

Attitudes among Public School Teachers during The Implementation of Modular Distance Learning in Philippines

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ABSTRACT

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The COVID-19 pandemic has significantly reshaped the educational landscape, necessitating the implementation of Modular Distance Learning (MDL) in the Philippines. This study investigates the attitudes of public school teachers towards MDL, focusing on their readiness, schools' preparedness, and the effectiveness of modular instruction. Employing a descriptive quantitative research design, data were collected from 261 public school teachers in Zamboanga City using a survey questionnaire. Results indicate that teachers exhibit a high level of readiness to implement MDL, demonstrating adaptability and willingness to embrace new teaching strategies. Schools also displayed a high level of preparedness, with established communication channels and health protocols. However, challenges persist, particularly regarding the effectiveness of modular instruction, which teachers perceive to be less effective compared to face-to-face learning. Statistical analyses reveal no significant differences in teachers' attitudes based on demographic factors such as years of experience, educational background, or employment status. However, male teachers reported a higher perception of module effectiveness compared to their female counterparts. The findings underscore the need for continuous professional development and improved module design to enhance learning outcomes. This study contributes to understanding the realities of MDL implementation and provides a basis for future research on improving distance learning strategies.

Keywords

Distance Learning
Effectiveness
Preparedness
Readiness
Teachers' Attitudes

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**Introduction**

The Corona Virus disease (COVID-19) is a global occurrence that led to the threshold of the so-called "new normal" and caused enormous changes in the landscape of education. In the Philippines, the problem has been addressed with the use of Distance Learning (DL) as an innovative approach in providing quality education to learners through DepEd Order No. 012, s. 2020. Castroverde & Acala [1] underlined that when it comes to modular remote learning, teachers face a variety of challenges. One of them is to take part in many exposures and training to provide good education in the face of the challenges, as it may be needed to coach educators not only for the advancement of knowledge but also to be ready for unpredictable events [2]-[4].

Moreover, Macaraeg et al. [5] said that there is an increased burden, health issues, and increased expenses, forcing teachers to appeal for donations of bond paper and ink to print because of modular distance learning. Teachers manage to adapt to the new normal and perform their jobs despite problems that may impair their work [6],[7]. Modular instruction is more successful than traditional instruction in the teaching-learning process [8]. It is an unconstrained self-learning strategy in which feedback is provided to practice activity, which inspires the learners and enhances their curiosity [9][10]. As a result, this type of learning mode encourages a student-centered approach. However, as Dangle and Sumaoang [11] reported, the school faces several challenges in this learning modality, including the lack of funds. The use of modular learning caused several issues for parents, instructors, and learners. In the module creation and delivery, children encounter self-study problems, as do parents' failure to cognitively train their children [12]. As a result, it is evident that there are difficulties encountered in modular instruction.

Furthermore, the application of modular instruction necessitates readiness on the part of every teacher and preparedness for all schools, as well as adherence to the Department of Education's standards that learning should never end, regardless of the challenges that the education sector may face in the future. Hence, determining the attitudes and coping mechanisms of school teachers towards the implementation of modular distance learning is significant because it will open everyone's mind to the reality and practices of the new normal

of education. The findings will raise awareness and they can be utilized as a baseline study for future related research.

This study attempted to determine the attitudes public school teachers towards the implementation of modular distance learning. Specifically, the study sought answers to the following research questions:

- What are the attitudes towards Modular Distance Learning (MDL) among the Public Schools teachers in terms of: Teacher's Readiness, School's Preparedness, Module's Effectiveness
- Is there a significant difference in the attitudes towards Modular Distance Learning (MDL) among the Public school Teachers in terms of Readiness, School's Preparedness and Module's Effectiveness when the variables is categorized according to: Area of Specialization, Track, No. of Years in Teaching School , Rank, Age, Employment Status, Highest Degree Obtained, Sex, Grade Level Taught

Material and Methods

A. Research Design

The study focused on the Teacher's Attitude in the Implementation of Modular Distance Learning in the Public Schools. Descriptive Quantitative Research Design was used with the aid of questionnaire-checklist. This method is deemed appropriate since it describes, analyzes, and interprets data. It also involves some comparison and contrast and attempts to discuss correlations between variables. Descriptive research is a purposeful process of data collection, analysis, classification, and tabulation about present situations, practices, trends, processes, and cause-effect correlations, as well as providing adequate and correct interpretations of such data using or without, or with relatively minimum statistical approaches.

B. Research Locale

The study was conducted in the Department of Education-Zamboanga City Division, specifically among the public schools. The study focused on school teachers from grades 11 to 12. There are 491 School Teachers in the division of Zamboanga City. A school coordinator leads public schools, which are overseen by a school administrator. The schools are an appropriate setting for research because they are public high schools with a significant population of teachers among the city's secondary schools. It is also one of Zamboanga City's fastest expanding government schools.

C. Population and Sampling Procedure

For the selection of the respondents, the researcher chose the school teachers from Grades 11 to 12. A cluster design was employed in this study where 50% of the total schools served as

a sample. Thus, 20 out of 39 schools were selected using a simple random sampling design, and 261 school teachers were considered respondents in this study.

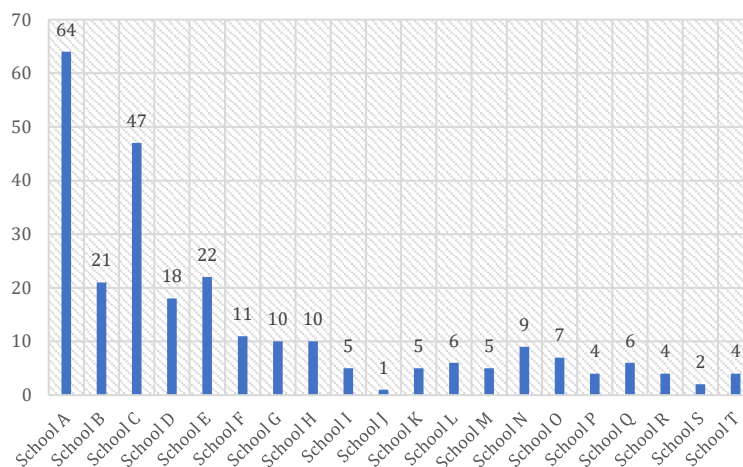


Fig. 1. Number of Respondents Per School

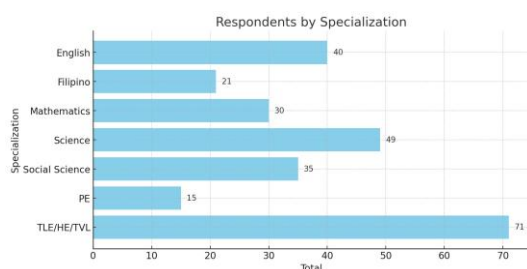


Fig. 2. Respondents' Profile according to Area of Specialization

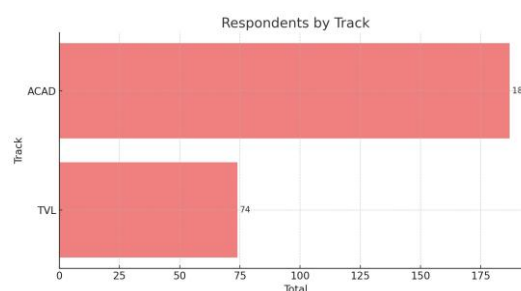


Fig. 3. Respondents' Profile according to Track

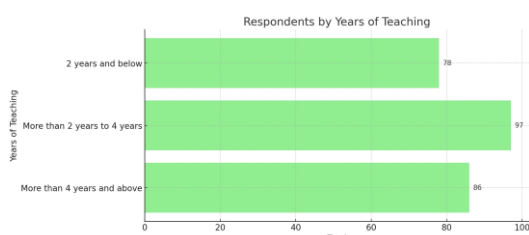


Fig. 4. Respondents' Profile according to No. of Years in Teaching School

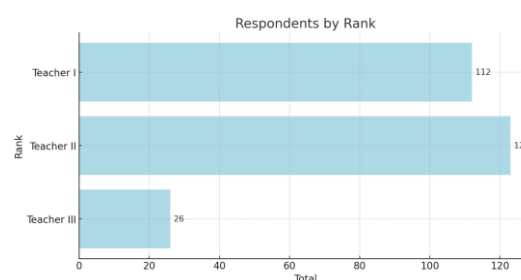


Fig. 5. Respondents' Profile according to Rank

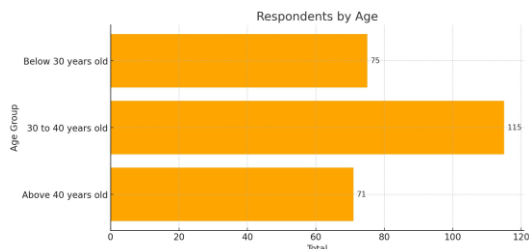


Fig. 6. Respondents' Profile according to Age

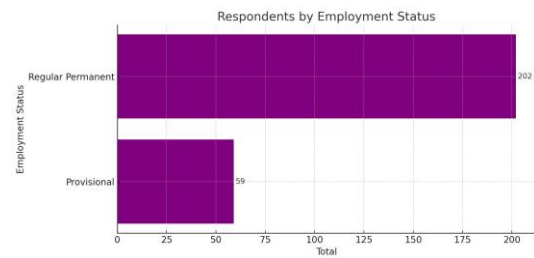


Fig. 7. Respondents' Profile according to Employment Status

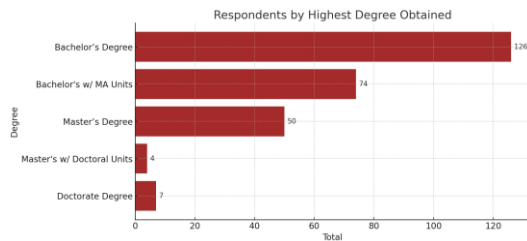


Fig. 8. Respondents' Profile according to Highest Degree Obtained

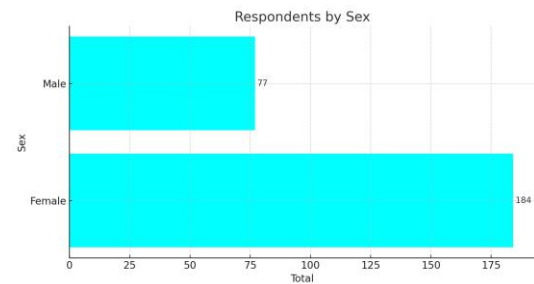


Fig. 9. Respondents' Profile according to Sex

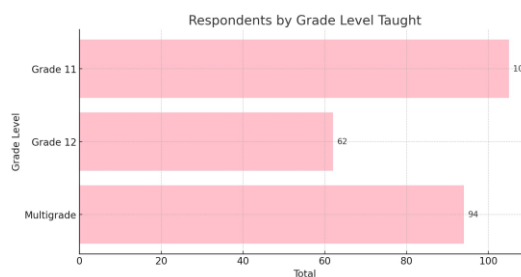


Fig. 10. Respondents' Profile according to Grade Level Taught

D. Research Instrument

The research instrument used in this study was very important to uncover and obtain the respondents' experiences, as well as to obtain the attitudes and coping mechanisms of school teachers towards modular distance learning. A 55-item survey questionnaire-checklist was employed as the research instrument in this study. The instrument developed was tailored to the level of the respondents.

The first part of the questionnaire-checklist included the demographic profile of the respondents such as area of specialization, track, no. of years in teaching school, rank, age, employment status, highest degree obtained, sex and grade level taught. A presently developed tool was utilized to determine the attitudes of school teachers towards modular distance learning. On the other hand, to determine the coping mechanisms employed by the teachers, the subscales of the Brief-COPE Scale [13] were adapted.

The instruments had two parts: Part one consisted of the respondent's personal data, and Part Two was the survey questions. The research instrument employed a five point Likert Rating System with descriptive ratings of 5-Strong Agree (SA), 4-Agree (A), 3-Undecided/Neutral (U/N), 2-Disagree (D), and 1-Strongly Disagree (SA). It likewise used a scale such as 5= (Very High); 4=High (H); 3=Fair (F); 2=Low (L); and 1=Very Low (VL).

Table 1. Numerical and Descriptive Ratings for the Teachers' Attitude

Descriptive Ratings	Range of Mean Scores
Very High (VH)	(5) 4.50 - 5.00
High (H)	(4) 3.50 - 4.49
Fair (F)	(3) 2.50 - 3.49
Low (L)	(2) 1.50 - 2.49
Very Low (VL)	(1) 1.00 - 1.49

The survey questionnaire consisted of 55-items that the teachers reviewed and scored on the scale of one to five such as teachers' readiness, schools' preparedness, modules' effectiveness, approach strategies, avoidant strategies, and nor approach nor avoidant strategies. Moreover, depending on the respondents' grasp of the statements in the instrument, the time it took to complete the survey questionnaire ranged from 15 to 30 minutes.

E. Validity and Reliability

Two school principals, one master teacher, one associate professor, and one retired college dean were requested to validate the instrument used in this study. Their professional opinions constituted the basis for the enhancement and amendment of the items in the instrument to make it appropriate for the study. The instrument was pilot tested on school teachers at Talisayan School and Vitali National High School. The result was subjected to a reliability test using statistical software. It was found out that all items yielded reliability alpha .938 which is considered as excellent reliability value (Table 2). Hence, all items were retained (Table 3).

Table 2. Reliability Statistics Cronbach's Alpha

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	Descriptive Interpretation
.938	.949	55	Very High Reliability

Table 3. Cronbach Alpha Reliability Coefficients for Interpretation

Alpha	Values Interpretation
.90 and above	Very High Reliability
.70 to < .90	High Reliability
.50 to < .70	Moderate Reliability
.30 to < .50	Low Reliability
< .30	Little if any reliability

F. Data Gathering Procedure

1. Preliminary Preparation Stage

For the study to be carried out, the researcher has personally secured written permission from the Zamboanga City Schools' Division Superintendent and school principal of schools. A research endorsement from the office of the Superintendent was granted to the researcher. This formal authorization was critical to the data collection procedure. At the same time, the said authorizations were very necessary for the researcher in order to have the accessibility in the public schools in Zamboanga City.

2. Gathering Information Stage

Prior to the conduct of the research study, the researcher has first acquired the necessary information's from Zamboanga City's public schools. Obtaining the total number of school teachers, as well as the number of copies of questionnaires to prepare for the respondents, were important concepts that will aid the researcher in planning and preparation. Since the primary goal of this study is to evaluate school teachers' attitudes concerning the deployment of modular distance learning, the necessary data can only be obtained by dealing with the responders in the context of their school. Furthermore, a survey questionnaire-checklist was used in this study to obtain a comprehensive picture of the respondent's experiences.

G. Data Analysis Procedure

After the researcher had administered the test, the collected data was tabulated, analyzed, and subjected to statistical tests. Table 4 shows the results.

Table 4. Scale of Measurement for the Attitudes School Teachers

Range	Interpretation
4.50 - 5.00	Strongly Agree
3.50 - 4.49	Agree
2.50 - 3.49	Neutral
1.50 - 2.49	Disagree
1.00 - 1.49	Strongly Disagree

To examine and comprehend the data, quantitative data processing and evaluation were applied. See Table 5 for the description.

Table 5. The relationship between problem and statisttic tool

Problem	Hypothesis	Statistical Tools
1. What are the attitudes towards Modular Distance Learning (MDL) among the Public Schools teachers in terms of: Teacher's Readiness, School's Preparedness, and Module's Effectiveness	None	Weighted Mean
2. Is there a significant difference in the attitudes towards Modular Distance Learning (MDL) among the Public school Teachers in terms of Readiness, School's Preparedness and Module's Effectiveness when the variables is categorized according to: 1.1 Area of	There is a significant difference in the attitudes towards Modular Distance Learning (MDL) among the Public school Teachers in terms of Readiness, School's Preparedness and Module's Effectiveness when that variable is	T-Test and ANOVA

Problem	Hypothesis	Statistical Tools
Specialization; 1.2 Strand; 1.3 No. of Years in Teaching School; 1.4 Rank; 1.5 Age; 1.6 Employment Status; 1.7 Highest Degree Obtained; 1.8 Sex; and 1.9 Grade Level Taught	categorized according to area of specialization; strand; no. of years in teaching school ; rank; age; employment status; highest degree obtained; sex and grade level taught.	

Results and Discussion

A. Research Problem 1: What are the attitudes in terms of: Teacher's Readiness, School's Preparedness, Module's Effectiveness.

The developed tool had 35 items on the scale, eleven items for teachers' readiness and schools' preparedness and thirteen items for modules' effectiveness. Table 6 presents the school teachers' readiness in the implementation of modular distance learning in the division of Zamboanga City.

Table 6. Respondents' Readiness towards Modular Distance Learning

Statement	WM	RANK	Interpretation
1 I am ready to conduct modular distance learning for my students.	4.31	5	High
2 I am ready to take the responsibility of monitoring the progress of learners.	4.40	4	High
3 I am ready to employ internet-based modules or learning materials, such as Youtube, Ted Talks, and the like.	4.00	9	High
4 I am ready to utilize Edmodo, Canvas, Google Classroom, or Zoom as learning management systems that can be used for distance learning.	4.02	7	High
5 I am well-equipped and ready for modular distance learning since I attended a training or workshop.	3.95	10	Fair
6 I am ready to conduct home visitation to students at risk of failing in this time of pandemic.	4.01	8	High
7 I am ready to take calls, respond to messages, or email from the students and parents who seek my assistance.	4.47	3	High
8 I am ready to explore and learn new things associated with modular distance learning.	4.50	1	Very High
9 I am ready to adapt to the changes brought by the new normal education.	4.48	2	High
10 I am ready to deliver quality education in the face of this pandemic.	4.40	4	High
11 I am ready to create instructional activities that allow students to interact with one another (e.g., discussion forums, wikis).	4.24	6	High
Grand Mean	4.25		High

Legend: 5=4.50-5.00 Very High (VH); 4=3.50-4.49 High (H); 3=2.50-3.49 Fair (F); 2=1.50-2.49 Low (L) and 1=1.00-1.49 Very Low (VL).

Indicator 8 (*I am ready to explore and learn new things associated with modular distance learning*) obtained the highest weighted mean of 4.50 with **very high** descriptive interpretation, while indicator 5 (*I am well-equipped and ready for modular distance learning since I attended a training or workshop*) got the lowest weighted mean of 3.95 with **fair** interpretation. The data imply that school teachers welcome new learnings and opportunities associated to modular distance learning. Teachers are ready and willing to discover and gain new insights so that they will be able to give the needed knowledge and skills for their learners.

Furthermore, teachers believed that their expertise towards modular distance learning is not enough since they have limited trainings and seminars with regards to this learning modality.

The data show that the grand mean category for teachers' readiness is 4.25 (high). This implies that the school teachers' readiness towards the implementation of modular distance learning is **high**. Despite the pandemic which led to the new normal education, teachers are ready to implement modular distance learning to students.

This supports the study made by Carreon [14] where the result of the study showed that select English teachers have expressed their readiness in terms of their understanding and usage of Modular Distance Learning. However, educators still have a huge need trainings and webinars to make their lessons more engaging and relevant. It can be inferred in the study that despite having limited time to prepare before the schools started and making necessary curriculum revisions, the teachers were able to cope and prepare themselves, as well as the learning materials that needed to be provided to the students [15]-[17]. See Table 7 for respondents' attitudes on schools' preparedness.

Table 7. Respondents' Attitudes on Schools' Preparedness

Statement	WM	Rank	Interpretation
1 The school has strengthened the use of different communication channels to connect with parents and students during the COVID-19 outbreak.	4.25	5	High
2 The school has provided capacity-building on modular distance learning for teachers.	4.22	7	High
3 The school has a stable internet connection.	3.68	11	High
4 The school provides adequate financial assistance for the production of modules and other related expenses.	3.69	10	High
5 The school has developed a strong partnership with stakeholders.	4.16	9	High
6 The school conducted an orientation to students, parents, and other stakeholders on modular distance learning.	4.38	2	High
7 The school has developed proper COVID-19 accommodations, modifications, and assistance for teachers with healthcare needs.	4.18	8	High
8 The school conducts cleaning and disinfection on a regular basis.	4.28	4	High
9 The school has created guidelines for observing social distancing in the movement of people inside the school premises. (e.g., staggered arrival and drop-off times or places).	4.39	1	High
10 The school teaches employees about flexible work and leave policies that allow ill employees to stay at home without worrying about losing their jobs or facing other repercussions.	4.23	6	High
11 The school trained its staff on the proper health safety protocols in the distribution and retrieval of modules.	4.37	3	High
Grand Mean	4.16		High

Legend: 5=4.50-5.00 Very High (VH); 4=3.50-4.49 High (H); 3=2.50-3.49 Fair (F); 2=1.50-2.49 Low (L) and 1=1.00-1.49 Very Low (VL).

Table 7 shows the respondents' attitudes towards schools' preparedness in the implementation of modular distance learning. All the above eleven indicators under schools' preparedness were rated with **high** descriptive interpretation. Indicator 9 (*The school has created guidelines for observing social distancing in the movement of people inside the school premises e.g., staggered arrival and drop-off times or places*) obtained the highest weighted

mean of 4.39 followed by indicator 6 with 4.38, and then 11 indicators with 4.37. The fourth rank can be found in indicator 8 with 4.18 followed by indicator 1 with a weighted mean of 4.25. Indicator 10 got the sixth rank with a weighted mean of 4.23 while indicator 2 with a weighted mean of 4.22 got the seventh rank. Indicator 7 got the eight ranks with a weighted mean of 4.18 while indicator 5 got the ninth rank with a weighted mean of 4.16. This is followed by indicator 4 with a weighted mean of 3.69. However, indicator 3 (*The school has a stable internet connection*) got the lowest weighted mean of 3.68.

The data further imply that the respondents see the preparedness of the school in the implementation of modular distance learning even amid the COVID-19 pandemic. It is consonance with the study that even though the educational system is experiencing a new normal, schools continue to find ways to provide quality education to students [18]. The schools inform all stakeholders about the new educational program so that they can participate and be guided by the school's processes in providing basic education services to students [19]. Furthermore, the schools offer a wide range of learning resources and materials that are all linked to the department's designated essential competences [20].

Table 8. Respondents' Attitudes on Module's Effectiveness

Statement	WM	Rank	Interpretation
1 are distributed and retrieved with an effective mechanism	4.22	1	High
2 enable parents/guardians to facilitate in the learning process	4.05	3	High
3 effective for school learner	3.86	8	High
4 as good as face-to-face instruction	3.21	12	Fair
5 appropriate for working students	4.11	2	High
6 terminologies chosen are appropriate for the student's understanding level	3.94	5	High
7 can be completed at a given pace	3.79	9	High
8 are simple and can be easily grasped by the students	3.75	10	High
9 enable to learn the topic in an easier way compared to face-to-face instruction	3.17	13	Fair
10 contains the expected learning competencies	4.01	4	Fair
11 are given at a speed that allows for reflection and review	3.77	11	High
12 has appropriate material presentation/discussion	3.90	6	High
13 provides ideas, thoughts, and points that are well-explained	3.88	7	High
Grand Mean	3.82		High

Legend: 5=4.50-5.00 Very High (VH); 4=3.50-4.49 High (H); 3=2.50-3.49 Fair (F); 2=1.50-2.49 Low (L) and 1=1.00-1.49 Very Low (VL).

Out of the eleven indicators for modules' effectiveness, 10 got high descriptive interpretations while three obtained fair interpretations. Indicator 1 obtained the highest mean of 4.22 while indicator 13 got the lowest mean of 3.17. It means that respondents believe there is a good framework in place for distributing module retrieval across schools.

A further look at Table 8 shows that modular instruction is good for students who are working, it enables them to study while earning at the same time. Moreover, the content of the module contains the learning competencies which is needed to will help achieve the goals of

the Department of Education. It can also be observed that having a grand mean of 3.82 with a **high** descriptive interpretation for modules' effectiveness is a manifestation that modular instruction can be used in times of pandemic for Filipino learners. This also implies that the school teachers have a positive attitude towards modules' effectiveness. However, when compared to face-to-face instruction, teachers believed that the topic in modular instruction does not allow students to understand the material more easily. This is similar to the results of the study, where the majority of students are struggling with this new mode of learning [10]. 90% of the participants struggled to complete their modules. Half of them don't have enough time in a week to finish all their modules. They often receive at least eight modules on all topics, with 3-5 exercises in each module.

Table 9. Summary of the School Teacher's Attitude towards Modular Distance Learning

Attitudes	WM	Rank	Interpretation
Teachers' Readiness	4.25	1	High
Schools' Preparedness	4.17	2	High
Modules' Effectiveness	3.82	3	High
Grand Mean	4.08		High

Legend: 5=4.50-5.00 Very High (VH); 4=3.50-4.49 High (H); 3=2.50-3.49 Fair (F); 2=1.50-2.49 Low (L); and 1=1.00-1.49 Very Low (VL).

Table 9 shows the summary of the public school teachers' attitudes towards modular distance learning in terms of teachers' readiness, schools' preparedness, and modules' effectiveness. It further shows that among the three categories under teachers' attitude, teachers' readiness got the highest rank (M=4.25) followed by schools' preparedness (M=4.17), and then modules' effectiveness (M=3.82). The data show that all categories obtained a high descriptive interpretation. Despite the fact that modules' effectiveness got a high descriptive interpretation, but it has the lowest weighted mean which implies that modular instruction is not as effective compared to face-to-face instruction.

The data also revealed that despite the limited time available for preparation for modular distance learning, teachers are ready to explore and put forth their best efforts to implement this learning modality since they are already exposed to the institutions' various challenges and should always be ready for change as the other research findings [21]-[23]. However, not only is the implementation of modular instruction challenging for teachers, but it is also difficult for students. Understanding the material of the modules and following the various tasks assigned to students is also a difficulty. Thus, face-to-face instruction can guide and teach students better than modular instruction.

B. Research Problem 2: Is there a significant difference in the attitudes in terms of Readiness, School's Preparedness and Module's Effectiveness

Table 10 presents the result of F-test of One-Way Analysis of Variance (ANOVA) on teachers' attitudes towards modular distance learning when data are grouped according to

area of specialization. As gleaned in Table 10, findings revealed that significant differences do exist in teachers' attitudes towards modular distance learning in terms of readiness ($F=2.48$) and schools' preparedness ($F=2.86$). However, significant difference does not exist in terms of modules' effectiveness ($F=2.00$).

Table 10. Significant Difference in the Attitudes according to Area of Specialization

Teachers' Attitude	Area of Specialization	N	WM	SD	F-Ratio	P-Value	Interpretation
Teachers' Readiness	English	40	4.25	.58	2.48	0.024	Significant
	Filipino	21	4.28	.34			
	Mathematics	30	4.24	.47			
	Science	49	4.04	.50			
	Social Science	35	4.43	.49			
	PE	15	4.32	.51			
	TLE/HE/TVL	71	4.34	.51			
Schools' Preparedness	English	40	4.13	.64	2.86	0.010	Significant
	Filipino	21	4.46	.42			
	Mathematics	30	4.26	.48			
	Science	49	3.94	.54			
	Social Science	35	4.12	.69			
	PE	15	4.28	.44			
	TLE/HE/TVL	71	4.24	.50			
Modules' Effectiveness	English	40	3.75	.55	2.00	0.066	Not Significant
	Filipino	21	3.86	.54			
	Mathematics	30	3.88	.58			
	Science	49	3.60	.57			
	Social Science	35	3.91	.63			
	PE	15	3.83	.64			
	TLE/HE/TVL	71	3.95	.61			
	English	40	3.75	.55			

Legend: $p\text{-value} < 0.05$ (significant)

The posited hypothesis in terms of teachers' readiness and schools' preparedness is **accepted** and it is **rejected** in terms of module's effectiveness when data were analyzed according to area of specialization. When compared to science teachers, social science teachers are more ready to modular remote learning. This means that these educators are prepared to provide quality instruction even in the face of a pandemic. Filipino teachers believe that schools are prepared to utilize distance learning, but science teachers think that the school still needs to adjust and take the necessary steps to be effective in this type of learning modality. Furthermore, TLE/HE/TVL teachers considered that modules were more effective in modular distance learning than science teachers. This means that, contrary to what science teachers believe, there is a need to improve the effectiveness of the modules.

The findings (Table 11) show that significant difference does not exist in the teachers' attitudes towards modular distance learning in terms of teachers' readiness ($t=.131$), schools' preparedness ($t=.696$) and modules' effectiveness ($t=.110$). The posited hypothesis is rejected since there are no significant differences in teachers' attitudes among the selected public school teachers in Zamboanga City Division when data are grouped according to track. It further shows that academic and technical-vocational track have similar responses in terms

of the various indicators under attitudes towards modular distance learning such as teachers' readiness, schools' preparedness, and modules' effectiveness.

Table 11. Significant Difference in the Attitudes according to Track

Teachers' Attitude	Track	N	WM	SD	T Value	P value	Descriptive Interpretation
Teachers' Readiness	ACAD	187	4.22	.51	.131	.718	Not Significant
	TVL	74	4.33	.51			
Schools' Preparedness	ACAD	187	4.15	.58	.696	.405	Not Significant
	TVL	74	4.22	.50			
Modules' Effectiveness	ACAD	187	3.78	.59	.110	.740	Not Significant
	TVL	74	3.92	.62			

Legend: $p\text{-value} < 0.05$ (significant)

Moreover, academic track responses obtained higher weighted mean in all indicators compared to their technical-vocational counterparts. It implies that track has no bearing on teachers' attitudes towards modular distance learning in terms of teachers' readiness, schools' preparedness, and modules' effectiveness.

Table 12 shows the significant difference in the attitudes of public school teachers towards modular distance learning according to number of years in teaching school .

Table 12. Significant Difference in the Attitudes according to Number of Years in Teaching

Teachers' Attitudes	Number of Years in Teaching SCHOOL	N	WM	SD	F-Ratio	P-Value	Interpretation
Teachers' Readiness	2 years and below	78	4.29	0.47	.848	.430	Not Significant
	3-4 years	97	4.28	0.47			
	More than 4 years	86	4.20	0.58			
Schools' Preparedness	2 years and below	78	4.23	0.46	1.126	.326	Not Significant
	3-4 years	97	4.18	0.52			
	More than 4 years	86	4.10	0.67			
Modules' Effectiveness	2 years and below	78	3.84	0.57	.632	.533	Not Significant
	3-4 years	97	3.86	0.57			
	More than 4 years	86	3.77	0.65			

Legend: $p\text{-value} < 0.05$ (significant)

It is revealed in the findings that significant differences do not exist in the teachers' attitudes towards modular distance learning. The posited hypothesis is rejected since there is no significant differences in the attitudes of the teacher respondents according to the number of years in teaching school . It implies that number of years in teaching school does not affect the attitude towards modular distance learning in any indicators under this area.

Moreover, in a study made by Alea et al. [24], teachers who have taught for several years have more experience dealing with challenging situations such as pandemics or natural tragedies, which influences their readiness for distance learning education. Teachers with more years of experience, on the other hand, are more likely to be in the older age group and hence less tech-savvy. This group of teachers requires additional assistance in delivering their lectures utilizing online technologies. Teachers who have been on the job for a long time, on

the other hand, have had the opportunity to attend seminar workshops on how to provide distance learning instruction [25]-[27].

Table 13 shows the significant difference in the attitudes towards modular distance learning according to rank.

Table 13. Significant Difference in the Attitudes according to Rank

Teachers' Attitudes	Rank	N	WM	SD	F-Ratio	P-Value	Interpretation
Teachers' Readiness	Teacher I	112	4.23	.50	.795	.453	Not Significant
	Teacher II	123	4.29	.50			
	Teacher III	26	4.17	.58			
Schools' Preparedness	Teacher I	112	4.13	.57	.391	.677	Not Significant
	Teacher II	123	4.18	.55			
	Teacher III	26	4.23	.59			
Modules' Effectiveness	Teacher I	112	3.81	.60	.673	.511	Not Significant
	Teacher II	123	3.85	.59			
	Teacher III	26	3.71	.61			

Legend: $p\text{-value} < 0.05$ (significant)

The data revealed that there are no significant differences in teachers' attitudes about modular distance learning, therefore, the proposed hypothesis is **rejected**. It means that in any of the measures in this domain, rank has no bearing on teachers' attitudes toward modular distance learning.

Table 14. Significant Difference in the Attitudes according to Age

Teachers' Attitudes	Age	N	WM	SD	F-Ratio	P-Value	Interpretation
Teachers' Readiness	Below 30 years old	75	4.25	.46	.108	.898	Not Significant
	30-40 years old	115	4.24	.55			
	Above 40 years old	71	4.28	.50			
Schools' Preparedness	Below 30 years old	75	4.19	.50	.117	.890	Not Significant
	30-40 years old	115	4.16	.54			
	Above 40 years old	71	4.16	.65			
Modules' Effectiveness	Below 30 years old	75	3.75	.54	2.133	.121	Not Significant
	30-40 years old	115	3.79	.65			
	Above 40 years old	71	3.94	.56			

Legend: $p\text{-value} < 0.05$ (significant)

Table 14 shows that there are no significant differences in teachers' attitudes about modular distance learning. The proposed hypothesis is rejected because there is no significant difference in teacher respondents' attitudes based on their age. Therefore, age has no impact on teachers' attitude towards modular distance learning in public schools in the Zamboanga City. It further shows that age is not a factor to be considered in terms of teachers' attitudes towards modular distance learning among public schools. Age could not affect any of the three (3) indicators under teachers' attitudes in modular instruction.

Table 15 shows the significant difference in the attitudes of public school teachers towards modular distance learning according to employment status. Table 15 show that significant difference **does not exists** in teachers' attitude towards modular distance learning in terms of teachers' readiness ($t=1.919$), schools' preparedness ($t=.792$), and modules' effectiveness

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($t=1.773$). The posited hypothesis is **rejected** since there are no significant difference between teachers' attitude in modular instruction among public schools in Zamboanga City according to employment status.

Table 15. Significant Difference in the Attitudes according to Employment Status

Teachers' Attitude	Employment Status	N	WM	SD	T-Value	P-value	Interpretation
Teachers' Readiness	Regular Permanent	202	4.22	.53	1.919	.056	Not Significant
	Provisional	59	4.37	.43			
Schools' Preparedness	Regular Permanent	202	4.15	.58	.792	.429	Not Significant
	Provisional	59	4.22	.50			
Modules' Effectiveness	Regular Permanent	202	3.78	.62	1.773	.077	Not Significant
	Provisional	59	3.94	.50			

Legend: $p\text{-value} < 0.05$ (significant)

The posited hypothesis is rejected since there are no significant differences in the attitudes of school teachers towards modular distance learning when data was analyzed according to highest degree obtained (Table 16). There is no significant difference for all the indicators under teachers' readiness, schools' preparedness, and modules' effectiveness. It means that highest degree obtained whether Bachelor's Degree, Bachelor's Degree with MA Units, Master's Degree, Master's Degree with Doctoral Units, or with Doctorate Degree do not affect school teachers' attitude towards modular distance learning.

Table 16. Significant Difference in the Attitudes according to Highest Degree Obtained

Teachers' Attitudes	Highest Degree Obtained	N	WM	SD	F-Ratio	P-Value	Interpretation
Teachers' Readiness	Bachelor's Degree	126	4.22	.50	1.577	.181	Not Significant
	Bachelor's Degree w/ MA units	74	4.36	.45			
	Master's Degree	50	4.19	.57			
	Master's Degree w/ Doctoral units	4	4.40	.68			
	Doctorate Degree	7	4.05	.59			
Schools' Preparedness	Bachelor's Degree	126	4.15	.54	1.221	.302	Not Significant
	Bachelor's Degree w/ MA units	74	4.28	.54			
	Master's Degree	50	4.06	.61			
	Master's Degree w/ Doctoral units	4	4.20	.50			
	Doctorate Degree	7	4.10	.68			
Modules' Effectiveness	Bachelor's Degree	126	3.78	.60	1.069	.372	Not Significant
	Bachelor's Degree w/ MA units	74	3.92	.59			
	Master's Degree	50	3.77	.60			
	Master's Degree w/ Doctoral units	4	3.53	.42			
	Doctorate Degree	7	4.00	.70			

Legend: $p\text{-value} < 0.05$ (significant)

The findings (Table 17) show that is no significant difference in the attitudes of school teachers in terms of teachers' readiness ($t=1.098$) and schools' preparedness ($t=1.625$),

however there is a significant difference in terms of modules' effectiveness ($t=2.119$) when data are grouped according to sex.

Table 17. Significant Difference in the Attitudes according to Sex

Teachers' Attitude	Sex	N	WM	SD	T-Value	P-value	Interpretation
Teachers' Readiness	Male	77	4.31	.50	1.098	.273	Not Significant
	Female	184	4.23	.51			
Schools' Preparedness	Male	77	4.25	.50	1.625	.105	Not Significant
	Female	184	4.13	.58			
Modules' Effectiveness	Male	77	3.94	.58	2.119	.035	Significant
	Female	184	3.77	.60			

Legend: $p\text{-value} < 0.05$ (significant)

The posited hypothesis is **rejected** in terms of teacher's readiness and schools' preparedness since there are no significant difference involved in the data between school teachers' attitude in the implementation of modular distance learning among public schools in Zamboanga City when data are grouped according to sex. It further shows that females and males have similar responses in terms of the various indicators under teachers' attitudes such as teachers' readiness, and schools' preparedness.

It implies that gender has no bearing on the attitudes of the respondents in terms of teachers' attitudes such as teachers' readiness and schools' preparedness, but it has bearing on the attitudes in terms of modules' effectiveness. Moreover, male respondents obtained higher weighted mean in terms of teachers' readiness and schools' preparedness compared to their female counterparts. This shows that male teachers are better in implementing modular distance learning as compared to female teachers.

This finding does not concur with the findings of Islahi [28], where teachers' gender has a significant impact on their attitude toward distance learning education. Because female teachers were the majority of respondents, it can be presumed that female teachers are more familiar with COVID-19 and its effects on their students' academic performance than male teachers. The gender of teachers has a considerable influence on their readiness for distance learning education [29]. They are likely to be more familiar with COVID-19 and its implications for their students' remote learning studies than male teachers. However, with regards to module's effectiveness the posited hypothesis exists [30]. This implies that the male teachers are more prepared in module preparation as compared to female teachers.

The data reveal that when data are categorized according to grade level taught, there is no significant difference in school teachers' attitudes in the implementation of modular distance learning across public schools in Zamboanga City, rejecting the hypothesis (Table 18). It also shows that respondents teaching in the different grade level have similar responses to the

many factors underpinning teacher attitudes, such as teachers' readiness, schools' preparedness, and modules' effectiveness.

Table 18. Significant Difference in the Attitudes according to Grade Level Taught

Teacher's Attitude	Grade Level Taught	N	WM	SD	F-Ratio	P- Value	Interpretation
Teacher's Readiness	Grade 11	105	4.24	.50	1.162	.315	Not Significant
	Grade 12	62	4.34	.46			Not Significant
	Multigrade	94	4.22	.55			Not Significant
School's Preparedness	Grade 11	105	4.19	.54	.724	.486	Not Significant
	Grade 12	62	4.21	.56			Not Significant
	Multigrade	94	4.11	.58			Not Significant
Module's Effectiveness	Grade 11	105	3.77	.60	2.879	.058	Not Significant
	Grade 12	62	3.98	.65			Not Significant
	Multigrade	94	3.77	.55			Not Significant

Legend: $p\text{-value} < 0.05$ (significant)

Conclusion

It can be rationally concluded that modular distance learning is a very good tool in the teaching-learning process of the teachers as they are ready to use it as found in the study, and even if the pandemic is over, modular distance learning may still be taken as one of the teaching modalities that can be adopted. It is safe to conclude that modular distance learning might still be employed even after pandemic because the theory utilized in this study states that transactional distance increases when an educational program has more structure and less student teacher discussion, as some traditional courses do. This notion is supported by the findings of this study. School teachers stressed the need to participate in a series of trainings and seminars aimed at improving teachers' relevant educational practices and aligning them with the significant change in learning modalities in basic education.

Conflict of Interest

The authors declare that there is no conflict of interest.

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