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Parental involvement: Its relationship to students' completion of mathematics learning tasks

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Abstract
As the coronavirus pandemic puts face-to-face learning to a halt, parents find themselves at the front of education. They now have the critical task of ensuring their children receive a quality education without compromising their safety. Countless parents are stepping up to support their children who are adjusting to the new education setup for the current school year. This study investigated the relationship of parental involvement to the students' completion of learning tasks in mathematics. The descriptive-correlational research design was used in this study with a sample size of 230 grade 9 students of Narra Integrated School selected through a simple random sampling technique. In analyzing and interpreting data, descriptive statistics and inferential statistics were employed. It was found that most parents had part-time work and were high school graduates. Consequently, the extent of parental involvement in their child's learning tasks completion in mathematics is very involved. Results also showed that most students had completed an average of three modules. Parents' educational attainment significantly affects the number of mathematics learning tasks completed by the students. However, the extent of parental involvement and the number of learning tasks in mathematics completed by the students are not statistically significant. It is suggested that parents' constant monitoring of their child's work can help them finish and submit the tasks on time. Also, the school should initiate awareness campaigns that strengthen parental involvement in supporting students' education, pandemic or not.

Keywords: Involvement, learning tasks, mathematics, parents

Introduction

As the coronavirus pandemic puts face-to-face learning to a halt, parents find themselves at the front of education. Thus, parents now have the critical task of ensuring that their children receive a quality education without compromising their safety. Many parents have stepped up in supporting their children adjust to the setup of education that is somewhat unfamiliar to most of the learners, parents, and the community.

Due to the Education department's shift from face-to-face classes to modular distance learning, students, as well as their parents and legal guardians, made significant steps so that education could continue amidst the pandemic, which brings several challenges. Parents are now more active in going to school because they get the modules and return their children's outputs to their respective class advisers.

There are many instances in which parents are being consulted by their children on the self-learning modules, particularly in Mathematics, because it is a known fact that this subject is feared by both learners and adults alike.

The social and intellectual aspects of children's learning and development are laid down primarily by the parents and families since it is believed that learning and numeracy development is highly influenced by parental support at home. (Jay *et al*., 2018) [1].

Parental involvement refers to a parent's participation in their children's schooling. It is greatly affected by certain factors such as social and cultural influences. Parents with diverse backgrounds influenced their involvement in their children's education. Parenting is vital in Philippine society because the family is the center of one's social world (Bartolome *et al*., 2017) [2].

At home, involvement of parents is evident when a safe and conducive learning environment including the promotion of positive attitude towards the school is provided and ensured. Students' academic achievement is significantly higher when their parents are involved in their education (Durisic and Bunijevac, 2017) [3].

Formal education is one of many ways that children learn and develop. The learning trajectory begins well before children enter school, and once they attend school, they continue to learn at home and in the community. Parents play a critical role in providing learning opportunities at home and linking what children learn at school with what happens elsewhere. By participating in and facilitating diverse learning experiences and activities outside the school, parents become essential to children's overall learning and education. Considered broadly, parental engagement involves partnerships between families, schools, and communities, raising parental awareness of the benefits of engaging in their children's education and providing them with the skills to do so (Emerson *et al*., 2012) [4].

Empirical findings have demonstrated a positive association between parental involvement in education and academic achievement, improving children's self-esteem and academic performance, and school retention and attendance (Lara and Saracostti, 2019) [5].

Levels of parental involvement are affected by the students, their students, and their family characteristics. Working-class families and families in which mothers work full-time tend to be less involved in their children's education. Also, parents of elementary school students tend to be more engaged in their children's education than parents of older students. Other factors, however, are more significant predictors of parental involvement than family income or structure (Sheldon, 2022) [6].

Parental involvement can be affected by several factors, such as the parents' socioeconomic status and educational background. Parents with low educational levels may be less involved in their children's education since they cannot help their children with homework or other school-related issues due to their limited knowledge (Jafarov, 2015) [7].

Findings revealed that parents' economic status and level of education have a significant effect on children's education. One of the parent-related factors noted by the study was parents' socio-economic status, including parents' education level, occupation status, and income. With low literacy levels, parents were said to lack the knowledge and skills to help their children with school work. On the other hand, it was noted that educated parents are more likely to be involved in their children's work than illiterate parents (Magwa and Mugari, 2017) [8]. Similarly, most parents highly involved in their children's education have a medium or high educational level and a good socio-economic status (Marin and Bocos, 2017) [9].

Parents claimed that psycho-social factors such as parents' educational background and income level significantly affect parental involvement. This is because parents prioritize their children's physiological needs such as food, shelter, and clothing instead of school needs (Dimaala, 2019) [10].

Consequently, their children's parenting behavior and educational support could cultivate their learning habits and affect academic performance. Their families' socioeconomic status more heavily influences students' academic performance in urban areas compared with students in rural settings (Zhonglu and Zeqi, 2018) [11].

This paves the way for the researchers to investigate the effect of parental involvement on the students' completion of learning tasks in mathematics and establish the relationship between the parents' profile and the number of learning tasks completed by the students.

Statement of the Problem

The purpose of this study is to determine the effect of parental involvement on the students' completion of learning tasks in mathematics. Answers to the following specific questions were pursued:

1. What describes the parents' profile as to employment status and educational attainment?
2. To what level is the parental involvement of the respondents?
3. What is the weekly average number of learning tasks completed by the students?
4. Does the parents' profile significantly affects their parental involvement and the number of learning tasks completed by the students?
5. Does parental involvement significantly affect the number of learning tasks completed by the students?

Methodology

The Descriptive-Correlational research design was adopted in this study which identified the extent of parental involvement in the students' completion of learning tasks in mathematics and the relationship between the parents' profile, the number of learning tasks completed, and the level of parental involvement. A sample size of 230 from the population of parents in the Junior High School particularly in Grade 9 Regular Class, was computed using Slovin's Formula with a marginal error of 0.05. Probability sampling was used specifically simple random sampling. This study employed data gathering instruments such as the parental involvement scale adopted from the study of Rahman (2001) [12]. The survey questionnaire consists of two parts. The first section involves the descriptive part, which asks about the respondents' profile regarding their employment status and highest educational attainment. The second section involved 5-point Likert-type scales comprising a total of 32 items. The researchers personally administered the survey through limited face-to-face and online means such as google forms and messenger, among others. In interpreting and analyzing the data, descriptive statistics such as frequency count and percentages were employed in describing the respondents' profile and the number of learning tasks completed by the students per week; the weighted mean used in determining the level of parental involvement; while inferential statistics such as the regression analysis was utilized in establishing the relationship among the respondents' profile, the number of learning tasks completed, and level of parental involvement.

Results and Discussions

Parents' Profile

Table 1: Profile of the Parents as to Employment Status and Educational Attainment

	f	%
Employment Status		
▪ Full-time	80	34.78
▪ Part-time	150	65.22
Total	230	100.00
Educational Attainment		
▪ Elementary level	6	2.61
▪ Elementary graduate	2	0.87
▪ High School level	70	30.43
▪ High School graduate	71	30.87
▪ College level	44	19.13
▪ College graduate	37	16.09
Total	230	100.00

Table 1 shows the parents' profile as to employment status and educational attainment. Out of 230 respondents, 150 have part-time work, and only 80 have full-time work. It implies that the majority of the parents' (approximately 65.22%) have part-time work and only 34.78% have full-time work. As to educational attainment, out of 230 respondents, 6 or 2.61% obtained elementary level, 2 or 0.87% were elementary graduates, 70 or 30.43% attained high school level, 71 or 30.87% were high school graduates, 44 or 19.13% achieved college level and 37 or 16.09% were college graduates. The result further indicates that many of the parents were high school graduates.

Parental Involvement

Table 2: The Extent of Parental Involvement on Students' Learning Tasks Completion in Mathematics

Statement	Weighted Mean	Std. dev.	Adjectival Rating
1. I attend the school activities my child is involved in.	3.91	0.842	Very Involved
2. I see that my child does his/her homework.	4.22	0.835	Very Involved
3. I communicate with my child's teachers.	4.06	0.751	Very Involved
4. I keep track of my child's progress on his/her learning tasks in mathematics.	3.43	1.068	Very Involved
5. I would contact the mathematics teacher if my child seems to be having a problem.	4.04	0.900	Very Involved
6. I attend parent/teacher conferences.	4.03	0.792	Very Involved
7. Homework is completed before participating in other activities	3.99	0.918	Very Involved
8. I encourage my child to read mathematics books and other educational materials at home.	4.08	0.919	Very Involved
9. I reward my child for good grades.	3.99	0.844	Very Involved
10. Helping my child with homework is important	3.88	1.015	Very Involved
11. Monitoring my child's homework is an important part of his/her education.	4.11	0.801	Very Involved
12. It's important to encourage my child so he/she feels successful for simply working hard on his/her homework.	4.10	0.856	Very Involved
13. I assist my child with his/her learning tasks in mathematics.	3.60	0.960	Very Involved
14. Parents have a responsibility to see that their children have their homework done.	4.06	0.937	Very Involved
15. The amount of time I spend with my child has little bearing on his/her success in school.	3.46	1.088	Very Involved
Composite Mean	3.93	Very Involved	

Table 2 displays the extent of involvement of the parents in their child's learning tasks completion in mathematics. It can be gleaned that all the 15 identified indicators obtained an adjectival rating of very involved with the statement *"I see that my child does his/her homework"* receiving the highest weighted mean of 4.22.

The results further reveal that the parents' extent of involvement in their child's learning tasks completion in mathematics is very involved with a composite mean of 3.93.

Learning Tasks Completion

Table 3: Average Number of Mathematics' Learning Tasks Completed

Number of Learning Tasks Completed	Frequency	Percentage
1	41	17.83
2	56	24.35
3	106	46.09
4	18	7.83
5	9	3.91
Total	230	100.00

In Table 3, the average number of learning tasks in mathematics completed by the students is shown.

Most of the students or 46.09% had completed an average of three modules (*f = 106*). More so, there were 56 students who had completed an average of two modules, and 41 students who had completed one module.

Parents' Profile and Parental Involvement

Table 4: Relationship between the Parents' Profile and the Extent of Parental Involvement

	Coefficients	Std. Error	t Stat	p-value
Intercept	3.4957343	0.6229378	5.611690	1.941E-0
Employment Status	-0.0793905	0.2525779	-0.314320	0.7549967
Educational Attainment	0.0288274	0.0899445	0.320502	0.7503433

A Multiple Regression Analysis was run to determine the relationship between the extent of parental involvement and the parents' profile. Since the computed p-values were all greater than the 0.05 level of significance, then we fail to reject the null hypothesis. This leads us to the conclusion that there is no significant relationship between the parents' profile in terms of employment status and educational attainment and the extent of parental involvement in their child's learning tasks completion in mathematics.

Parents' Profile and Learning Tasks

Table 5: Relationship between the Parents' Profile and the Number of Learning Tasks Completed

	Coefficients	Std. Error	t Stat	p-value
Intercept	3.28962795	1.2165287	2.704110	0.0101891
Emp. Status	0.55437253	0.4932568	1.123902	0.2681045
Educ. Attainment	-0.4025601	0.175651	-2.291807	0.0275483

A Multiple Regression Analysis was run to determine the relationship between the parents' profile and the number of learning tasks completed by the students. Since the computed p-value of 0.02754839 was less than the 0.05 level of significance, then we reject the null hypothesis. This leads us to the conclusion that there is a significant relationship between the parents' profile in terms of educational attainment and the number of mathematics learning tasks completed by the students.

On the contrary, the computed p-value of 0.26810451 for employment status was greater than the 0.05 level of significance. This leads us to the conclusion that there is no significant relationship between the parents' profile in terms of employment status and the number of mathematics learning tasks completed by the students.

Parental Involvement and Learning Tasks

Table 6: Relationship between the Extent of Parental Involvement and the Number of Learning Tasks Completed

	Coefficients	Standard Error	t Stat	p-value
Intercept	3.51752159	1.18541642	2.9673299	0.00511079
Parental Involvement	-0.2200415	0.33835374	-0.6503297	0.5192922

A Linear Regression Analysis was run to determine the relationship between the extent of parental involvement and the number of learning tasks in mathematics completed by the students. Since the computed p-value was greater than the 0.05 level of significance, then we failed to reject the null hypothesis. This leads us to the conclusion that there is no significant relationship between the extent of parental involvement and the number of learning tasks in mathematics completed by the students.

Conclusion

This study considered the relationship between the parental involvement and their children's completion of learning tasks in mathematics. Findings showed that most of the parents had part-time work and were high school graduates. The extent of parental of involvement in their children's learning tasks completion in mathematics is very involved. Many of the students had completed an average of three modules. There is no significant relationship between the parents' profile in terms of employment status and educational attainment and the extent of parental involvement in their child's learning tasks completion in mathematics. There is a significant relationship between the parents' profile in terms of educational attainment and the number of mathematics learning tasks completed by the students. There is no significant relationship between the extent of parental involvement and the number of learning tasks in mathematics completed by the students. This study suggests that there shall be close involvement of parents in modular learning activities and encourage active participation as partners in their child's learning. Constant monitoring of their child's work can help them finish and submit the tasks on time. More so, the school should initiate awareness campaigns that strengthen parental involvement in supporting students' education, pandemic or not.

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