

Extent of Parent's Involvement and Levels of Attitude and Achievement of Students in Mathematics



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ABSTRACT: This study aimed to determine the extent of parents' involvement, level of student's attitude, and achievement in Mathematics in the new normal of Grade 9 students of Manapla National High School during the School Year 2021-2022. Utilizing correlational research design, which used the modified questionnaires administered to the 50 Grade 9 students. The study's findings show that the level of the extent of the parent's involvement is moderate, while the level of attitude of the students towards Mathematics is average. Meanwhile, the student's level of achievement in Mathematics is poor. There was a significant relationship between the extent of parents' involvement and the level of attitude of the students towards Mathematics. However, the parent's involvement and the student's level of achievement in Mathematics have no significant relationship. Similarly, there is no significant relationship between the student's attitude toward Mathematics and their level of achievement in Mathematics. In line with this, it was inferred that a related study should also be conducted in another group of students in the same school and other schools in other cities and municipalities to confirm or deny the findings of the recent study utilizing other variables not included in the present study.

KEYWORDS: Parent's involvement, Level of Attitude, and Achievement in Mathematics.

INTRODUCTION

The start of education in the new normal setting opens new responsibilities, possibilities, innovations, interventions, adjustments, and challenges not just to the students, the teachers, and most especially the parents as they are classified and regarded as one of the schools' stakeholders [15]. Before the academic year starts, the Department of Education makes a bold commitment to ensure a hundred percent effort in maintaining the educational system in our country as effectively as possible, even in the face of the Pandemic [14].

Students are not the only ones affected by this kind of educational system. The reason why the teacher is tasked to formulate plans is to ensure that the students are complying with their daily given tasks. Meanwhile, parents and guardians will play a significant role as their participation is encouraged in this type of learning method [2].

Furthermore, parents and guardians are involved in the intervention and support since most of the tasks assigned to them will require their attention and is a vital component of the student's satisfactory evaluation. Moreover, parents' involvement in this stage is essential and crucial for the student's learning pace [5]. In addition, parents are also evaluated in terms of the length of time or the equal amount of effort they exert to push their students to their limits to yield exceptional results, which of course, specifically are good grades.

With the rise of the pandemic, most traditional learning strategies are not any more suited to the requirements of the distance learning modality. Certain gaps have been encountered in Manapla National High School using the Modular Distance Learning Modality. Problems that arise are the quality of instructions becoming less significant since teachers have less direct instruction, especially during modular since the rendezvous with the parents is once a week only, where the retribution and distribution of modules would take place.

The records are centered on the academic year 2020-2021. The school's mean percentage score in Math is lower compared to the previous year. Parents and guardians are needed to inspire their children to keep going, which will eliminate boredom or lack of interest on the side of the learners.

Established on what we are today, facing new challenges and new changes, the researcher desires to determine the parents, guardians, and the people that will greatly contribute to the education process and how relevant their involvement of them in the progress of learners' achievement.

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STATEMENT OF PROBLEM

This study aims to determine the extent of parents' involvement towards the level of students' attitude and achievement in mathematics for S.Y. 2021-2022 in the new normal.

Specifically, the research sought to answer the following questions:

1. What is the extent of parents' involvement in the mentoring of students' performance in Mathematics?
2. What is the level of students' attitude towards Mathematics?
3. What is the level of students' achievement in Mathematics?
4. Is there a significant relationship between the extent of parents' involvement, the level of student's attitude, and achievement in Mathematics?

HYPOTHESES

There is no significant relationship between the extent of parents' involvement, the level of student's attitude, and achievement in Mathematics.

THEORETICAL FRAMEWORK

This study was anchored on three different theories, namely the Theory of Planned Behavior and Parental Involvement of Icek Ajzen, the Theory of Cognitive Dissonance by Leon Festinger, and the Theory of Educational Productivity by Herbert J. Walberg.

This study adopted Ajzen's theory of planned behavior and parental involvement. According to Icek Ajzen (1991), positive behavior and higher effort of the parents let produce a high possibility that the task will be conducted. Ajzen outlines individual behavioral intentions into three cores. Attitude involves one's behavior will affect how likely to perform that kind of behavior. For instance, when you believe that a parent's involvement has a positive effect on a student's performance, parents will likely get involved and help your learner, and if you think otherwise, you will not get involved in it. Subjective norms focus on everything that surrounds an individual may it be social media, cultural norms, group norms, and others. Perceived Behavioral Control expresses that people's decisions are influenced by their belief on how easy or hard it is to display a particular behavior or just act in a certain way.

Along with this, Ajzen's Theory of Planned Behavior and Parental Involvement helps the researcher understand better her student regarding the involvement of the parents of Manapla National High School. The researcher believes that the involvement of parents may influence the attitude of the students toward Mathematics and Mathematics achievement.

Also, this study was anchored on Festinger's theory of cognitive dissonance. According to Leon Festinger, cognitive dissonance is the cause of the discomfort of the mind believing in two opposing thoughts or values. The human mind likes simple things and consistency. Festinger pointed out that minimizing discomfort in mind can be a great motivator in making decisions. One example of cognitive dissonance is when people stay in situations or just go with the crowd, especially when the crowd is the cult, even if they are not in their best interest.

Lastly, the learner's academic achievement is anchored to the Theory of Educational Productivity of Herbert Walberg. Educational Productivity stresses the influences on learning that affect the academic achievement of the learners [13]. Moreover, the use of several methods to identify the factors that will certainly affect the academic achievement and performance of learners [10]. Eight (8) social-emotional influences were identified as learning influences. As such, parental support and behavioral attributes of the students were included as factors for which this study was frame-worked.

CONCEPTUAL FRAMEWORK

In this new normal education setting, teachers are challenged with a new set of strategies that need to be implemented in the class regardless of what modality the students are categorized. To be an effective teacher, one should know the factors that may affect the student's performance not just in school or in what we consider now as the face-to-face modality but also their performance at home (modular or online modality). Through this, the teachers may formulate appropriate strategies for certain types of students. This kind of aspect needs to be understood deeper to see the connection between the parent's involvement, the student's attitude, and the achievement of students in Mathematics. Teachers encountered difficulty in facilitating the learning of students at the pinnacle of the pandemic. Thus, this study was conducted to determine and describe the parent's involvement, the student's attitude, and the student's academic achievement at Manapla National High School.

The concept of this research mainly focuses on three major variables: parent involvement, student attitude, and student achievement. These three variables were correlated with each other to find if there is a significant relationship between and among them. Based on the observed and experienced scenario in the new normal setting of education, learners lack the enthusiasm to study [4]. The academic performance of the students was affected [12]. Since the teacher has less contact with the learners and most of their time is spent at home just shows that most of the people who can help in the learning process of the learners are the parents, guardians, and older siblings aside from self-learning. This encourages the researcher to conduct a study that involves the given variables.

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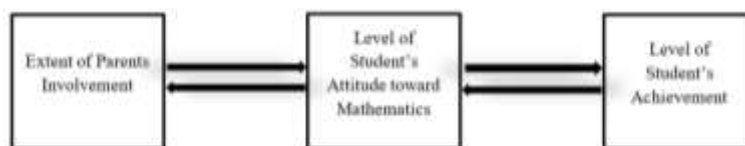


Figure 1. The schematic diagram of the theoretical framework of this research.

RESEARCH DESIGN

The study utilized the Correlational Research Design. This type of nonexperimental research is utilized to measure two variables that assess the statistical relationship (i.e., the correlation) between them with little or no effort to control extraneous variables [8].

RESEARCH INSTRUMENT

The instrument used in this research was a survey questionnaire formulated and constructed by the researchers. The first survey questionnaire is focused on the extent of parent involvement based on the six types of parent involvement [6], which is modified based on the new normal setting of education. The second part of the survey questionnaire is focused on the attitude of the students toward mathematics based on the Fennema Sherman Mathematics Attitude Scale and constructed using the Likert scale that indicates the degree of students’ attitude towards mathematics. The third part of the 20 – item survey test questionnaire which composed of questions on quadratic and polynomial functions that measures the mathematics achievement of the students.

The instrument’s validity received a 4.37 rating, which is of “high validity.” Meanwhile, utilizing Cronbach’s Alpha, they established an alpha value of 0.871 and 0.822 for the instrument’s parent’s involvement and mathematics attitude scale, respectively. As for the test survey questionnaire, the researchers utilized the Kuder-Richardson 20. The instrument established a KR value of 0.798. Thus, it shows the instrument to be reliable.

RESULTS & DISCUSSIONS

Table 1 presents a “Moderate Extent” of parental involvement in the mentoring of the students in Mathematics ($M = 3.48$, $SD = 0.860$) as perceived by the students. This implies that the parents sometimes remind the students of their learning tasks, help the students understand the lesson by explaining the concepts, and as well as give enrichment activities.

There are different views on assessing parental support. Parental involvement in the Philippines reveals a gap of miscommunication between the school and the parents on how they view the framework of parent involvement in students’ educational outcomes [1].

Table 1. The extent of Parents’ Involvement

Variable	M	SD	Interpretation
Parents’ Involvement	3.48	0.860	Moderate Extent

Note: Mean Scale; 1.00 – 1.49 Very low, 1.50 – 2.49 Low, 2.50 – 3.49 Moderate, 3.50 – 4.49 High and, 4.50 – 5.00 Very high

Table 2 shows that the level of student’s attitude ($M = 3.46$, $SD = 0.600$) is “Average Level.” This implies that students have an average attitude in solving, learning, and doing activities in Mathematics in their capability and have an average positive attitude towards

Mathematics by appreciating the importance of the subject in their lives. The parents could influence the students’ attitudes toward Math on how they motivate the student to do tasks accordingly, as parental encouragement plays a crucial role in the student’s success since they are “partners” of teachers in education [9].

Table 2. Level of Attitude of Students

Variable	M	SD	Interpretation
Attitude of Students	3.46	0.600	Average level

Note: Mean Scale; 1.00 – 1.49 Very low, 1.50 – 2.49 Low, 2.50 – 3.49 Average, 3.50 – 4.49 High and, 4.50 – 5.00 Very high

Table 3 presents that student has a “Poor Level” of achievement ($M = 6.46$, $SD = 2.392$). Thus, the result of this study has nothing to do with the academic performance of the students that was required by the Department of Education and may affect the said department in whatsoever ways it may be. It is perceived that students learn best when all the stakeholders, including teachers, parents, other family members, and the community, help each other and work together to encourage and support them [3].

This idea was taken and was proven true to benefit and helps the students that were greatly affected by the change in the system of education in this new normal. A study on parental involvement has been found to have implications in supporting the academic success of children [7]. The performance of the students got low, maybe of the fewer involvement factors on the part of the parents where they are letting their students study at home alone without their assistance.

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Table 3. *Level of achievement of students*

Variable	M	SD	Interpretation
Achievement of Students	6.46	2.392	Poor level

Note: Mean Scale; 1.00 – 3.99, Poor, 4.00 – 7.99 Fair, 8.00 – 11.99 Satisfactory, 12.00 – 15.99 Very satisfactory and, 16.00 – 20.00 Outstanding

Table 4 shows a significant relationship between parents' involvement and the attitude of students [$r(48) = 0.284$, $p = 0.046$] towards mathematics at a 0.05 level of significance. This implies that parents' involvement has a fair association with students' attitudes toward learning mathematics.

The results confirm a study that there was a significant relationship between parental involvement and students' academic performance amidst modular learning in the Philippines [17]. It is significant for parents to be responsible for guiding and facilitating learning, especially during the modular learning modality, to motivate their students to achieve high achievements.

Table 4. *Relationship between Parents' Involvement and Attitude of Students towards Math*

Variables	df	r	p
Parents Involvement	48	0.284*	0.046
Attitude of Students			

* $p < 0.05$

Table 5 shows no relationship between parents' involvement and student achievement [$r(48) = 0.150$, $p = 0.297$] at a 0.05 level of significance. This implies that students' achievement has no association with their parent's involvement.

Results contradict a study that parents' involvement is significant in the learning process and contributes to educating students [5]. Not just the student's performance is positively affected by such involvement but the school's performance and shows relevance to the present research since it discusses the effects of the involvement of parents on the academic performance of their children [16]. It was found that the parent's involvement in the education of the students plays a vital role in the contribution to the holistic educational development of a student [1]. Parents' involvement in how they motivate and guide their children at home may not be essential and related since independence can achieve something also without the parents. Still, somehow, in most cases happen that the success and achievements of the students, parents' effort, and support are always present.

Table 5. *Relationship between Parents' Involvement and Achievement of Students*

Variables	df	r	p
Parents Involvement	48	0.150	0.297
Achievement of Students			

Table 6 shows that there was no relationship between the attitude of students and student achievement [$r(48) = 0.208$, $p = 0.148$] at a 0.05 level of significance. This implies that the academic achievement of the students has no association with their attitude toward learning mathematics.

A study contradicts the results that state there is a significant relation even at a low level, and others cannot prove the relationship between attitude and achievement in mathematics as their primary concern [11].

Table 6. *Relationship between Attitude of Students and Achievement of Students*

Variables	df	r	p	Interpretation
Attitude of Students	48	0.208	0.148	Not significant
Achievement of Students				

CONCLUSIONS

The data concludes that the extent of the parent's involvement in mathematics is moderate, while the student's attitude towards Math is average. However, students have "Poor" mathematical achievement.

With regards to the relationship, whether there was a significant relationship between the parent's involvement and the attitude of the students, the discovery of the outcome says that there is importance.

On the other hand, no significant relationship between the parent's involvement and the student's attitude and achievements.

RECOMMENDATION

Considering the findings and conclusions drawn from the study, the following recommendations are made.

Department of Education may craft policies that will encourage the involvement of parents towards the attitude of students towards Mathematics by educating them on the subjects that they find hard to teach to their students at home.

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School heads may provide or implement programs and interventions concerning the involvement of parents in their student's attitudes.

Teachers should create programs and activities that can be done at home that are responsive to the student's needs and will encourage parents to be involved in the progress of the education of their child.

Parents should be provided with information and programs about the importance of being involved and engaged in the process of their child's educational progress as a vital role in the new normal setting of education.

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