

THE ROLE AND CHALLENGES MET BY PARENTS IN THE IMPLEMENTATION OF MODULAR DISTANCE LEARNING IN MATHEMATICS

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ABSTRACT

COVID-19 has had a significant impact on the Philippine educational system. The country shifted from face-to-face classes to distance learning, including modular distance learning. Parents play a vital role for the success of said learning modality. The present study examined the parent's level of understanding of the Mathematical contents, and their extent of parental roles and challenges encountered. It also determined relationships between the parental roles and profile variables versus the encountered level of challenges. Lastly, the study enumerates possible solutions to challenges met by parents. The study was participated by 118 parents. Frequencies and percentage distribution were used to describe the parents' profiles. Net agreement ratings were computed to measure the parents' understanding of the contents of Mathematics and the extent of the roles. The challenges met by parents were the indicators of the level of knowledge of the contents of Mathematics with negative net agreement ratings. It was unveiled that educational attainment and family monthly income are significantly related to the extent of challenges. Moreover, in implementing modular distance learning in Mathematics, parents as monitors, content advisers, and learning counselors were significantly related to the extent of challenges met by parents in implementing modular distance learning in Mathematics.

Keywords: challenges of the parents, modular distance learning, role of parents



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INTRODUCTION

The Coronavirus disease 2019 (COVID-19) is an infectious disease that escalated worldwide. It affects all types of people and eventually became a global health crisis in massive proportions. Because of this, the Philippines has transitioned to a new normal education model. Educators' constant advances and strong participation from other stakeholders are the motivating forces behind its development. For instance, the Philippines' Department of Education (DepEd) launched the Modular Distance Learning Delivery to ensure the continuity of education and allow each school to continue fulfilling its mission and vision of providing quality education to every Filipino learner (Dangle & Sumaoang, 2020). Modular learning is a form of distance learning that uses Self-Learning Modules based on DepEd's most essential learning competencies (MELCS). The modules include sections on motivation and assessment that serve as a complete guide of both teachers' and students' desired competencies (Manlangit *et al.*, 2020). It is a learning delivery modality where students learn distanced from the school using a printed module provided by teachers and fetched by parents from school to their children and back to school. In this learning delivery modality, parents will play a vital role as home facilitators.

As a result of the COVID-19 pandemic, which forced school closures and shifted learning to the home, parents have taken on the role of educators as key resources in the home, mainly when supporting learners in completing their modules. These uncertain times have put much pressure on parents, who have a lot of responsibilities besides being their child's teacher at home. They became apprehensive as a result of this. Cai *et al.* (1999) investigated parental engagement roles (motivator, resource provider, monitor, mathematics content advisor, and Mathematics learning counselor) and student mathematics achievement. The findings imply that all five parental engagement roles, taken together, significantly impact children's mathematics achievement, as tested by both the mathematics proficiency exam and the mathematics performance evaluation. According to the findings of this study, parental engagement is a strong predictor of students' mathematics achievement. All five parental roles were discovered to impact student achievement significantly. According to Blazer (2005), family involvement is a substantial predictor of excellent student achievement. Students with their families involved in their education tend to have better

grades and test scores, do more homework, have better attendance, and have more positive attitudes and behaviors.

In the Philippines, most parents chose printed modular distance learning because of the lack of accessibility to gadgets. With this, parents will play a vital role in delivering the curriculum. They will guide, motivate, act as more knowledgeable others (MKO), and be a good learning model for the students because learning will take place in their homes. Traditionally, researchers have concentrated on parental roles that provide direct assistance. Direct, traditional family support (e.g., checking homework) does not appear to be as effective as expected, according to Cai *et al.* (1999). Direct assistance roles include Mathematics content adviser and Mathematics learning counsellor. Indirect assistance roles include motivator, resource provider, and monitor. However, parents are unprepared for the said learning delivery modality and have met challenges. The present study examined the extent of the role of the parents in the implementation of modular distance learning, and its challenges met.

The study generally aimed to investigate the role and the challenges met by parents in the implementation of modular distance learning in Mathematics and the following were the objectives of the study: (a) describe the profile of the parents in terms of sex, age, household size, number of children enrolled in this school year in high school, highest educational attainment, distance from home to school, family monthly income and occupation; (b) examine the parent's level of understanding of the contents of Mathematics; (c) determine the extent of the role of the parents in the implementation modular distance learning; (d) determine the challenges met by parents in the implementation of modular distance learning; (e) ascertain if the profile variables of the parents related to the challenges met by parents in the implementation of modular distance learning; (f) analyse if the extent of the parent's role related to the challenges met by parents in the implementation of modular distance learning; and (g) devise solutions to the challenges met by parents in the implementation of modular distance learning.

METHODOLOGY

Research Design

The study utilised descriptive-correlational research to measure the level of understanding of the contents in Mathematics of the respondents and the role and the challenges met by parents in implementing modular distance learning in Buena Gracia National High School, Municipality of Talacogon, Agusan del Sur, Philippines, 8510. Descriptive research was applied as it determined the level of understanding of the contents in Mathematics, the role of the parents, and the challenges met in implementing modular distance learning in Mathematics. A correlational study was applied because this study determined the significant relationship between the extent of challenges met by parents and the parents' profile and roles in implementing modular distance learning in Mathematics.

Respondents of the Study

Stratified random sampling was utilised in relation to the location of the parents from barangay Buena Gracia and barangay La Flora of the Municipality of Talacogon, Agusan del Sur, Philippines, 8510. The total population of the parents of Buena Gracia National High School was 168. Out of this number, 118 parents were sampled to participate in the study.

Instrumentation

The instrument was an adopted-modified survey questionnaire validated by three experts in the field of Mathematics and in teaching Mathematics. The survey questionnaire was composed of 5 parts: Part I (personal information), which includes gender, age, household size, number of children enrolled in this school year, highest educational attainment, distance from home to school, family monthly income, and occupation. Part II includes statements that measure parents' level of understanding of Mathematics. Part III includes statements that measure the extent of parental roles in implementing modular distance learning. Some of the indicators of Part III were taken from the study of Cai *et al.* (1999). Lastly, part IV includes possible solutions to the challenges met by parents in implementing modular distance learning. The instrument was also pilot

tested at Marbon National High School, one of the schools in Talacogon, Agusan del Sur. There were 30 parents in pilot testing who were randomly selected, producing Cronbach's alpha values of 0.905 and 0.769, for level of understanding the contents and role of the parents, respectively.

Data Analysis

Frequency counts and percentage distributions were used to describe the profile of the parents. In contrast, net agreement rating was used to measure the level of understanding of the contents and the parents' role in implementing modular distance learning. The indicators of the level of understanding contents in Mathematics with a negative net agreement were considered as the parents' challenges using the transformed responses through reversing. Spearman-rank correlation was used to measure the relationship between the extent of challenges and the profile of the parents and their parental roles in the implementation of modular distance learning. Prior to that, data cleaning was done through descriptive statistics by examining missing values, skewness, maximum, and minimum. Table 1 was utilised to interpret the net agreement rating of the respondents in the level of understanding of the contents in Mathematics, and the role of the parents. The scale used was from the Social Weather Stations (2020). Table 2 was the scale used in determining the strength of the relationship.

Table 1: Interpretation for Net Agreement Rating

Net Agreement Rating	Interpretation
+50 and above	Very strong
+30 to +49	Strong
+10 to +29	Moderate
+9 to -9	Neutral
-10 to -29	Poor
-30 to -49	Weak
-50 and below	Very weak

Table 2: Strength of Relationship

Negative	Strength of Relationship	Positive
-0.81 to -1	Very strong	0.81 to 1
-0.61 to -0.8	Strong	0.61 to 0.8
-0.41 to -0.6	Moderate	0.41 to 0.6
-0.21 to -0.4	Weak	0.21 to 0.4
0 to -0.2	Very weak	0 to 0.2

FINDINGS AND DISCUSSIONS

Socio-Economic Profile of the Parents

Table 3 shows that the majority of the parents (72.03%) in the study are females, and 28% are males. Besides, most parents (63.56%) were aged 38 - 53 years old. In 2018, Pew Research Center defined persons 38 – 53 as Gen X. According to Moran (2016), Gen X is not considered digital natives. A digital native is a person who grew up in a digital, media-rich environment. With this, parents will have difficulties using technology. In addition, the location, Buena Gracia and La Flora have mobile signal difficulty. As a result, that most of the parents are not digital natives and the location of the parents have mobile signal difficulties, there was a difficulty in implementing online distance learning. Thus, modular distance learning was implemented in Buena Gracia National High School.

It also showed that in many instances, the family household size of the parents could be classified as small to medium and 45.76% of the household has only one (1) number of children enrolled in this school year in high school. More than half of the parents (52.54%) are elementary level, and only a few (2.54%) graduated from college. A large percentage of those who took part in the survey (64.40%) did not even get into high school.

Table 3: Socio-Economic Profile of the Respondents

Variable	Category	f	%
Gender	Male	33	27.97
	Female	85	72.03
Age	22-37 years old	18	15.25
	38-53 years old	75	63.56
	54-72 years old	25	21.19
Household size	Small (three or four members)	39	33.05
	Medium (five or six members)	39	33.05
	Large (seven or eight members)	27	22.88
	Extra-large (nine or more members)	13	11.02
Number of children enrolled in high school	1	54	45.76
	2	47	39.83
	3	14	11.86
	4	3	2.54
Highest educational attainment	Elementary level	62	52.54
	Elementary graduate	14	11.86
	High school level	22	18.64
	High school graduate	15	12.71
	College level	2	1.69
	College graduate	3	2.54
Distance from home to school	Less than 1,000 meters	72	61.02
	1,000 meters and more	46	38.98
Family monthly income	Poor (Less than Php 10, 957 monthly income)	103	87.29
	Low Income (Php 10,957 and above monthly income)	15	12.71
Occupation	Service and sales workers	20	16.95
	Skilled agricultural, forestry and fishery workers	72	61.02
	Elementary occupations	18	15.25
	Craft and related trade works	4	3.39
	Professionals	1	0.85
	Technicians and associate professionals	3	2.54

Most parents live near the school, with 61.02% residing less than 1,000 meters from the school. This follows that the school is very accessible to

the parents. About 87.29% of the parents have an estimated family monthly income of less than Php 10957. According to the Philippine Institute for Development Studies (2020), a family with an estimated monthly income of less than Php 10,957 is considered poor. These parents are dominated by occupation in Skilled Agricultural, Forestry, and Fishery Workers (61.02%). This is because of the geographic location of the community since Buena Gracia, and La Flora are located near Agusan Marsh Wildlife Sanctuary, which is abundant with catfish and carp and is good land for farming.

Level of Understanding of the Contents in Mathematics of the Parents

In Table 4, the parents strongly perceived that they have the capability of guiding their children in accomplishing their modules in Mathematics but weakly agreed that they have adequate knowledge of the contents of topics in Mathematics. In addition, parents perceived their knowledge of the topics in Mathematics could moderately help their children to answer their child’s modules. However, parents find the topics or contents in Mathematics hard to understand, and their level of understanding of the contents in mathematics could not allow for great learning outcomes for their children.

Table 4: Level of Understanding the Contents in Mathematics and Challenges Met by Parents

Indicators	Net Agreement	Remark
I have the capability of guiding my child in accomplishing his modules in Mathematics.	33.05%	Strong
My knowledge of the topics in Mathematics helps my child to answer his modules.	11.86%	Moderate
My knowledge of the contents transcends to my child’s understanding of the topics in Mathematics	-22.88%	Poor
My knowledge in the topics in Mathematics helps my child’s learning.	-29.66%	Weak
I find the topics or contents in Mathematics as hard to understand.	-36.44%	Weak
My level of understanding the contents in Mathematics allows for great learning outcomes of my child.	-39.83%	Weak
I have adequate knowledge of the contents or topics in Mathematics.	-45.76%	Weak

According to Jay and Xolocotzin (2012), many parents would like to help their children with mathematics but are worried about their capacity to do so. The parents of Buena Gracia National High School have challenges in the level of understanding of the contents of Mathematics. This is supported by Jay *et al.* (2018), who stated that parents did not possess an appropriate level of content knowledge to support their child's learning.

Challenges Met by Parents

The challenges of the parents in implementing modular distance learning are the indicators in Table 4 level of understanding of the contents in Mathematics and Challenges of the parents with a negative net agreement rating. A negative net agreement rating means a more significant number of parents disagree than agree with each indicator. According to Garbe *et al.* (2020), a hurdle was a lack of parent content knowledge or pedagogy. They say parents self-identify as lacking in capital to assist children in the subject of Mathematics. Due to the parents' perceptions of their mathematical abilities and attitudes toward mathematics make parental roles in children's mathematics learning challenging. Parents would like to help their children in mathematics, but they meet a number of challenges in doing so (Jay *et al.*, 2018).

In Table 4, it can be seen that the parents were challenged with five (5) indicators in the level of understanding of the contents of Mathematics. Parents have no adequate knowledge of the contents of Mathematics. This is why they have difficulties in helping their child in learning. Olivo (2020) reported that parents could not guide their children in completing learning tasks because they did not understand some topics. Trovela (2021) claimed that some parents could not grasp the lessons on the modules.

Moreover, parents find the contents of Mathematics hard to understand, and their level of understanding of the contents of Mathematics could not allow for significant learning outcomes for their child. In addition, parents' knowledge of the contents could not transcend their child's understanding of the topics in Mathematics. In support, Dangle and Sumaoang (2020) stated that parents have challenges understanding and answering their child's modules because it is hard to understand.

Parents' Role as Motivators and Resource Providers

As one of the roles of parents in a child's education in learning Mathematics, they should give appropriate praise, encouragement, and rewards to heighten their child's motivation to learn (Manlangi *et al.*, 2020). Table 5 shows that the parents very strongly maintain good relationships with their children and give appropriate praise, encouragement, and rewards for their children to work hard on solving mathematics problems even though the problem may be difficult.

Table 5: Parents' Role as Motivators and Resource Providers

Indicators	Net Agreement	Remark
As motivators		
I maintain good relationship with my child.	96.61%	Very strong
I give appropriate praises for my child to work hard on solving mathematics problem even though the problem may be difficult.	93.22%	Very strong
I encourage my child to work on mathematics problem even though the problem may be difficult.	89.83%	Very strong
I give rewards for my child to work hard on mathematics even though the problem may be difficult.	85.59%	Very strong
As resource providers		
I provide a conducive place where my child could learn.	91.53%	Very strong
I try to find Mathematics books for my child's references.	87.29%	Very strong
I retrieve the modules from my child to school.	71.19%	Very strong
I fetch the modules for my child from school.	71.19%	Very strong
I can provide internet access for my child's references.	41.53%	Strong

As per Cai *et al.* (1999), several parents claim they continuously give emotional support to their children's mathematical studies. The majority of the parents said that they encourage their children to work hard on mathematics problems at home, even if the questions are difficult. Almost all parents believe mathematics will play an essential role in their children's future life, and many claims to be able to motivate their children

to excel in math. Children get motivated by their parents through praises and appreciation (Ghazi *et al.*, 2010).

Manlangit *et al.* (2020) stated that parents should be responsible for acquiring their child's various materials and resources; they should also prepare a conducive learning study space. Table 5 revealed that the parents very strongly provide a conducive place where their child could learn. They very strongly perceived that they regularly retrieve and fetch modules from their child to school regularly. Accordingly, parents do not have challenges with the schedules of fetching and retrieving modules (Dangle & Sumaoang, 2020). Moreover, parents very strongly try to find Mathematics books for their child's references but firmly provide internet access for their child's references. As to their statistics, over 90% of parents believe they make an effort at home to provide a pleasant learning environment for their children to perform mathematics (Cai *et al.*, 1999). Parents buy math-related books, even though parents frequently take their children to public libraries. A range of games and puzzles that help develop children's arithmetic skills are found in nearly 60% of households. Garbe *et al.* (2020) added that parents expressed having just the right number of resources available for their child's learning a home.

Parents' Role as Monitors, Content Advisors, and Mathematics Learning Counselors

In the statistics, parents responded strongly that they allot enough time for their child to finish their schoolwork. Besides, parents make sure that their child sticks to the schedule given by the mathematics teacher and strongly monitor their child's learning and progress by communicating with their child's teachers. As reported by Cai *et al.* (1999), parents regularly check their children's homework and use readily available school tools to keep track of their children's Mathematics requirements on a regular basis.

Table 6: Parents’ Role as Monitors, Content Advisors, and Learning Counselors

Indicators	Net Agreement	Remark
As monitors		
I allot enough time for my child to finish his schoolworks.	100.00%	Very strong
I make sure my child sticks to the schedule given by the mathematics teacher.	90.68%	Very strong
I attend school meetings regularly.	83.90%	Very strong
I quarterly get my child’s learning progress report card.	83.05%	Very strong
I monitor my child’s learning and progress by communicating my child’s teacher.	49.15%	Strong
As content advisors		
I make an effort to understand the mathematics my child is answering.	47.46%	Strong
I discuss with my child how mathematics is used in daily life.	28.81%	Moderate
I help my child in answering his mathematics schoolworks.	-1.96%	Neutral
As Mathematics learning counselors		
I know my child’s weaknesses in learning mathematics.	85.59%	Very strong
I know some strategies to help my child overcome his/her weaknesses.	27.97%	Moderate
I try to figure out good approaches for helping my child learn different math topics.	27.12%	Moderate
I know my child’s strengths in learning Mathematics.	22.88%	Moderate

In Table 6, the parents strongly make an effort to understand Mathematics that their child is studying and moderately discuss with them how Mathematics is used in daily life. Apart from this, parents frequently help their child in answering his/her Mathematics school work. Confirming to Cai *et al.* (1999), parents make an attempt to comprehend the mathematics their children are learning in school, but fewer of the parents believe they are knowledgeable enough to assist their children. Parents moderately explain how mathematics is utilised in everyday life with their children, and frequently assist their children with math homework. Dangle and Sumaoang

(2020) claim that parents do not have adequate time to assist their children with their modules.

Statistics revealed that the parents very strongly know their child's weaknesses and moderately know their strengths in learning Mathematics. Also, they moderately believe that they know some strategies and tried to figure out good approaches to help their child overcome his/her weaknesses to learn from different Mathematics topics. In accordance with Cai *et al.* (1999), parents believe they know their children's strengths and weaknesses in mathematics, and believe they know how to assist them to overcome their weaknesses. A few numbers of parents are attempting to devise efficient strategies for assisting their children in the learning of various mathematical concepts.

Relationships between the Extent of Challenges and the Profile of the Parents

Table 7 explicitly shows the relationship between the extent of challenges and the profile of the parents. Among the parents' profiles, educational attainment and family monthly income are significantly correlated with their extent of challenges. Educational attainment is strongly related to the challenges parents meet in implementing modular distance learning in Mathematics. Apart from this, the relationship between educational attainment and the extent of challenges has a negative relationship. This simply implies that the higher the educational attainment of the parents, the lower the extent of challenges there is, or the lower the educational attainment of the parents, the higher the extent of challenges the respondents have met in implementing modular distance learning in Mathematics.

Table 7: Relationships between the Extent of Challenges and the Profile of the Parents

Variable 1	Variable 2	Correlation Coefficient	P-value	Remark
Extent of challenges	Age	0.147	0.112	Not significant
	Household size	-0.090	0.334	Not significant
	No. of children in high school	-0.026	0.784	Not significant
	Educational attainment	-0.773	0.001	Significant, very strong, inverse relationship
	Distance to school	0.180	0.051	Not significant
	Family monthly income	-0.320	0.001	Significant, weak, inverse relationship

*Tested at 0.05 level of significance using Spearman's rho correlation test

According to Chin (2020), implementing modular distance learning in the Philippines is one of the challenges that parents may face because not all parents have received adequate schooling parental/guardian educational attainment. According to Abuhammad (2020), parents are concerned about their educational backgrounds. Parents with a lower level of education said they could not help their children with specific topics or technology. Manlangit *et al.* (2020) emphasised the significance of parents' educational attainment to increase their trust and competence in leading their children's education and reduce the variety of challenges they met. This concludes that in Buena Gracia National High School, the parents' educational attainment is a factor in the challenges they have met in implementing modular distance learning in Mathematics. This follows that the parents with lower educational attainment have experienced more challenges than those with higher educational attainment. This is because not all parents have received adequate schooling (Chin, 2020).

The family monthly income is weakly related to the challenges met by parents in implementing modular distance learning in Mathematics. Additionally, there is a negative relationship between the family income and the extent of challenges. It infers that the higher the family's monthly

income, the lower the extent of challenges the parents have met. Also, the lower the family's monthly income, the higher the extent of challenges they face. The nature and level of parental involvement are influenced by societal factors, including economic variables (Eccles & Harold, 1993; Hornby & Lafaele, 2011). This explicitly means that the parents of Buena Gracia National High School's family monthly income are a factor that the parents are experiencing challenges in the implementation of modular distance learning in Mathematics. This follows that if the family monthly income of the parents in Buena Gracia National High School is high, the extent of challenges is lower. If the parents' family income is lower, the challenges are greater.

It can also be seen that age, household size, number of children enrolled in high school and distance from home to school shows no significant relationship to the extent of challenges of parents. This follows that in Buena Gracia National High School, parents' differences in age, household size, number of children enrolled in high school, and distance from home to school are not a factor for a parent to experience more challenges than the other.

Relationships between the Extent of Challenges and the Role of the Parents

Table 8 shows the relationship between the extent of challenges and the role of the parents. Out of these five roles of the parents in implementing modular distance learning in Mathematics, parents as monitors, Mathematics content advisers, and mathematics learning counselors were significantly related to the extent of challenges. Parents as monitors are very weakly related to the challenges of a negative relationship. This follows that as parents' perceptions as monitors increases, the extent of challenges decreases. Also, as their perceptions as monitors decreases, the extent of challenges increases. It winds up that as the parents of Buena Gracia National High School attend school meetings regularly, quarterly get their child's learning progress report card, make sure their child sticks to the schedule given by the mathematics teacher, monitor their child's learning and progress by communicating their child's teacher, and allot enough time for their child to finish his/her schoolwork decreases the extent of challenges parents will face.

Parents' role as Mathematics content advisers is significantly related to the extent of challenges in implementing modular distance learning in Mathematics. It is moderately and negatively related to the extent of challenges. In Buena Gracia National High School as parents make an effort to understand the mathematics their child is studying, discuss with their child how mathematics is used in daily life, and help their child in answering his/her mathematics schoolworks; it decreases the extent of challenges they have met in the implementation of modular distance learning in Mathematics.

Furthermore, there is a significant relationship between parents as Mathematics learning counselors and the extent of challenges. Also, there is a weak and negative relationship between the Mathematics learning counselor role and the extent of challenges. This means that as the parents' perception of mathematics learning counselors increases, the extent of challenges decreases. It can be depicted that if the manifested level as a mathematics learning counselor decrease, the extent of challenges increases. According to Abuhammad (2020), the major challenges were parents' lack of training in managing distance learning techniques and materials and a lack of qualified staff to help them.

Table 8: Relationships between the Extent of Challenges and the Role of the Parents

Variable 1	Variable 2	Correlation Coefficient	P-value	Remark
Extent of Challenges	As a Motivator	-0.146	0.116	Not significant
	As a resource provider	-0.145	0.118	Not significant
	As a Monitor	-0.182	0.049	Significant, very weak, inverse relationship
	As a Mathematics Content Adviser	-0.460	0.001	Significant, moderate, inverse relationship
	As a Mathematics Learning Counsellor	-0.358	0.001	Significant, weak, inverse relationship

*Tested at 0.05 level of significance using Spearman's rho correlation test

One of the challenges parents encounter in implementing modular distance learning, as Dangle and Sumaoang (2020) so eloquently mentioned, is their lack of information about how to guide their child/children intellectually. This concludes that in Buena Gracia National High School if the parents know their child's strengths and weaknesses in learning Mathematics, know some strategies to help their child overcome his/her weaknesses, and try to figure out good approaches for helping their child, and learn different math topics; it decreases the extent of challenges of parents in the implementation of modular distance learning in Mathematics.

It can be regarded that there is no significant difference between the extent of challenges of the parents and their role as motivators and resource providers. This follows that the parents' differences in paying attention to their role as motivator and resource providers to their children has no significant relationship to the extent of their challenges met in implementing modular distance learning in Mathematics.

Possible Solutions to the Challenges Met by Parents in the Implementation of Modular Distance Learning in Mathematics

Table 9 illustrates the frequency of respondents agreeing to possible solutions that could help them in the challenges they have met in implementing modular distance learning. To begin with, parents, according to Jay *et al.* (2018), wanted to know more about their children's progress in Mathematics. It was clearly seen that all the parents (100.00%) agreed that there should be a regular meeting between the parents and teachers to discuss student progress and feedback. Patterson (2020) mentioned that during this time, it is more vital than ever for teachers and parents to interact to assist their children's growth as quickly as possible. In addition, most parents (99.15%) admitted that teachers should inspire parents to value their child's persistence with challenging mathematical tasks.

Furthermore, a significant percentage of parents (98.31%) agreed that teachers should meaningfully communicate current approaches to teaching and learning mathematics because the current approaches and methods taught to their children are different from those when parents are taught in school. Parents claimed they desired more from teachers on mathematical approaches (Jay *et al.*, 2018). Moreover, most parents (96.61%) agreed that

they should visit the teacher to clarify the topics/ contents in Mathematics and that teachers should provide opportunities for parents to engage with mathematical activities at home. This is supported by Jay and Xolocotzin (2012) that family activities can include a variety of mathematical thinking and learning and that parents can draw attention to mathematical activity by modeling, prompting, or disclosing a solution by sharing everyday problems with their children. Besides, more than 90 percent of the parents (95.76%) concurred that teachers should invite parents to share their insights from home and personal everyday mathematical tasks. Finally, with a percentage of 66.95, most of the parents agreed that teachers should schedule a regular home visitation.

Table 9: Possible Solutions to the Challenges Met by Parents in the Implementation of Modular Distance Learning in Mathematics

Possible Solutions	f	%
A regular meeting of the parents and teachers to discuss student progress and feedback.	118	100.00
Teachers should inspire parents to value their child's persistence with challenging mathematical tasks.	117	99.15
Teachers should meaningfully communicate current approaches to teaching and learning mathematics.	116	98.31
The parents will visit the teacher for clarification of the topics/ contents in Mathematics.	114	96.61
Teachers should provide opportunities for parents to engage with mathematical activities at home.	114	96.61
The teacher will invite parents to share their insights from home and personal everyday mathematical tasks.	113	95.76
Teachers should encourage parents to engage in ongoing conversations about mathematics at home.	110	93.22
A regular home visitation should be scheduled by teachers.	79	66.95

Given this, Buena Gracia National High School teachers and school administrators should prioritise having regular meetings with the parents to discuss student's progress and feedback. Also, teachers should inspire parents to value their child's persistence with challenging mathematical tasks. Moreover, teachers should meaningfully communicate current approaches to teaching and learning mathematics. Also, parents agreed on the necessity to visit the teachers of their child for clarification of the topics or contents in Mathematics. Due to this, teachers should provide

opportunities for parents to engage in mathematical activities at home. Additionally, teachers could invite parents to share their insights from home and personal everyday mathematical tasks. Last to prioritise is the scheduling of the teachers to home visitation.

CONCLUSIONS

In conclusion, parents strongly perceived that they are able to guide their children in accomplishing their modules in Mathematics but weakly agreed that they have adequate knowledge of the contents of topics in Mathematics. In addition, parents perceived their knowledge of the topics in Mathematics could help their children answer their child's modules successfully. On the one hand, parents find the topics or contents in Mathematics hard to understand, and their level of understanding of the contents in Mathematics could not allow for great learning outcomes for their child. Also, the parents have challenges in the level of understanding of the contents of Mathematics.

The parents are challenged with five indicators in the level of understanding of the contents of Mathematics. Parents have no adequate knowledge of the contents of Mathematics. This is why they have difficulties in helping their child in learning. Moreover, parents find the contents of Mathematics hard to understand, and their level of understanding of the contents of Mathematics could not allow for great learning outcomes for their child. In addition, parents' knowledge of the contents could not transcend their child's understanding of the topics in Mathematics. The respondents' extent of their roles is not enough and increases the extent of challenges. The respondents met different challenges due to inadequate performance in their roles as monitors, mathematics content advisers, and mathematics learning counselors.

Respondents' profiles are related to the extent of challenges met in implementing modular distance learning in Mathematics, specifically their educational background and family monthly income. Many respondents in Buena Gracia National High School are only elementary level and elementary graduates. The statistics of the study led to the conclusion that the parents of the Buena Gracia National High School students should actively participate in school activities, such as regularly attending meetings.

The parents should actively communicate with teachers about their child's learning progress and ask for clarification about the contents of Mathematics. On the other hand, teachers should actively communicate with parents about different approaches to teaching and learning mathematics, engage parents with mathematical activities at home and inspire parents to value their child's persistence with challenging mathematical tasks.

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