Pedagogical Practices in Modular Distance Learning among Secondary School Teachers

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Abstract: *The purpose of this study is to investigate the pedagogical practices employed by secondary school teachers under the new normal. It also identifies the difficulties teachers face when facilitating modular distant learning. Science high school teacher from North District Butuan City took part in the study. In this study, quantitative methodology was employed. To collect the data for the study, survey questionnaires were distributed. According to the research study's findings, the restricted face-to-face parent orientation is the most used pedagogical practices in the new normal, specifically in modular distance learning is the limited face-to-face parent orientation. Enables teachers to incorporate ICT skills to students' lessons even in modular distance learning, aids in monitoring students' learning performance using self- learning modules in modular distance learning. Miscommunication because of the distant mode of instruction and difficulties in reaching students due to pandemic are some of the challenges encountered by the teachers in applying pedagogical practices. To address this issue, the researchers designed a capsule training intervention plan that will help teachers enhance their knowledge in choosing and effective pedagogical practice particularly in modular distance learning.*

Keywords: Capsule training program, limited face-to-face parent orientation, modular distance learning, pedagogical practices, self-learning modules

1. INTRODUCTION

Quality education molds the lives of students. Thus, it's essential for teachers to have efficient pedagogy in place. Teachers are ought to provide quality instruction while simultaneously assessing their learners' needs despite the sudden change of educational system brought about by the Covid 19 pandemic. The Department of education adopt the alternatives way that replace face-to-face teaching and learning.

Teachers during pandemic preferred to conduct activities through online to ensure that instruction could continue even if schools were closed (OECD, 2020).

In coping with the challenges during this season, basic education sector of the country implemented distance learning fitted to the so called new normal way of facilitating the teaching and learning process. This new normal way of education the young minds is in consonance every school's mission and vision, which primarily to deliver a high-quality instruction to every Filipino student.

Distance learning modality has three types, namely, Online Distance Learning (ODL), TV/Radio Based Instruction and the Modular Distance Learning (MDL) (Quinones, 2020).

Sequeira, (2012) gave emphasis that distance learning becoming the trend of the new normal. The use of the self-learning modules is now the immediate action in sustaining education. In this mechanism of learning, it allows students to have individualized methods of learning. Self-learning modules are developed so that the learner has complete control over what, how, when, and where they learn.

However, this flexibility of learning is so crucial feature of the open learning process. A study of (Tirri et al., 2019), stated that self-learning modules are also intended to give students with a solid knowledge background as well as real-world learning experiences. Nevertheless, the teacher's participation is critical in this regard; a teacher must incline himself in the creation of modules using his own pedagogical method at the same time engaging and implementing teaching practices, helping the student to engage in the modular class, for this is the only way in ensuring the learning.

The participation of teachers in the development of scientific modules guarantees that students learn the most important learning competencies for the discipline. A well-designed pedagogy can improve the quality of teaching, and the suitable technique can motivate learners to participate in cognitive thinking. Having right pedagogy supports individuals and their preferred learning patterns, so then the students can surely benefit from it. It helps children comprehend important ideas more clearly (Persaud, 2021).

In teaching, pedagogy refers to the teacher's comprehension of how students learn. Teachers are committed to modifying the curriculum to the interests of their students. Teacher-student relationships in the classroom are essential for pedagogy and have a significant effect on the learner's mind (Shirke, 2021). The new normal pedagogy has direct impact on students' academic success, skills development, etc. Pedagogy can be defined as the approach to teaching either in theory or practice. It involves creating a

learning environment and culture around students that aids their skill development. It encourages the students to work together towards completing a task and learn together, it increases their perceptions by understanding and taking views from other students.

The researchers aim to conduct this study notwithstanding the theories which are related to it because there isn't any published or documented research on various pedagogical practices in modular distance learning, notably in teaching secondary high school science students. In addition, the researchers want to conduct this study because of the following reasons: first, is to find out the different pedagogical practices that the teachers utilized in dealing with modular distance learning. Second, to determine what pedagogical practice is more effective and efficient in modular distance learning, Third, is to discover what are challenges and opportunities encountered by the teachers in managing with a new normal classroom.

With the abovementioned research intentions. This study will provide relevant information mainly with how teachers provide quality education despite the COVID-19 pandemic and its new normal setting of learning. Lastly, this study will offer greater insights as to how teaching practices are beneficial in the new normal classroom.

2. RELATED WORKS

This study is supported by the three (3) learning theories, which are the behaviorism, cognitivism, and the pedagogy theory.

The first learning theory explored in this study is behaviorism by John B. Watson (1924). Also referred to as behavioral psychology, behaviorism is a theory that asserts all behaviors are learned through conditioning stimuli based on one's interactions within their environment. In other words, our actions and reactions are dictated by what we experience around us.

According to (Bainbridge, 2012), "extrinsic motivation" refers to motivation that comes from outside an individual. The teacher's responsibility is to give information, while the student's role is to receive it. It supports learners should be proactive in what they respond to for learning to take place in the distance education environment. Instructors or teachers may demand students to answer questions given in a modular learning course in a modular distance learning environment.

The cognitivism learning theory, created by Jean Piaget, suggests that all children go through similar phases of cognitive development based on their age (Morales & Gray, 2021), on the other hand, Brandi (2021) argued that cognitivism is "the psychology of learning which emphasizes students' cognition or knowledge as an empowering ability enabling them to develop theories and grow mentally." The key concepts

of cognitivism relate to how learners think and process information. Additionally, it encompasses analyzing aspects of learning such as memory, critical thinking abilities, and insight.

Flippen (2012) claims that cognitivism centers around the human mind and, more precisely, mental processes such as thinking, knowing memory, and problem-solving in order to understand how a person's thoughts develop. Data is interpreted as pattern developments, with learning being seen as an alteration of the student's schemata or pre-existing knowledge.

According to Western Governors University (2020), cognitive learning can help learners become more invested and driven by providing them with a fresh perspective on themselves and their brains. People may enhance their abilities by gaining access to important knowledge and mental strength through cognition

1. RESEARCH METHODOLOGY

The study used a quantitative research design since it quantifies the data gathered to determine the new normal pedagogical practices, especially in modular distance learning's and difficulties faced by teachers when applying pedagogical methods in modular distance learning.

The research participants are secondary education science teachers who employ modular pedagogical practices in teaching science in the new normal are among the participants in the study. The study's participants were the 30 secondary science teachers especially the Grades 9 and 10 from the North District Division of Butuan City. The table below displays the total number of participants in the research study.

The answers of the participants on the use of pedagogical practices to teach in modular distance learning, challenges encountered by the teachers in applying pedagogical practices in modular distance learning and level of teacher's experience in facilitating modular distance learning in terms of using different pedagogical practices were treated by the following statistical measurement or scale of mean, range, value, and its descriptive equivalent.

1. RESULTS AND DISCUSSIONS

Problem 1. What are Pedagogical Practices Applicable for teachers in teaching grade 9 and 10 science students?
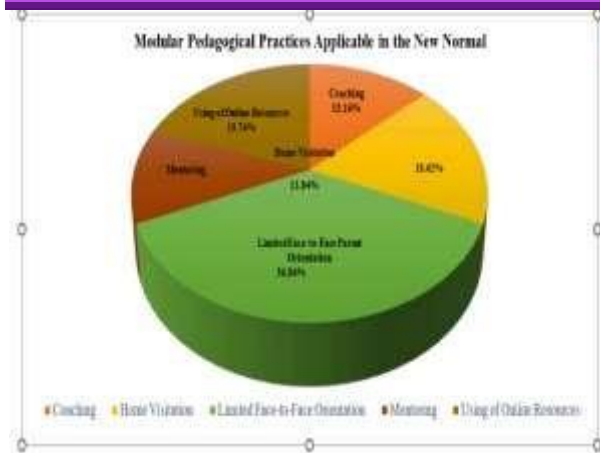
Figure 1. Graphical Presentation of the Pedagogical Practices Applicable in the ModularDistance Learning

Figure 1 represents the pedagogical practices applicable in modular distance learning. The pie graph shows the data of the pedagogical practices applicable in the modular distance learning. There were 36.84% of the teachers uses limited face-to-face orientation, 19.74% for using the online resources, home visitation for 18.42%, coaching for 13.16% and 11.84% for mentoring. This mainly implies that among these pedagogical practices (Coaching, Home Visitation, Limited Face-To-Face Parent Orientation, Mentoring, And the Use of Online Resources) the Limited Face-To-Face Orientation ranked 1st having the frequency of 28 which corresponds to 36.84% out of the total number. On the other hand, mentoring ranked 5th having the lowest frequency of 9 that only comprises 11.84% out of the total number

The limited face-to-face parent orientation has been widely used by all of all the schools particularly in modular distance learning. The limited face-to-face parent orientation being the most used pedagogical practice is supported by Anuj (2021). He defines parent orientation as a more sophisticated parent-teacher conference. To ensure all-around student growth, it is typically organized once a month or a few times a year. Parent orientation has a lot of benefits which includes helps parents to know their child's interest, improves academic growth, a better understanding regarding with the grading system, to voice opinion, knowledge of the new technologies implemented by schools and lastly it helps to increase the motivation and confidence among learners.

Table 1. The Use of Pedagogical Practices to Teach in Modular Distance Learning

Indicator	Mean	Verbal Description
1. Improves teachers 21st Century teaching strategies and methodologies.	4.20	Acceptable
2. Helps teachers present the lesson clearly.	4.03	Acceptable
3. Enables teachers incorporate ICT skills to student's lessons.	4.53	Very Acceptable
4. Provides teachers immediate access to instructional and learning resources.	4.43	Acceptable
5. Aids in monitoring student's learning performance through the use of Self Learning Modules (SLMs).	4.37	Acceptable
6. Provides convenience in tracking student's scores and records.	4.03	Acceptable
7. Improves teachers and students' communication.	4.03	Acceptable
8. Helps teachers to facilitate diverse learners.	3.80	Acceptable
9. Supports teachers to create and incorporate effective assessments for students	4.10	Acceptable
10. Supports teachers to create effective strategies to meet the students' learning competencies.	4.10	Acceptable
Average	4.16	Acceptable

Legend: 1.00-1.50-Not Acceptable, 1.51-2.50-Acceptable, 2.51-3.50-Moderately Acceptable, 3.51-4.50-Acceptable, 4.51-5.00-Highly Acceptable

Table 1 presents the use of pedagogical practices to teach in modular distance learning. As shown in the table above, indicator number 3 which states that "enables teachers to incorporate ICT skills to student's lesson" has the highest mean of 4.53 which indicates "Very acceptable" which signifies that those pedagogical practices can help teachers in integrating the Information and Communication Technology (ICT) skills to student's lesson even in modular distance learning. On the other hand, indicator number 8 which states that "helps teachers to facilitate diverse learners" which has the lowest mean of 3.80 which indicates "Acceptable".

This mainly signifies that the participants believed that the practices are not totally helpful in teaching diverse learners particularly in modular distance learning. Overall, the weighted mean regarding with the problem "the use of pedagogical practices to teach in modular distance learning" is 4.16.

This means that teachers agreed that pedagogical practices are helpful and beneficial in terms of teaching in modular distance learning. According to Dean (2019), many teaching practices and strategies are applicable to any classroom, regardless of age of the students or the subject. When a teacher employs a variety of effective teaching practices and strategies, their learners have a greater chance of succeeding in class and most especially, the learners can develop and acquire skills that are useful in solving real world problems.

Table 2. Challenges Encountered by the Teachers in Applying Pedagogical Practices in ModularDistance Learning

Indicators	Mean	Verbal Description
1. Being unable to manage time because of the preparations.	3.90	High
2. Misconceptions in applying specific pedagogical practice in teaching diverse students	4.17	High
3. Miscommunication because of the distant mode of instruction.	4.57	Very High
4. Expensive in terms of time and transport facilities are required.	3.90	High
5. The number of people who can be contacted within a given period is limited due to health risk posed by COVID-19 pandemic.	4.47	High
6. Difficulties in reaching students due to pandemic.	4.53	Very High
7. Failure in accommodating student's needs because of the limited time and resource.	4.07	High
Overall	**4.23**	**High**

Legend: 1.00-1.50-Very Low, 1.51-2.50-Low, 2.51-3.50-Moderate, 3.51-4.50-High, 4.51-5.00-Very High

Table 2 presents the challenges encountered by teachers in applying pedagogical practices in modular distance learning. In the table, it can be observed that indicator number 3, miscommunication because of the distance mode of instructions, gain the highest mean of 4.57 which indicates "Very High".

This signifies that science teachers always struggle with miscommunication because of the distant mode of instructions. Alawamleh, et. al. (2020), states that communication particularly in education should focus on the interaction between teachers and students to further develop knowledge and understanding regarding with the lessons presented. Communication is just the exchange of information starting with one individual then onto the next. Effective communication is a course of trading thoughts, ideas, information, and knowledge in such a way as to fulfill the intent in the best possible way.

On the other hand, indicator number 1, being unable to manage time because of the preparation, and indicator number 4, expensive in terms of time and transport facilities garnered the same lowest mean of 3.90 which indicates "High". This signifies that teachers still find this matter as a challenge particularly in facilitating students in modular distance learning.

According to Nusrallah, and Khan (2015), using time management is vital and it might really influence person's general presentation and accomplishments. These are related by how people deal with their opportunity to suit their everyday living or to make it flow consistently with their routines. Time management plays a fundamental part in improving on teacher's performance and accomplishments. Every single teacher ought to have time management capacity which incorporates setting goals and priorities, utilizing time management component, and being coordinated in utilizing time. Using time effectively is just possible

through self- motivation, performance, capacity, and inspiration. Those focused in explicitly on using time productively are in many cases fixated on laying out objectives and priorities, the mechanics of using time management, or potentially one's preference for organization preference for a well- organized rather than disorganized workday suggested that time management training ought to increase in those areas and, this ought to increase perceive control of time (Hamid, et. al., 2015)

Based on the data analysis acquired from the mean distribution of the challenges encountered by the teachers in modular distance learning reveals that the overall weighted mean is 4.23 which indicates agree. This suggest that a higher overall weighted average means that they have similar perceive challenges encountered in the variable. According to Agayon et al. (2022), teachers face different challenges due to these abrupt changes in the new educational system. Modular Instruction, as an alternative modality for learning continuity, resulted in various challenges. One of the teachers' capacities is to adjust despite affliction. Various difficulties appear, and teachers are as yet changing in accordance with the new normal. Although the committed effort of teachers in performing their duties are profoundly significant and can't be overlooked.

Table 3. Level of a Teacher's Experience in Facilitating Modular Distance Learning in Terms of Using Different Pedagogical Practices

Indicator	Mean	Verbal Description
1. I have difficulties in facilitating students using pedagogical practices	3.70	Satisfactory
	3.70	Satisfactory
2. I sometimes feel confused on what specific teaching practice I should use to meet my student's needs particularly in modular distance learning.	3.77	Satisfactory
3. I struggle in applying pedagogical practices because of the presence of COVID-19	3.60	Satisfactory
4. I was unable to assist students because of the limited recourses in applying pedagogical practices	4.27	Satisfactory
5. I feel motivated in teaching students whenever I used the effective teaching practice	4.50	Very Satisfactory
Overall	**3.92**	**Satisfactory**

Legend: 1.00-1.50-Very Poor, 1.51-2.50-Poor, 2.51-3.50-Fair 3.51-4.50-Satisfactory, 4.51-5.00-Very Satisfactory

Table 3 presents the level of a teachers' experience in facilitating modular distance learning in terms of using pedagogical practices. As shown in the tableabove, indicator number 6 which states that "I feel satisfied whenever I communicate to my students effectively with the use of pedagogical practices" contributed the highest mean of 4.50 which indicates

"Very Satisfactory". Generated mean indicates that teachers are most likely to feel motivated and satisfied whenever they can communicate effectively and deliver the lesson properly with the use of pedagogical practices.

According to an article by Orabi (2020), the primary role of the teacher in distance education whether it is online or modular, is to design mechanisms and implementation procedures to manage teaching and learning processes base on the needs of the learners. The teacher must also be prepared to guide students and provide them with the necessary support.

On the other hand, indicator number 4 which states that "I was unable to assist students because of the limited resources in applying pedagogical practices" garnered the lowest mean of 3.60 which indicates "Satisfactory" or the participants are most likely to struggle in assisting students because of the limited resources in applying pedagogical practices particularly in modular distance learning. According to Acharya, (2017), educational resources are used in a learning environment to aid in the development and learning of individuals and are intended to reinforce learning and, in some cases, to put people knowledge to test. Educational resources are great for assisting teachers and educators in delivering high quality lessons and education.

Overall generated mean of the level of a teachers' experience in facilitating modular distance learning in terms of using pedagogical practices is 3.92 which indicate "Satisfactory". This implies that teachers are most likely to face different challenges but still manage to have motivations and continue to give positive environment to every learner even in these trying times.

3. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the following conclusion were drawn.

The pedagogical practices are applicable in the new normal that the teacher-participants used or integrate in the modular distance learning are effective for the students' learning. The use different pedagogical practices assisted the participants to expand and to further elaborate the topic and lesson effectively. Pedagogical practices also allow students to fully comprehend the topic and the subject to enhance their skills that will be used the real problem situation.

Most used pedagogical practice in modular distance learning is the limited face-to-face parent. Limited face-to-face parent orientation is beneficial

for teachers, parents, and students as well. Limited face-to-face parent orientation enable the teachers to communicate to the parents regarding with the issues and the development of their learners. In addition, parent orientation assists parents in understanding their children, school, and the entire system. All of these are done to ensure child's overall development.

The following are the recommendations based on the findings and conclusions of the study:

1. The teachers in the secondary education level may adapt some of pedagogical practice than can be applied in modular distance learning setting.

2. The teachers may orient parents and students how these pedagogical practices work to enhance active learning in a new normal classroom.

3. The teachers may use limited face-to- face parent orientation to involve parents in guiding learners in answering the self-learning modules.

4. The school may include seminar and training programs for teachers to enhance their understanding and skills regarding pedagogical practices in modular distance learning

5. Future researchers may conduct studies that will further address concerns about integrating effective pedagogical practice in modular distance learning

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