-learning" among other terms. However, online

learning is just one type of "distance learning" - the umbrella term for any learning that takes place across distance and not in a traditional classroom.

Table 7. Attitude towards Online Approach

Attitude towards Science	Mean ($\dot{X}$)	Description
1. I show eagerness and interest to learn all lessons presented.	**3.5**	**Often**
2. I am enthusiastic to learn new ideas/concepts in our class.	**3.8**	**Often**
3. I find the lessons enjoyable	**3.2**	**Often**
4. I would describe this modality as being highly interesting	**2.9**	**Often**
5. I feel motivated to learn on my own.	**3.4**	**Often**
6. I am interested in the activities presented.	**3.3**	**Often**
7. I don't feel any boredom moment during my class.	**2.8**	**Often**
8. I enjoy doing all projects/activities assigned to me.	**3.2**	**Often**
9. I appreciate the efforts of my teacher in the manner he/she presents the lessons.	**4.0**	**Often**
10. I am happy and enjoying it very much.	**3.2**	**Often**
11. I love it. It gives me opportunities to experiment, discover and explore the things around me.	**3.4**	**Often**
Average Weighted Mean	**3.3**	**Often**

Legend: 4.2 – 5.0 – always; 3.4 – 4.1- often; 2.6 – 3.3- sometimes; 1.8 – 2.5 – rarely; and, 1.0 – 1.79 – never

Meanwhile, according to an encyclopedia of educational technology (Siddiqui, 2011), as cited by Baig (2011), online learning environments can be described as online domains that permit synchronous, collaborative interaction among teachers and students, while also providing Asynchronous learning resources for students at any time. Online distance learning meets the needs of an ever-growing population of students who cannot or prefer not to participate in traditional classroom settings. These learners include those unable to attend traditional classes, who cannot find a particular class at their chosen institution, who live in remote locations, who work full-time and can only study at or after work, and those who simply prefer to learn independently (Baig 2011).

However, the minimum requirement for students to participate in an online course is access to a computer, the Internet, and the motivation to succeed in a non-traditional classroom. As cited by Abdelmatloub (2020), online courses provide an excellent method of course delivery unbound by time or location allowing for accessibility to instruction at any time from anywhere. Learners find the online environment a convenient way to fit education into their busy lives. The ability to access a course from any computer with Internet access, 24 hours a day, seven days a week is a tremendous incentive for many of today's students.

Table 8 shows the attitude of the student-respondents towards the modular approach. The majority of the students were found to be favorable in their attitude

towards the modular approach. It was noteworthy to observe that no student was found to have an unfavorable attitude. Result suggests that a big number of the students feel the many advantages of the modular approach way of teaching. The students were optimistic about the value of modular modality. Finding gives the impression that the students were reasonably aware of the advantages and benefits of the approach and the positive prospects of the modular modality.

Table 8. Attitude towards Modular Approach

Attitude towards Science	Mean ($\dot{X}$)	Description
1. I show eagerness and interest to learn all lessons presented.	**4.2**	**Often**
2. I am enthusiastic to learn new ideas/concepts in our class.	**3.8**	**Often**
3. I find the lessons enjoyable	**3.8**	**Often**
4. I would describe this modality as being highly interesting	**3.3**	**Often**
5. I feel motivated to learn on my own.	**3.7**	**Often**
6. I am interested in the activities presented.	**3.4**	**Often**
7. I don't feel any boredom moment during my class.	**3.0**	**Often**
8. I enjoy doing all projects/activities assigned to me.	**3.5**	**Often**
9. I appreciate the efforts of my teacher in the manner he/she presents the lessons.	**4.4**	**Often**
10. I am happy and enjoying it very much.	**3.5**	**Often**
11. I love it. It gives me opportunities to experiment, discover and explore the things around me.	**3.6**	**Often**
Average Weighted Mean	**3.7**	**Often**

Legend: 4.2 – 5.0 – always; 3.4 – 4.1- often; 2.6 – 3.3- sometimes; 1.8 – 2.5 – rarely; and, 1.0 – 1.79 – never

All of the item statements in attitude towards modular approach were found to be often for the student-respondents: they show eagerness and interest in the modular approach; they appreciate the efforts of their teacher in the manner he/she presents the lessons; and escalate the uses of different materials by their teacher to make them easy to understand the lessons well; they do their projects and assignments diligently; learning new concepts is something they enjoy; they do not feel any boredom; they are very attentive in learning discoveries by their own; they feel satisfied in their accomplishment; they love modular modality, and they are not complaining about the difficult projects/activities that the teacher requires them to do.

Furthermore, the average weighted mean (3.7), showed that the respondents had a fairly positive attitude towards modular modality and a bit higher compared to online modality. The use of self-learning modules in teaching is another form of individual used instructions that have been adapted for a new classroom setting. This strengthens the ideas of Sadiq and Zamir (2014) that modular teaching is one of the most widespread and

recognizes teaching-learning techniques in many countries including other Western countries and the Asian region. In the research entitled "Effectiveness of Modular Approach in University Level", Sadiq and Zamir (2014) stated that the modular approach is used almost in all subjects like natural science, specifically in biology and medical education and even in social sciences as well as in computers education This approach involves individualized instruction that allows learners to use self-learning modules (SLMs) in print or digital format/electronic copy, whichever is applicable in the context of the learner, and other learning resources like Learner's Materials, textbooks, activity sheets, study guides, and other study materials.

Student-Respondents Assessment in Different Modalities

Table 9 shows the assessment in the online approach in terms of delivery of instruction. The students agreed that it is flexible in addressing the different types of learners; it is the most convenient mode of delivery; the objectives of the lesson are easily understood using this modality; it gives a clear explanation of the lesson. It encourages participation from students; the topics can be easily imparted to students the way the teacher explains the lesson; access to education increases through online learning and online learning offers maximum participation and engagement of students. Meanwhile, students were slightly agreed that this modality is often student-friendly and the interaction between student and teacher was strong through online learning.

Furthermore, the average weighted mean (4.6), showed that the respondents had agreed in all the item statements in assessing the online approach in terms of delivery of instruction. As cited by Stem, the minimum requirement for students to participate in an online course is access to a computer, the Internet, and the motivation to succeed in a non-traditional classroom. Online courses provide an excellent method of course delivery unbound by time or location allowing for accessibility to instruction at any time from anywhere. Learners find the online environment a convenient way to fit education into their busy lives. The ability to access a course from any computer with Internet access, 24 hours a day, seven days a week is a tremendous incentive for many of today's students.

Table 10 shows the assessment in modular approach in terms of delivery of instruction. The students agreed that it is flexible in addressing the different types of learners; it is the most convenient mode of delivery; the objectives of the lesson are easily understood using this modality; it gives a clear explanation of the lesson; it encourages participation from students; the topics can be easily imparted to students the way the teacher explains the lesson; access to education increases through modular learning; modular learning offers maximum participation and engagement of students; students were slightly agreed that this modality is often student-friendly and the interaction between student and teacher was strong though online learning.

Table 9. Student-Respondents Assessment in terms of Delivery of Instruction (Online Approach)

Item-statements	Mean ($\dot{X}$)	Description
1. It is flexible in addressing the different types of learners.	**4.8**	**agree**
2. It is the most convenient mode of delivery.	**4.8**	**agree**
3. The objectives of the lesson are easily understood using this modality.	**4.6**	**agree**
4. It gives a clear explanation of the lesson	**4.5**	**agree**
5. This modality is often student-friendly.	**4.3**	**slightly agree**
6. It encourages participation from students.	**4.8**	**agree**
7. The topics can be easily imparted to students the way the teacher explains the lesson.	**4.7**	**agree**
8. Student's and teacher's interaction is strong through online learning.	**4.3**	**slightly agree**
9. Access to education increases through online learning.	**4.4**	**agree**
10. Online learning offers maximum participation and engagement of students.	**4.4**	**agree**
Average Weighted Mean	**4.6**	**agree**

Legend: 5.16 – 6.0 – strongly agree; 4.32 – 5.14 – agree; 3.49 – 4.31 – slightly agree; 2.66 – 3.48 – slightly disagree; 1.83 – 2.65 – disagree; and, 1.0 – 1.82 – totally disagree

Furthermore, the average weighted mean (4.8), showed that the respondents had agreed in all the item statements in assessing the modular approach in terms of delivery of instruction. Slightly higher compare to the online approach. The goal of the modules is to provide resources to instructors that will allow them to transform their classrooms into active, student-centered learning environments. This approach involves individualized instruction that allows learners to use self-learning modules (SLMs) in print or digital format/electronic copy, whichever is applicable in the context of the learner, and other learning resources like Learner's Materials, textbooks, activity sheets, study guides, and other study materials. Learners can access electronic copies of learning materials on a computer, tablet PC, or smartphone. CDs, DVDs, USB storage, and computer-based applications can all be used to deliver e-learning materials, including offline E-books. The teacher takes the responsibility of monitoring the progress of the learners. The learners may ask assistance from the teacher via e-mail, telephone, text message/instant messaging, etc. Where possible, the teacher shall do home visits to learners needing remediation or assistance. Any member of the family or other stakeholder in the community needs to serve as a para-teachers.

Table 10. Student-Respondents Assessment in terms of Delivery of Instruction (Modular Approach)

Item-statements	Mean ($\dot{X}$)	Description
1. It is flexible in addressing the different types of learners.	**4.7**	**agree**
2. It is the most convenient mode of delivery.	**5.0**	**agree**
3. The objectives of the lesson are easily understood using this modality.	**4.6**	**agree**
4. It gives a clear explanation of the lesson	**4.5**	**agree**
5. This modality is often student-friendly.	**4.8**	**agree**
6. It encourages participation from students.	**5.0**	**agree**
7. The topics can be easily imparted to students the way the teacher explains the lesson.	**4.9**	**agree**
8. Student's and teacher's interaction is strong through modular learning.	**4.5**	**agree**
9. Access to education increases through modular learning.	**4.7**	**agree**
10. Modular learning offers maximum engagement of students.	**4.8**	**agree**
Average Weighted Mean	**4.8**	**agree**

Legend: 5.16 – 6.0 – strongly agree; 4.32 – 5.14 – agree; 3.49 – 4.31 – slightly agree; 2.66 – 3.48 – slightly disagree; 1.83 – 2.65 – disagree; and, 1.0 – 1.82 – totally disagree

Table 11 shows the assessment in the online approach in terms of learning satisfaction. The students agreed that they feel satisfied with their accomplishments in their subjects during online class; they were satisfied with the results of their assessment; they were satisfied that they were able to meet the learning objectives in online teaching; they were satisfied with the quality of teaching and learning can be through online teaching because it integrates various types of media; online teaching contributed greatly to their acquisition of relevant skills; online teaching ensures the effectiveness in terms of coping up with missed lectures and lastly, the productivity of students can be enhanced through online learning to strengthen educational concepts. Meanwhile, students were slightly agreed that they were satisfied with their learning from the online approach. Furthermore, the average weighted mean (4.7), showed that the respondents had agreed in all the item statements in assessing the online approach in terms of learning satisfaction.

Table 11. Student-Respondents Assessment in terms of Learning Satisfaction (Online Approach)

Item-statements	Mean ($\dot{X}$)	Description
1. I am satisfied with my learnings from an online approach.	**4.3**	**slightly agree**
2. I feel satisfied with my accomplishments in my subjects.	**4.9**	**agree**
3. I am satisfied with the results of my assessment.	**4.8**	**agree**
4. I am satisfied that I was able to meet the learning objectives in online teaching.	**4.9**	**agree**
5. I am satisfied with the quality of teaching and learning can be through online teaching because it integrates various types of media.	**4.7**	**agree**
6. Online teaching contributed greatly to my acquisition of relevant skills.	**4.7**	**agree**
7. Online teaching ensures effectiveness in terms of coping up with missed lectures.	**4.8**	**agree**
8. Productivity of students can be enhanced through online learning to strengthen educational concepts.	**4.7**	**agree**
Average Weighted Mean	**4.7**	**agree**

Legend: 5.16 – 6.0 – strongly agree; 4.32 – 5.14 – agree; 3.49 – 4.31 – slightly agree; 2.66 – 3.48 – slightly disagree; 1.83 – 2.65 – disagree; and, 1.0 – 1.82 – totally disagree

Table 12 shows the assessment in modular approach in terms of learning satisfaction. The students agreed that they feel satisfied with their accomplishments in their subjects during modular class; they were satisfied with the results of their assessment; they were satisfied that they were able to meet the learning objectives in modular modality; they were satisfied with the quality of teaching and learning can be through modular teaching because it integrates various types of media; modules contributed greatly to their acquisition of relevant skills; it ensures the effectiveness in terms of coping up with missed lectures and lastly, the productivity of students can be enhanced through self-module learning to strengthen educational concepts and that they were satisfied with their learning from the modular approach. Furthermore, the average weighted mean (4.9), showed that the respondents had agreed in all the item statements in assessing the modular approach in terms of learning satisfaction, higher than online modality.

Table 12. Student-Respondents Assessment in terms of Learning Satisfaction (Modular Approach)

Item-statements	Mean ($\dot{X}$)	Description
1. I am satisfied with my learnings from the modular approach.	4.6	agree
2. I feel satisfied with my accomplishments in my subjects.	5.0	agree
3. I am satisfied with the results of my assessment.	4.9	agree
4. I am satisfied that I was able to meet the learning objectives in modular teaching.	4.8	agree
5. I am satisfied with the quality of teaching and learning can be through modular teaching because it integrates various types of media.	4.8	agree
6. Modular teaching contributed greatly to my acquisition of relevant skills.	4.8	agree
7. Modular teaching ensures effectiveness in terms of coping up with missed lectures.	5.0	agree
8. Productivity of students can be enhanced through modular learning to strengthen educational concepts.	5.0	agree
Average Weighted Mean	**4.9**	**agree**

Legend: 5.16 – 6.0 – strongly agree; 4.32 – 5.14 – agree; 3.49 – 4.31 – slightly agree; 2.66 – 3.48 – slightly disagree; 1.83 – 2.65 – disagree; and, 1.0 – 1.82 – totally disagree

Relationship between Student-Respondents Profile and Attitude in Modular and Online Learning

Table 13 shows the correlational analysis to determine if there was a significant relationship between the demographic profile of the respondents and the attitude of the respondents towards modular and online learning. Spearman Rho Correlation was used as statistical with a 5% level of significance. The results indicate that sex was significantly correlated to attitude towards online learning since the p-values were less than .05 or p-value = .006. As reflected in the table, there was a weak negative correlation with r = -.185. Thus, female respondents have a negative attitude towards online learning.

Meanwhile, the analysis also shows that age, birth order, number of siblings, and family income were not significantly correlated to attitude toward modular and online learning since the p-values were all less than .05.

Table 13. Relationship of Student-Respondents Profile to Attitude in Modular and Online Learning

			Attitude Modular	Attitude Online	Verbal Interpretation
Spearman's rho	Sex	Correlation Coefficient	.082	-.185**	*Significant (online)*
		Sig. (2-tailed)	.226	.006	
		N	220	220	
	Age	Correlation Coefficient	-.021	-.132	*Not Significant*
		Sig. (2-tailed)	.758	.051	
		N	220	220	
	Birth	Correlation Coefficient	.037	-.042	*Not Significant*
		Sig. (2-tailed)	.588	.534	
		N	220	220	
	Siblings	Correlation Coefficient	-.091	.043	*Not Significant*
		Sig. (2-tailed)	.178	.526	
		N	220	220	
	Income	Correlation Coefficient	.007	-.127	*Not Significant*
		Sig. (2-tailed)	.915	.061	
		N	220	220	

Student-Respondents Profile and Delivery of Instruction of Modular and Online Learning

Table 14 displays the correlational analysis to determine if there was a significant relationship between the demographic profile of the respondents and the attitude of the respondents towards modular and online learning. Spearman Rho Correlation was used as statistical with a 5% level of significance. The results reveal that age and income were significantly correlated to the delivery of instruction since the p-values were less than .05 or p-values = .009, .013. The strength of relationships was negatively weak (r = -.178, -.167). Hence, older respondents with high family income perceived delivery of instruction under online learning negatively. Moreover, there was a significant negative relationship between number sibling and delivery of instruction under modular learning (p-value = .015, r = - .163). Meanwhile, the analysis sex and birth were not significantly correlated to delivery of instruction toward modular and online learning since the p-values were less than .05.

Table 14. Relationship of Student-Respondents Profile to Delivery of Instruction of Modular and Online Learning

			Delivery Module	Delivery Online	Verbal Interpretation
Spearman's rho	Sex	Correlation Coefficient	.079	.037	*Not Significant*
		Sig. (2-tailed)	.241	.584	
		N	220	220	
	Age	Correlation Coefficient	.026	-.176**	*Significant (online)*
		Sig. (2-tailed)	.704	.009	
		N	220	220	
	Birth	Correlation Coefficient	.039	.015	*Not Significant*
		Sig. (2-tailed)	.564	.827	
		N	220	220	
	Siblings	Correlation Coefficient	-.163*	-.072	*Significant (modular)*
		Sig. (2-tailed)	.015	.285	
		N	220	220	
	Income	Correlation Coefficient	-.013	-.167*	*Significant (online)*
		Sig. (2-tailed)	.849	.013	
		N	220	220	

Student-Respondents Profile to Learning Satisfaction in Modular and Online Learning

Table 15 shows the analysis to determine if there was a significant relationship between the demographic profile of the respondents and the attitude of the respondents towards modular and online learning. Spearman Rho Correlation was used as statistical with a 5% level of significance. The analysis shows that age and income have significant negative to learning satisfaction towards online learning since the p-values were less than .05 or p-value = .000, .004. Thus, older respondents with higher family income have lower satisfaction towards online learning. On the other hand, sex, birth order, and the number of siblings have no significant relationship towards learning satisfaction of modular and online learning.

Table 15. Relationship of Student-Respondents Profile to Learning Satisfaction in Modular and Online Learning

			Satisfaction Modular	Satisfaction Online	Verbal Interpretation
Spearman's rho	Sex	Correlation Coefficient	.089	-.069	*Not Significant*
		Sig. (2-tailed)	.187	.309	
		N	220	220	
	Age	Correlation Coefficient	-.004	-.258**	*Significant (Online)*
		Sig. (2-tailed)	.949	.000	
		N	220	220	
	Birth	Correlation Coefficient	.075	.036	*Not Significant*
		Sig. (2-tailed)	.265	.594	
		N	220	220	
	Siblings	Correlation Coefficient	-.108	.108	*Not Significant*
		Sig. (2-tailed)	.110	.111	
		N	220	220	
	Income	Correlation Coefficient	.005	-.194**	*Significant (Online)*
		Sig. (2-tailed)	.938	.004	
		N	220	220	

CONCLUSIONS

Based on the findings of this study, the following conclusions were drawn: the majority of the student-respondents in terms of sex were female, the age 19 had the greatest number of respondents, firstborn, had two siblings and classified as poor income family; the majority of the student-respondents were found to be preferred in modular approach; the majority of the student-respondents found more favorable the modular approach compared to online approach towards their attitude; the majority of the student-respondents assessed the modular approach to be more agreeable compared to the online approach in terms of delivery of instruction, and the majority of the student-respondents assessed the modular approach to be more agreeable compared to the online approach in terms of learning satisfaction.

In terms of relationship, the student-respondent's profile had no significant correlation to their attitude in modular approach while in online approach, only sex was

found related to attitude. Student-respondents profile (number of siblings) was found to be significantly related to the assessment of modular approach in terms of delivery of instruction while in the online approach, age, and income were found also related to assessment. Respondents' profiles had no significant correlation related to the assessment of modular approach in terms of learning satisfaction while in the online approach, age, and income were found related to assessment in terms of learning satisfaction.

RECOMMENDATIONS

Given the aforementioned conclusions, the following recommendations are hereby offered: the modular approach is a unique way of teaching and the preferred modality of most students' respondents so the teachers should be provided enough training about how to design and implement a module in a classroom setting and adopt numerous learning delivery options such as but not limited to face-to-face, blended learnings, distance learnings, and home-schooling and other modes of delivery.

In terms of teaching, teacher training to online instruction, blended learning, and distance learning are also recommended to adjust to the new instructional format. Teacher competencies in both pedagogy and technology should be reinforced. Consideration must be given to ways of ensuring that adequate time is planned for practice and feedback before the summative assessment takes place.

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