

Perceived Effects of Modular Distance Learning on the Students in Aumbay Elementary School

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Abstract-- This research aimed to gather data on the perceived effects of modular distance learning on students. The following research objectives informed this research: 1) to determine the perceived effects of modular distance learning on the students and 2) to determine the significant difference in the perceived effects of modular distance learning on grades 4,5 and 6 students. This quantitative study employed a descriptive survey to determine and identify the perceived effects of modular distance learning on grades 4,5 and 6 students. The research instrument used in this study is a survey questionnaire, which is used to acquire the necessary data. Based on the result, the study revealed that students agreed on using modular distance learning as a teaching method. They agreed most with the statements and the benefits of this approach. The study also revealed no significant difference in the perceived effects of modular distance learning on students when categorized according to gender. This means that students had the same perceptions when categorized according to gender. However, the study also revealed a significant difference in the perceived effects of modular distance learning on the students when categorized according to their grade level. It means that students had a different perception when they were grouped according to their grade level. Therefore, researchers concluded that in terms of gender, modular distance learning was not affected by their perception of the modular approach. At the same time, the perception of the students had a difference in terms of their grade level. This study implies that this modular distance learning approach helps students improve their perception of modules. Therefore, a modular approach must be continued in face-to-face instruction even if the pandemic vanishes. Researchers may recommend to the faculty/teachers in Aumbay Elementary School to use modules so students can study in advance; teachers/faculty might monitor their student's progress and be more flexible and even-minded in any situation to provide and help the students. Moreover, Schools may provide guidelines regarding the implementation of limited face-to-face and modular distance learning so that students can learn in different approaches; parents should also give attention to their children and support them in such activities. Furthermore, future researchers may incorporate other variables when they conduct a study related to our research.

Keywords—modular approach, perceived effects, modular distance learning, students

I. INTRODUCTION

Modular learning is a form of distance learning that uses self-learning modules (SLM) based on the essential learning competencies (MELCS) provided by DepEd. A modular distance learning approach would be more effective than the other approach (Furey & Martin, 2018), which Nardo (2017) mentioned that modules encourage independent study.

The COVID-19 pandemic at Huanan Seafood Market in Wuhan, China, in December 2019, within a month, it has turned out to be a global health crisis. The COVID-19 pandemic resulted in widespread disruptions such as travel restrictions, school closures, and global economic recession. The educational setup has changed, wherein instead of physical classes, the Department of Education (DepEd) has implemented distance or remote learning. They implemented numerous distance learning modalities such as; printed modules, online learning, tv or radio-based instruction, and other modalities that the teachers and students used in their distance classes.

Schools are the main places where students can enjoy and, simultaneously, improve or develop their skills, abilities, and cognitive levels. Trovela (2020) states that students experience difficulty adjusting to the implementation of modular distance learning, wherein they struggle to study because of the lack of physical guidance and interactions with their teachers. Aside from that, students do not have the same levels of understanding, and not all students are equally intelligent when it comes to the different module lessons when doing self-study at home.

In line with the above discussion, many students are struggling in their learning using modules, wherein most of the students cannot complete the activities in their modules and cannot do their performance tasks due to the significant number of activities and many exercises, as well as due to the lack of guidance and instructions from their teachers. That is why researchers conducted this study to know and identify if there are perceived effects of modular distance learning on the students and to determine if there is a significant difference in the Perceived Effects of Modular Distance Learning on the Students when categorized according to gender and grade level in Aumbay Elementary School.

A. Statement of the Problem

This study aims to identify and determine the significant Perceived Effects of Modular Distance Learning on Students in Aumbay Elementary School. It specifically aims to answer the following questions:

- 1) What are the perceived effects of modular distance learning on the students in Aumbay Elementary School?
- 2) Is there a significant difference in the perceived effects of modular distance learning on the students when they are categorized according to:

- 2.1) gender; and
- 2.2) grade level?

B. Significance of the Study

The findings of this research study are significant for the following:

- 1) *Faculty/Teachers*--The data or information the researchers gathered in this study is helpful to the faculty/teacher because the result of this research will serve as a basis or guide for the faculty/teachers of Aumbay Elementary School for them to create and innovate new learning methods to improve their modes of delivering their modules to have a better teaching and learning process even if this pandemic disappears.
- 2) *Schools*--This research is beneficial to the schools because it will provide an effective plan to develop the teaching-learning process further and know how to implement modular distance learning effectively.
- 3) *Parents*--This research is beneficial to parents because it will serve as a guide for the parents in Aumbay Elementary School to assist their children in answering the activities of the modules.

C. Theoretical Framework

This study is primarily based on the Constructivism Learning Theory of Dewey (1938), based on observation and scientific study about how people learn. Where learners construct knowledge rather than just passively taking information and confront their understanding in line with what they encounter in the new learning situation, he posited that students learn best when they engage in learning experiences rather than passively receiving information because knowledge cannot be directly imparted to students and that learning is a social process because it is embedded within a social context as students and teachers need to work together to build knowledge. As cited by Driscoll (2000), constructivism learning theory is a philosophy that enhances students' logical and conceptual growth. The constructivism learning theory's fundamental concept is the role that experiences or connections with the adjoining atmosphere play in student education. Constructivism learning theory argues that people produce knowledge and form meaning based on their experiences.

According to Tam (2000), the constructivist theory is the best way to define learning. In order to promote students' learning, learners must be directly exposed to materials being studied and to a suitable learning environment to provide the students with an opportunity for active learning.

There are several approaches to problems that use prior knowledge and teamwork. Constructivism claims that the purpose of learning is to construct an individual's meaning from learning. Since the modular approach encourages independent study (Nardo, 2017), students construct their knowledge to understand and learn the concept of the modules. The modular theory of learning

and performance improves learners' learning, perception, memory, and decisions through a modular approach. One positive perceived effect of modular distance learning is that students know or learn at their own pace. With this modular approach, students have free time to choose which tasks they prefer to do and accomplish their modules, but with a specific deadline to meet (Manalili, 2022).

II. LITERATURE REVIEW

Modular Distance Learning

According to Magsambol (2020), DepEd will implement a distance learning approach to ensure that learning remains unhampered. In this learning delivery mode, interaction takes place between the teacher and the students. They are not in the exact location during the teaching and learning process. In which teachers will use modules in order to deliver their lessons to the learners. Based from the study of Vallespin (2021), modular learning is a form of distance learning that uses self-learning modules (SLM) based on the most essential learning competencies (MELCS) provided by DepEd. According to Llego (2020), modular distance on their own, they learned how to learn; they were empowered.

The modular approach has its limitations when completing the modules used for instructions. Most of its limitations are a short duration which teachers cannot accomplish with only one week. A modular approach would be more effective than the other approach (Furey & Martin, 2018). Nardo (2017) mentioned that modules encourage independent study. Wherein he stated that one of the benefits of using modules for instruction is the acquisition of better self-study or learning skills that can help the students to develop a way of responsibility in accomplishing the tasks being provided through their module, learners progress on their own with or without the guidance of others. According to Bijeesh (2021), students can save money because of reduced financial obligations and can save time because of shorter travel times.

Abramovits et al. (2021), the self-learning method permits overcoming challenges like the lack of student-teacher interaction. According to Estrada (2021), the modular approach might not work. Additionally, she said there is a lack of feedback and many more challenges concerning modular learning. However, because we are still in the middle of a pandemic, it is not the students' or the teachers' fault. Even they will have a more challenging time adjusting to the new normal. She also mentioned that it is hard for the students to absorb new information when no one is there to guide them (or at least empathize), especially when the lessons become too much. Guido (2014) also stated that Modular Distance Learning (MDL) is an approach that contains a series of activities, each of which starts with teaching instructions addressed to the learners, explanation, exercises, and generalizations.

Guilhardi et al. (2007) mentioned that the modular theory of learning and performance was developed. Perception, memory, and choice are three aspects of this modular paradigm of learning and performance. This modular theory is a variation

on packet theory that distinguishes between pattern and strength memory and contributes closed-form equations. The name “packet theory” comes from focusing on the decision module, which is the foundation for bouts of responses. However, the perception and memory modules are equally vital to the choice module.

According to the study by Alebaikan (2012), the quality of learning and teaching experience impacts students and lecturers. The study concluded that Saudi women continued to pursue their degrees through Modular Distance Learning despite their traditions and personalities. In addition, the study's findings revealed that Modular Distance Learning offers prospective mechanisms for improving student engagement and learning.

In the study Jin-Young (2012) conducted regarding the interrelation effects of tradition, personality traits, and modular distance learning, he probed into the influence of personality types and situational factors on public speaking. Malik (2012) also contended that the teaching approach in modularized programs should allow students to proceed at their own pace, choose which they prefer to learn and recognize their strengths and weaknesses.

On the other hand, Natera (2013) said that a Filipino student from a Hong Kong college discussed the government's failures in realizing the aim of educational reform in the Philippines. It questioned the government's vision of educational reform and suggested that the role of modular learning in education be reconsidered. A shift in perspective, curriculum assessments, and work practices have all been identified as necessary components for long-term educational reform. The study suggested reviewing the scheduling plan and practicing team teaching and teacher and student training in collaborative technology. A policy standpoint requires a program framework, a modular learning curriculum, and an evaluation.

Based on the findings and conclusion of the study by Robles (2012), they recommended that the modular approach be utilized by the faculty/teachers in teaching education subjects. Faculty/teachers need effective planning and upgrading to address critical issues, such as establishing appropriate assessments and rubrics. So, the teachers need to be technology experts. This innovation recommends that teachers must learn.

"Education without Borders," written by Morales (2016), emphasized the idea of modular education; modular Distance Learning is not a Revolution idea. On the other hand, it is a return to what is natural. In this back-to-basics approach, the child's natural learning tendencies, interests, and passions are respected as much as the prescribed curriculum. This addresses the disadvantages found in traditional schooling, such as too many students, too few mentors, lack of focus and time for each child; difficulty in addressing individual needs and development; and the cookie-cutter teaching solutions that are failing on so many levels.

Gonzalez (2020) also stated that to ensure the continuity of learning amidst the COVID-19 pandemic through Modular Distance Learning (MDL). Learners use Self-Learning Modules (SLM) based on the MELCS provided by the DepEd. In the Philippines, MDL is the most popular type of Distance learning. This learning modality is currently used by all public schools because, according to a survey conducted by the Department of Education, 8.8 million parents preferred MDL. The DepEd is in the process of adapting to the new normal form of education through the MDL at present. The continuous innovations of educators and the active involvement of other stakeholders are the driving forces for its success.

Gender

Gender differences in educational careers seem to emerge when factors other than cognitive learner characteristics are involved. Sommers (2001) mentioned that females pay more attention in class, collaborate with others, organize and keep track of their homework, and seek help from others. Males, on the other hand, often have discipline problems and are more likely to attend special teaching. Evers, et al. (2006) concluded that the education system rewards characteristics more typically found in girls, such as obedience, concentration, and self-control.

Jorgensen et al. (2009) stated that males have a lower score regarding their academic discipline, communication skills, and motivation. In their review study, Woodfield et al. (2006) mentioned that the most frequent explanation for gender differences is differences in learner identity: women work harder and more consistently. According to Nistor (2013), adopted by the study of Yu (2021), no significant differences were revealed in the learning outcomes of males and females according to gender because males were more stable in attitudes, while females performed well in engagement. He also stated that no significant gender differences in learning outcomes were found based on learning styles.

On the other hand, Truman and Hartley (1996) concluded by explaining gender differences in academic performance that women perform better in time management skills. Grebennikov and Skaines (2009) argue, based on their literature review, that women find academic goals more important than men and place a more excellent value on higher education, mainly because women need to prepare themselves better to have the same chances in the job market as men. The OECD report (2008) also shows that girls seem to have higher aspirations than boys.

According to OECD (2008), women appear to be more advanced in preparing and learning for higher education. Women aged 16 have broadened perspectives and can easily catch up in mathematics and the gap in English subjects. The OECD (2009) stated that the PISA studies show that girls (aged 15) outperform boys in reading. Furthermore, Evers, et al. (2006) explained that most studies seek to explain the gender differences in higher education through variations in cognitive

abilities and conclude that these differences are either nonexistent or highly modest.

Grade Levels

The level of a student's educational curriculum is referred to as their grade level. For staff, the grade level value refers to all course levels the teaching staff performs for an assignment and does not necessarily correspond to the student's grade levels. According to Cleary and Chen (2009), due to grade-level differences in goal structures and instructional practices, teachers may provide feedback to students in different grades differently. Urdan and Midgley (2003). For instance, for graduate students in secondary schools, teachers may emphasize performance-goal orientation and provide more grades or marks. By contrast, teachers focus on process-goal orientation for first-year students and provide more scaffolding or opportunities for dependent learning.

Goh and Gopinathan (2006) stated that among the numerous studies on teacher feedback and students' SRL, very few have investigated whether teachers' different types of feedback and their relationships with students' SRL vary across grade levels. In the context of secondary schools, where competition is increasingly keen, students may feel less friendly and have less fun at school than their younger counterparts. In addition, Yeung et al. (2011) suggested that students may re-evaluate their capabilities and change their self-perceptions as they age. These self-reflective processes may cause various teacher feedback responses as students progress through higher grades. Many teachers may need to teach students in different grade levels. However, they should know how to provide feedback differently in order for them to promote their teaching and learn more effectively.

According to the study by Byrne et al. (1986), wherein they measured the preferred classroom environment using a survey method among a sample of 1,675 students in Australia, they noted that Grade 11 students scored highest and Grade 9 lowest on preferred personalization and participation, thus adding further support to the unmet need students have for personalized or differentiated instructional content, especially as they progress further in school and ultimately into senior-high-school.

According to Reutzel et al. (2010), reading is one of the most significant language skills students need to master at school/home, and learners must perform in the Foundation Phase, especially in grades 1 – 3. It is a skill that permits students to understand the meaning of written and printed material and is a means of communication and language gaining, sharing ideas and information. Comprehension is a process that cannot be fully mastered.

According to Shubaylat (2010), those researchers were able to draw several problems and difficulties that reduce the comprehension process's efficiency from what is stated in the educational literature. The problems and difficulties are limited previous knowledge of the reader with the inability to integrate new knowledge into the previous one; lack of oral

language skills before entering school; focus on accurate reading performance at the expense of meaning; lack of listening comprehension skills; parents' carelessness to communicate with their children or follow them up at school; lack of exposing children in the early grades to printed materials; creating negative attitudes among students towards reading and materials; lack of dedicated time for independent reading; and the weakness of the students' self-confidence in their abilities to read.

III. METHODS

A. Research Design

A research design is a technique for obtaining answers to research questions that includes a plan, roadmap, and blueprint. It is the focus of each research study (Kothari, 2004). Research design is the plan and structure of an inquiry designed to answer research questions. This plan refers to the research's general design or program (Robson, 2002).

This quantitative study employed a descriptive survey design to determine and identify the perceived effects of the modular approach and the challenges the Grade 4, 5, and 6 students encountered in using modular distance learning in Aumbay Elementary School. Furthermore, Aquino defines descriptive research as a fact-gathering process with appropriate interpretation. He further claims that the descriptive technique is more than just data collection. He believes that the discussion of those statistics has progressed to the point where they can be interpreted appropriately.

B. Research Respondents

Research respondents are usually a sample of the population researchers intend to study in the research method. The researchers applied the stratified sampling, also known as stratified random sampling, in the distribution of respondents according to grade level. It is a sampling method that requires all samples to be grouped according to specific attributes before selecting samples from each group, rather than randomly selecting samples from the entire population (Madhuri, 2021). In the distribution of respondents according to gender, researchers used the voluntary response sampling. A voluntary response sampling is considered a type of non-probability sampling technique because respondents are voluntarily chosen to participate as a part of the sample groups.

Researchers chose the grades 4, 5 and 6 students of Aumbay Elementary School for the school year 2021-2022 as the respondents of this study to determine the Perceived Effects of Modular Distance Learning on the Students in this particular school. The sample size is an important feature of any empirical study that aims to make inferences about a population from a sample (Taherdoost, 2017). From the population size of 109, with a margin error of 5%, a confidence level of 95%, and 50% of the response distribution using the Raosoft online sampling calculator, researchers came up with a sample size of 86 respondents.

C. Research Instrument

A research instrument is essential to measure variables such as opinion, attitudes, concepts, and composition. Recommending or adopting questionnaires and interviews are helpful methods for conducting research studies (Takona, 2002). Researchers used a survey questionnaire to collect respondents' facts and opinions about the study. The survey questionnaire gathers information about students' perceived effects of modular distance learning. To acquire the necessary data for the study, the questionnaire of the study was adapted from the study of Aksan (2021).

The survey questionnaire is the primary instrument for collecting the data (Martin, 2018). The questionnaire was composed of questions that would determine the perceived effects of modular distance learning on Grade 4, 5, and 6 students in Aumbay Elementary School regarding gender and grade level. The questionnaire was divided into two main parts. The first part is the personal data or profile of the students. It contains characteristics of the respondents, such as gender and grade level. The second part of the Likert scale questionnaire is the perceived effect of modular distance learning as perceived by the students in Aumbay Elementary School. The questions were structured using the Likert Scale format, which was chosen as the questionnaire type so that respondents could easily respond to the survey.

The study used a five point Likert scale to guide in the interpretation of data. Where the scale of 1 has an interval of 1.00-1.49 with the verbal description of very low and interpretation of strongly disagree that modular distance learning is effective; in scale 2 has an interval of 1.50-2.49 with the verbal description of low and interpretation of disagree that modular distance learning is effective; scale no 3 has an interval of 2.50-3.49 with the verbal description of average and interpretation of uncertain that modular distance learning is effective; scale no 4 has an interval of 3.50-4.49 with the verbal description of high and interpretation of agree that modular distance learning is effective; and scale no 5 has an interval of 4.50-5.00 with the verbal description of very high and interpretation of strongly agree that modular distance learning is effective.

D. Research Procedure

A research procedure is a scientific procedure that follows a step-by-step process for carrying out a specific task linked to research and achieving the research goal.

The following are the procedures that were used to observe in gathering the data.

- 1) *Asking Permission to Conduct the Study*--The researchers secured permission letter from Mr. Alberto M. Condes, MAED, the director of UM Peñaplata College, to conduct a survey outside the campus and also to the school head in Aumbay Elementary School concerning the "Perceived Effects of Modular Distance Learning of the students in Aumbay Elementary School" for the school year 2021-2022.

- 2) *Adaptation of the Questionnaire*--The researchers adapted a questionnaire developed by Aksan (2021) to serve as a guide to determine the perceived effects of modular distance learning on the students in Aumbay Elementary School. Questionnaires are distributed and retrieved data through their school/advisers. Moreover, to follow the IATF safety protocols, during the gatherings of data, the researchers will follow the guidelines of social distancing and wear face masks and face shields to ensure the safety of each and everyone.
- 3) *Validation of the Questionnaire*--The researchers presented questionnaires to the panel members for validation and approval, and the experts will validate the questionnaire.
- 4) *Asking Permission from the Respondents as well as their Parents or Guardians*--The researchers will formally ask permission through a letter if they are willing to answer the survey questionnaire.
- 5) *Conducting a Survey*--Researchers used a Likert Scale survey questionnaire in order to gather the data. Researchers distributed the questionnaire with the help of teachers, especially the advisers of grades 4, 5, and grade 6, wherein teachers in Aumbay Elementary School voluntarily suggested that the survey questionnaire be distributed together with the modules of the students since the limited face-to-face was not implemented during the time of our survey.
- 6) *Retrieval of the Survey Questionnaires*--After conducting the survey. The teachers will gather the survey questionnaire, and then researchers will retrieve files from the teachers/advisers in Aumbay Elementary School.
- 7) *Tabulation, Analysis, and Interpretation of Data*--The data gathered was presented in tables, graphs, and figures with explanations. These data will be interpreted and analyzed using different applicable statistical tools.

E. Statistical Treatment

Statistical treatment refers to applying any statistical procedure to the data. It is applying a statistical approach to a data set to transform it from a collection of meaningless numbers to a meaningful output. The statistical tools that the researchers used in this study are the following:

- 1) *Mean*--This is the process of collecting and analyzing numerical data. It was used to get the average perception level regarding the perceived effect of modular distance learning.
- 2) *T-test*--This was used to compare the mean between two groups, and this tool will be used to determine the significant differences in the perceived effect of modular distance learning on the students in terms of gender.
- 3) *Analysis of Variance (ANOVA)*--This was used to compare the means between three or more groups, and

this will be used to determine the significant difference between the grade level of the perceived effect of modular distance learning on the students in Aumbay Elementary School.

IV. RESULTS AND DISCUSSION

1) *Perceived Effects of Modular Distance Learning Approach*

Table 1 presents the perceived effect of modular distance learning on grade 4, grade 5, and grade 6 students of Aumbay Elementary School. According to Dr. Padmapriya (2015), modules can help develop learners' self-learning capacity. He implied that modular learning is a self-learning style in which immediate reflection of the self is possible, which motivates the students to regulate and manage their learning styles. As shown in the table, the overall mean was 3.64, and the standard deviation was .85, which has a verbal description of high. This means that the students agreed that modular distance learning is effective.

Looking at the data for each indicator, it can be seen that the statement of modular distance learning can save money that would spend in transportation, snacks and other miscellaneous fees in school got the highest mean rating of 3.99 and a standard deviation of .95 with a verbal description of high, which means that the students agreed that modular distance learning is effective; followed by it saves time to answer activities with a mean rating of 3.80 and a standard deviation of .93 with a verbal description of high, which means that the students agreed that modular distance learning is effective; through modular distance learning, it has a big possibility that students can get a good grade with a mean rating of 3.79 and a standard deviation of 1.05 with a verbal description of high and interpreted as students agree that modular distance learning is effective; it can manage time in answering all the activities, reading lectures and so on with a mean rating of 3.77 and a standard deviation of 1.01 with a verbal description of high and interpreted as students agree that modular distance learning is effective; it helps to express their ideas with a mean rating of 3.71 and a standard deviation of 1.32 with a verbal description of high and interpreted as students agree that modular distance learning is effective; with this approach, they have much time with self-meditation and self-reflection with a mean rating of 3.64 and a standard deviation of 1.03 with a verbal description of high and interpreted as students agree that modular distance learning is effective; modular distance learning allows them to progress thinking ability in written examination with a mean rating of 3.63 and a standard deviation of .98 with a verbal description of high and interpreted as students agree that modular distance learning is effective; modular distance learning method is effective for learning with a mean rating of 3.60 and a standard deviation of 1.13 with a verbal description of high and interpreted as students agree that modular distance learning is effective; modular distance learning helps them to build their confidence with a mean rating of 3.59 and a standard deviation of 1.17 with a verbal description of high and interpreted as students agree that modular distance learning is

effective; it helps them to learn better with a mean rating of 3.59 and a standard deviation of 1.16 with a verbal description of high and interpreted as students agree that modular distance learning is effective; it helps them to understand the concept in any subjects better with a mean rating of 3.59 and a standard deviation of 1.13 with a verbal description of high and interpreted as students agree that modular distance learning is effective; distance learning helps them to read a lot about the topics in different source with a mean rating of 3.51 and a standard deviation of 1.04 with a verbal description of high and interpreted as students agree that modular distance learning is effective; they can answer modules and examination well without any pressure with a mean rating of 3.48 and a standard deviation of .99 with a verbal description of average and interpreted as students uncertain that modular distance learning is effective and modular distance learning improves students ability to learn in any subjects with a mean rating of 3.29 and a standard deviation of 1.07 with a verbal description of average and interpreted as students uncertain that modular distance learning is effective. Nardo (2017) mentioned that modules encourage independent study. Wherein he stated that one of the benefits of using modules for instruction is the acquisition of better self-study or learning skills that can help the students develop a sense of responsibility in accomplishing the tasks provided in the module, with little or no assistance from others, the learners progress on their own. Also, they are learning how to learn; they are empowered.

Based on the results mentioned below, the overall perceived effects of modular distance learning are High. This means that the students Agree that modular distance learning is effective. This was the response of the respondents as given their answers in the questionnaires. Most agreed with all statements about the perceived effects of modular distance learning. On the other hand, the students are uncertain that modular distance learning is effective in the statements; they can answer their modules and examinations well without any pressure, with a mean rating of 3.48 or average; and modular distance learning improves their ability to learn in any subject, as implied with a lowest weighted mean of 3.29 or average. Students can discover new things; they experience knowledge independently and participate in real experiences. Students learn to reflect on their own experiences (Betlen, 2021).

Concerning the results, it may be concluded that learning at home or modular distance learning is effective for students. According to Ambayon (2020), modular instruction is more effective in the teaching-learning method when compared to traditional teaching techniques because students learn at their own pace with this modular approach. Modular distance learning teaches the learners' values as well as the lessons. They learn how to manage their time even if they are at home. They must strictly follow their schedule in answering the LAS or the learner's answer sheets based on their SLM or the self-learning modules (Anzaldo, 2021).

Table 1. Perceived Effects of Modular Distance Learning Approach

Statements	SD	Mean	Descriptive Equivalent
1. It helps me to express my ideas.	1.32	3.71	High
2. Through modular distance learning, I can save money that I would spend on my transportation, snacks, and other miscellaneous fees in school.	.95	3.99	High
3. Distance Learning helps me to read a lot about the topics from a different source.	1.04	3.51	High
4. Modular distance learning allows me to progress my thinking ability in the written examination.	.98	3.63	High
5. I can manage my time in answering all the activities, reading lectures, and so on.	1.01	3.77	High
6. It saves time to answer my activities.	.93	3.80	High
7. With this approach, I have much time with self-meditation and self-reflection.	1.03	3.64	High
8. Modular distance learning helps me to build my confidence.	1.17	3.59	High
9. Through modular distance learning, it has a big possibility that I can get a good grade.	1.05	3.79	High
10. I can answer my modules and examination well without any pressure.	.99	3.48	Average
11. Modular distance learning improves my ability to learn in any subject.	1.07	3.29	Average
12. It helps me to learn better.	1.16	3.59	High
13. It helps me to understand the concept in any subjects better.	1.13	3.59	High
14. The modular distance learning method is effective for my learning.	1.13	3.60	High
Overall	.85	3.64	High

2) Perceived Effects of Modular Distance Learning on the students According to Gender and Grade level

Gender

Table 2 shows the significant difference in the perceived effects of modular distance learning on the students when categorized according to gender. The overall result got a t-value of -1.178, with a p-value greater than 0.05, the significance level; thus, the hypothesis of no significant difference was accepted.

Looking at the data for each indicator, it can be seen that the statements: modular distance learning students can save money that would spend on transportation, snacks, and other miscellaneous fees in school with a t-value of -2.201; it improves students' ability to learn with a t-value of -2.15; it helps them to learn better with a t-value of -2.181; and has a p-value less than 0.05 level of significance, and the hypotheses of significant difference were rejected. This implies a significant difference in the perceived effects of modular distance learning on the students when they are grouped according to gender.

On the other hand, there is no significant difference in the perceived effects of modular distance learning to the students when they are grouped according to their gender in these statements: Distance Learning help students to read a lot about

the topics in different source with a t-value of -1.029; allows to progress students thinking ability in written examination with a t-value of .000; can manage students time in answering all the activities, reading lectures and so on with a t-value of -1.065; it saves time to answer activities with a t-value of -.117; students have much time with self-meditation and self-reflection with a t-value of -.732; help them to build confidence with a t-value of -1.012; modular distance learning, has a big possibility that students can get a good grade with a t-value of -.204; they can answer modules and examination well without any pressure with a t-value of -.760; help them to understand the concept in any subjects better with a t-value of -.857; it is effective for students learning with a t-value of -.190 and it helps them to express ideas with a t-value of -.570, thus statements mentioned has a p-value greater than 0.05 level of significance, and the hypotheses of no significant difference was accepted. This implied that students had the same perceptions when categorized according to gender. According to Nistor (2013), adopted by the study of Yu (2021), no significant differences were revealed in the learning outcomes of males and females according to gender because males were more stable in attitudes, while females performed well in engagement. He also stated that no significant gender differences in learning outcomes were found based on learning styles.

Table 2. Significant Difference in the Perceived Effects of Modular Distance Learning on the Students when Categorized according to Gender

Statements	Male		Female		t(84)	P	Decision on Ho
	M	SD	M	SD			
1. It helps me to express my ideas.	3.63	1.33	3.79	1.32	-.570	.570	Accept

2.	Through modular distance learning, I can save money that I would spend on my transportation, snacks, and other miscellaneous fees in school.	3.77	1.07	4.21	.77	-2.201	.030	Reject
3.	Distance Learning helps me to read a lot about the topics in different sources.	3.40	1.05	3.63	1.05	-1.029	.307	Accept
4.	Modular distance learning allows me to progress my thinking ability in the written examination.	3.63	1.02	3.63	.95	.000	1.000	Accept
5.	I can manage my time in answering all the activities, reading lectures, and so on.	3.65	.90	3.88	1.12	-1.065	.290	Accept
6.	It saves time to answer my activities.	3.79	.94	3.81	.91	-.117	.907	Accept
7.	With this approach, I have much time with self-meditation and self-reflection.	3.56	1.14	3.72	.91	-.732	.466	Accept
8.	Modular distance learning helps me to build my confidence.	3.47	1.16	3.72	1.18	-1.012	.314	Accept
9.	Through modular distance learning, it has a big possibility that I can get a good grade.	3.77	1.07	3.81	1.05	-.204	.839	Accept
10.	I can answer my modules and examination well without any pressure.	3.40	.95	3.56	1.03	-.760	.449	Accept
11.	Modular distance learning improves my ability to learn in any subject.	3.05	1.05	3.53	1.05	-2.157	.034	Reject
12.	It helps me to learn better.	3.33	1.15	3.86	1.13	-2.181	.032	Reject
13.	It helps me to understand the concept in any subjects better.	3.49	1.22	3.70	1.04	-.857	.394	Accept
14.	The modular distance learning method is effective for my learning.	3.58	1.18	3.63	1.09	-.190	.850	Accept
	Overall	3.53	.89	3.75	.79	-1.178	.242	Accept

Grade Level

Table 3 presents the ANOVA test to determine the significant difference in the perceived effects of modular distance learning on the students when categorized according to grade level. The P-value of nine (9) statements cited below were less than .05 level of significance along these statements; it helps to express ideas with an F-value of 14.963; can manage time in answering all the activities, reading lectures, and so on with the F-value of 4.486; helps to build students confidence with the F-value of 16.710; it has a big possibility that they can get a good grade with the F-value of 10.330; they can answer modules and examinations well without any pressure with the F-value of 5.096; improves the ability to learn in any subject with the F-value of 3.149; it helps them to learn better with the F-value of 8.728; it helps to understand the concept in any subjects better with the F-value of 14.453 and modular distance learning method is effective for students learning with the F-value of 11.027. This suggests that the hypotheses were rejected. It indicated a significant difference in the perceived effects of modular distance learning on the students when categorized according to grade level. According to the study of Byrne et al. (1986), wherein they measured the preferred classroom environment using a survey method, they found that higher-grade levels got the highest scores and lower grades got the lowest scores on a preferred personalized or differentiated

instructional content, especially as they progress further in school.

On the other hand, there is no significant difference in the perceived effects of modular distance learning on the students when they are grouped according to their grade level along these statements: modular distance learning students can save money that they would spend on transportation, snacks and other miscellaneous fees in school with the F-value of 1.315; distance learning helps them to read a lot about the topics in different source with the F-value of 2.736; modular distance learning allows them to progress thinking ability in written with the F-value of 2.871; it saves time to answer activities with the F-value of 2.239, and students have much time for self-meditation and self-reflection with F-value of 2.884, and it has a P-value greater than .05 level of significance. Thus the hypotheses of no significant difference were accepted. This implied that the respondents had the same insights in these statements about their grade level.

The overall result of table 4.2 got an F-value of 10.626, with a p-value less than 0.05 level of significance; thus, the hypothesis of no significant difference was rejected. This means there is a significant difference in the perceived effects of modular distance learning on the students when categorized according to grade level.

Table 3. Significant Difference in the Perceived Effect of Modular Distance Learning on the Students when Categorized according to Grade Level.

Statements	Grade 4		Grade 5		Grade 6		F (2, 83)	P	Decision on Ho
	M	SD	M	SD	M	SD			
1. It helps me to express my ideas.	2.88	1.51	4.38	.77	4.14	.85	14.963	.000	Reject

2.	Through modular distance learning, I can save money that would spend on my transportation, snacks, and other miscellaneous fees in school.	3.79	1.23	4.04	.55	4.18	.82	1.315	.274	Accept
3.	Distance Learning helps me to read a lot about the topics in different sources.	3.24	1.30	3.88	.74	3.54	.84	2.736	.071	Accept
4.	Modular distance learning allows me to progress my thinking ability in the written examination.	3.32	1.12	3.88	.54	3.79	1.03	2.871	.062	Accept
5.	I can manage my time in answering all the activities, reading lectures, and so on.	3.38	1.10	4.08	.83	3.96	.92	4.486	.014	Reject
6.	It saves time to answer my activities.	3.56	.93	3.88	.80	4.04	.96	2.239	.113	Accept
7.	With this approach, I have much time with self-meditation and self-reflection.	3.32	1.12	3.92	.93	3.79	.92	2.884	.062	Accept
8.	Modular distance learning helps me to build my confidence.	2.82	1.24	4.17	.70	4.04	.88	16.710	.000	Reject
9.	Through modular distance learning, it has a big possibility that I can get a good grade.	3.24	1.10	4.33	.82	4.00	.86	10.330	.000	Reject
10.	I can answer my modules and examination well without any pressure.	3.12	1.07	3.92	.65	3.54	1.00	5.096	.008	Reject
11.	Modular distance learning improves my ability to learn in any subject.	2.94	1.25	3.54	.59	3.50	1.07	3.149	.048	Reject
12.	It helps me to learn better.	3.00	1.30	4.04	.81	3.93	.94	8.728	.000	Reject
13.	It helps me to understand the concept in any subjects better.	2.91	1.19	4.25	.85	3.86	.80	14.453	.000	Reject
14.	The modular distance learning method is effective for my learning.	2.97	1.29	4.08	.65	3.96	.88	11.027	.000	Reject
	Overall	3.18	.94	4.03	.21	3.88	.83	10.626	.000	Reject

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

modular distance learning approach when categorized according to grade level.

A. Summary of Findings

- 1) The students agreed on using a modular distance learning approach to deliver a lesson. Wherein it showed that the overall result got a mean rating of 3.64 and a standard deviation of .85, with a verbal description of High.
- 2) There is no significant difference in the perceived effects of modular distance learning on the students when they are categorized according to gender. The overall result got a t-value of -1.178, with a p-value of .242 greater than the 0.05 level; thus, the hypothesis of no significant difference was accepted. Moreover, there is a significant difference in the perceived effects of modular distance learning on the students when categorized according to grade level. The overall result got an F-value of 10.626 and a p-value of .000, which was lesser than the 0.05 level, so the hypothesis of no significant difference was rejected.

B. Conclusions

In light of the results drawn in statistical analysis and the research findings, the following conclusions can be drawn.

- 1) The level of perceived effects of modular distance is high. This means that the students agreed that modular distance learning is effective.
- 2) Males and females have the same insight about the perceived effects of modular distance learning when categorized according to gender. At the same time, students had different perceptions regarding the

C. Recommendations

Based on the results of this study, the researcher recommended the following:

- 1) The modular distance learning approach must be continuing in face-to-face. Since the study proved that there is a significant difference in perceived effects of modular distance learning when categorized according to grade level. This is highly recommended to the faculty/teachers in Aumbay Elementary School to use modules as instruction so that students can study in advance.
- 2) Schools may provide guidelines regarding the implementation of limited face-to-face and modular distance learning so that students can learn with a different approach.
- 3) Parents (or any family members) should give attention to their children at home while answering the activities, projects, or any work related to their child's schooling. Also, parents may support and help their child in such activities but not to the point that they will answer it (just guide or assist them).
- 4) For future researchers that will be going to conduct research related to this study, they may incorporate other variables not investigated in this study since this study proved and confirmed that the modular distance learning approach did not have a significant difference on the perceived effect of the students in Aumbay Elementary School when they were grouped according to their gender.

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