

RESEARCH ARTICLE

Modular distance learning: Exploring the study habits and academic achievements of state-funded elementary school learners

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ABSTRACT

Because of the COVID-19 epidemic, schools have been forced to switch to a mode of instruction that does not involve face-to-face interaction. This has led to enormous changes in the education business on a global scale. A modular distance learning study was conducted with the purpose of determining the study habits and academic accomplishments of elementary school students who received funding from the state. In the course of the research, a total of 260 primary school students were surveyed using a descriptive survey research method as well as an instrument that had been created and modified. There are often one to three members of the family who are being instructed by the mother, and the majority of families of the state funded primary school learners are considered to be low-income households. During the course of modular distance learning, the learners received a rating that was very satisfactory in terms of their academic success. There is a correlation between study habits and academic achievement.

Keywords: tutors; modular distance learning; study habits; number of siblings; parents

1. Introduction

In the Philippines, the delivery of health and education services has been severely disrupted by the coronavirus (COVID-19) pandemic. Anticipated learning losses for students are expected to be extremely high due to school closures and difficulties with the delivery of online learning ^[1]. The modular approach enables Filipino students to learn comfortably from home. Due to limited contact with teachers, parents or guardians acted as the learners' tutors. As was to be expected, students spent more time studying in the library or collaboratively with their classmates prior to the pandemic. Learners had the freedom to be with their classmates and friends, studying together, and collaboratively. Hence, when pandemic had taken over, their way of learning changed, thus distance learning had been implemented ^[2].

School closures harm student achievement, especially in younger students and those from families with low socioeconomic status ^[3], as students make little or no progress while learning from home, suggesting even larger losses in countries with weaker infrastructure or longer school closures ^[4]. Study habits and academic performance are affected by the COVID 19 pandemic. Students enrolled in modular distance learning exhibit poor study habits, such as reading in bed, being unable to dedicate at least three hours a day

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to studying, not utilizing the internet to find supplementary resources, and neglecting to review their notes prior to face-to-face meetings. Students enrolled in distance learning require advice and counseling on time management, prioritizing their daily tasks, and enhancing their reading comprehension ^[5]. Distance learners face a variety of difficulties, including juggling the demands of work, family, and study time. Student persistence and retention are significantly influenced by how, where, and when a student arranges and engages with their study environment ^[6].

According to OECD, (2019) prior to the COVID 19 pandemic, fifteen-year-old students performed worse in reading, arithmetic, and science than students in the majority of nations and economies that participated in the Program for International Students Assessment (PISA) 2018. Among all PISA-participating nations and economies, the Philippines has one of the highest percentages of low performers—more than 80% of pupils not meeting a minimal reading competence level ^[7].

Study habits have consistently been found to influence the academic achievements of students. Despite the increasing number of investigations into the relationship between the two variables, there remains a gap in the conduct of the same investigation contextualized with students who opted for modular distance learning during the pandemic. This study aims to determine the study habits and academic achievements of state-funded elementary school students during modular distance learning. The study's findings could be used to develop a coaching program for parents, relatives, and other adults who can provide their perspectives, reflections, and helpful discussions on various topics. In some cases, they helped their children or tutees achieve the best outcome on module task submissions.

2. Research questions

- 1) What is the academic achievement of the respondents during modular distance learning?
- 2) What are the study habits of the respondents during modular distance learning?
- 3) Is there a significant relationship between the study habits and academic achievement of the respondents during modular distance learning?

3. Literature

The COVID-19 pandemic has negatively impacted education systems. For instance, to prevent the spread of the coronavirus, most countries temporarily closed schools and other educational institutions ^[8,9]. The Department of Education (DepEd) adopted and implemented a flexible model of blended learning despite opposition due to the risk of opening classes. Modular Distance Learning is one of the modalities employed by learning institutions. Teachers create modules that contain various tasks and learning activities based on essential learning competencies and distribute them to students ^[10]. The tutoring services were also affected by the pandemic hence making the rate for every tutor sessions higher than before the pandemic and making the other clients who availed the service back out ^[11].

3.1. Study habits in modular distance learning

In recent years, several academic publications about study habits have been produced and published. But it is important to consider the impact of the pandemic on study habits ^[10]. Students who opted for modular distance learning have very satisfactory study habits and generally good academic results ^[11]. Students enrolled in distance education have developed certain study habits, such as reading while feeling drowsy, being unable to study for at least three hours every day, not searching the internet for additional resources, and not reviewing their notes before their upcoming in-person meetings ^[5]. In addition, parents are

not very good at giving their children access to remote learning resources. The parents' income decreased as a result of remaining at home to care for the kids. Learning at home is difficult when homes are closed, especially for kids with poor motivation, as parents may be extremely concerned about their financial future^[11]. In contrast to the study on parents' involvement, which found that parents give their child encouraging words and positive reinforcement as well as help them understand concepts and lessons through examples and elaborations, the respondents found it difficult to explain lessons to their children and doubted their ability to take on the role of a teacher. This therefore confirms the study's findings that parents' inadequate formal education hinders and causes hesitations for any academic activities and school agenda items requiring a particular degree of knowledge or skill ^[12].

3.2. Study habits during modular distance learning and their impact on academic achievement

There is a strong correlation between good study habits and academic achievement. To improve their performance, students need to pay close attention to their study habits ^[13]. Academic achievement and study habits have a direct and significant correlation ^[13]. Study habits are the most significant predictor of academic achievement, and research from around the world has shown that they have an impact on academic achievement ^[14]. During modular distance learning, students may experience issues with their home environment, particularly with family members and internet connectivity. These issues could have a negative impact on their academic achievement during a crisis^[15].

4. Methodology

4.1. Population and sampling design

The study used purposive sampling to select 260 learners from two central elementary schools within the city who opted for modular distance learning.

4.2. Instrument

This study had adapted a questionnaire. The questionnaire checklist was adapted and modified from the instrument developed by Angkarini ^[16]. Part I includes personal information about the respondent. Part II determines the study habits during modular distance learning. The class advisor calculates the cumulative grade point average, which is derived from the respondents' report cards. Since the instrument was modified, the researcher decided to subject it to reliability testing (n=130), and the questionnaire's Cronbach's Alpha coefficient returned as 0.827.

4.3. Data gathering procedure

In order to ensure that this study follows the Data Privacy Act of 2012, a letter was sent to the Division School Superintendent to proceed with the study. All participants were given the opportunity to ask questions to clarify and were asked if they understood the instructions. Ethical standards were maintained throughout the duration of the study. The study's objectives were explicitly disclosed to the participants, who were also reassured that their data would be kept completely confidential. Throughout the entire process, there was no risk of physical harm to the participants.

4.4. Data analysis

The collected data were analyzed using frequency distribution, percentage, and mean for all descriptive results. The Pearson Product Moment Correlation Coefficient was used to establish a significant relationship between study habits and academic achievement in modular distance learning. To calculate the mean, the researcher used a point system on the Likert scale, where 1 represents 'never performed' and 5 represents '

always performed'. The means for each category (i.e., time management in studying modules, reading modules and other electronic references, memorizing lessons from the modules, and taking notes while reading the modules) were added together and divided by the total number of participants.

5. Results

Question 1: What is the demographic profile of the participants?

In **Table 1**, 260 participants responded to the survey. These responses were divided into several groups based on the family's monthly income, the number of members in a family, and tutors during modular learning.

Table 1. Profile of the participants.

Demographics		n	%
Number of family members	1-3 members:	153	58.85
	4-6 members	82	31.54
	7-9 members	22	8.46
	10 or more members	3	1.15
Tutors during modular learning	Mother	100	38.46
	Father	35	13.46
	Older Brother	11	4.23
	Older Sister	90	34.61
	Relatives	15	5.76
	Hired Tutor	9	3.46

On the number of family members, 153 (58.85%) respondents belonged to a family with 1-3 members, while 82 (31.54%) belonged to a family with 4-6 members. 8.46% respondents reported having a family with 7-9 members, and 3 (1.15%) respondents belonged to a family with 10 or more members.

Regarding tutors for learners during modular distance learning, 100 (38.46%) were tutored by their mother, 35 (13.46%) by their father, 11 (4.23%) by their older brother, 90 (34.61%) by their older sister, 15 (5.76%) by their relatives, and 9 (3.46%) were tutored by a hired tutor.

Question 2: What is the academic achievement of the respondents during modular distance learning?

Table 2 presents the academic achievement of the respondents in terms of Cumulative Grade Point Average. There were 11 (4%) respondents who belonged to a cumulative grade point average bracket of 90-100 with a description of “Outstanding”. 154(59%) of the respondents received a cumulative grade point average between the brackets of 85-89, which is considered “Very Satisfactory”. 75 (29%) respondents received a cumulative grade point average between 80-84 which is “Satisfactory”, and 18 (7%) respondents received a cumulative grade point average bracket between 75-79, which is “Fairly Satisfactory”.

Table 2. The academic achievement of the respondents in terms of Cumulative Grade Point Average.

Grading Scale	Frequency	Percentage	Mean	Description
90-100	11	4	93	Outstanding
85-89	154	59	87	Very Satisfactory
80-84	75	29	83	Satisfactory
75-79	18	7	78	Fairly Satisfactory

(The basis for computation is the Department of Education Order No. 8 s. 2015.)

Question 3: What are the study habits of the respondents during modular distance learning?

Table 3 presents the various study habits of the respondents during modular distance learning. Time management in studying modules received a mean score of 3.48, indicating that the task was often performed by the respondents. Reading modules and other electronic references received a mean score of 3.38, indicating that respondents frequently performed this task. Respondents often memorized lessons in the module, with a mean score of 3.44. Occasionally, they took notes while reading the module and other electronic references, with a mean score of 3.30.

Table 3. Study habits of the homeschooling respondents.

Category	Interpretation	Mean
Time Management in Studying Modules	3.48	Often performed
Reading Modules and other Electronic References	3.38	Occasionally performed
Memorizing Lessons in the Module	3.44	Often performed
Taking Notes While Reading the Module and Other Electronic References	3.30	Occasionally performed

Range: 4.21-5.00 (Always performed); 3.41-4.20 (Often performed); 2.61-3.40 (Occasionally performed); 1.81-2.60 (Rarely performed); 1.0-1.80 (Never performed)

Question 4: Is there a significant relationship between the study habits and academic achievement of the respondents during modular distance learning?

Table 4 presents tests for a significant relationship between study habits and academic achievement of the respondents during modular distance learning. The relationship between the two variables was tested using the Pearson Product Moment Correlation Coefficient. As shown in the table, the computed *r* yielded 0.370 with a *p*-value of 0.000, which is less than the 0.05 level of significance. Thus, the hypothesis of no significant relationship is rejected since there is a slightly positive relationship between study habits and academic achievement during modular distance learning.

Table 4. Test of the significant relationship between study habits and academic achievement of the respondents.

Variables	Computed <i>r</i>	<i>p</i> -value	Description
Study Habits			
Vs.	0.370	0.000	Slightly positive relationship
Academic Achievement			

ns = not significant, "*" indicates significance at 0.05.

6. Discussion

In the demographics section, two variables are being studied: number of family members, and tutors.

Most of the respondents have 1-3 members in their families, with the mother serving as a tutor during modular distance learning. The research highlights that mothers serves as a child's first and most important teachers. From childhood through adolescence, parents remain at the center of their child's education, although they may encounter problems during tutorials. Parents who choose to teach their children at home may encounter a range of problems, such as a lack of understanding of the material, difficulty in keeping the

child motivated, a lack of patience, and limited internet access ^[21]. Mothers and fathers play important roles in a family, from taking care of household tasks to loving and teaching children. Despite the fact that both parents are responsible for these responsibilities, moms typically take on a more prominent role in their children's educational experiences. In addition to meeting their children's bodily requirements, mothers are responsible for the development of their children's moral characteristics and education ^[22]. According to what was claimed, the women's sector is the most impacted persons during the pandemic, which will subsequently have an effect on their academic standing. In the Philippines, the major role of a father is to provide for his family and make certain that they are able to lead a life that is comfortable. Therefore, in order to meet the requirements of their families, fathers look for career opportunities. Families in the Philippines have seen a transformation as a consequence of migration and globalization, which has led to a shift in the traditional norms that govern families. As a consequence of this, there has been an increase in the number of men who choose to remain at home with their children, with mothers increasingly being the primary breadwinners and fathers taking on the role of primary foster parents ^[23]. Additionally, parents tend to had a hard time teaching their children for the reason that they found it difficult to perceived themselves as teachers during distance learning as they are more concerned with financial hence, making their children feel unmotivated ^[12,13]

Regarding study habits during modular distance learning, time management for studying and memorizing lessons in the module was often performed, while study habits for reading and memorizing lessons in the module were only occasionally practiced. However, the respondents achieved very satisfactory academic performance. Therefore, study habits during modular distance learning are slightly related to academic achievement. However, there is a strong correlation between students' study habits and their academic performance ^[24]. This suggests that students can improve their academic performance only when they imbibe or cultivate proper study habits without good study habits, a learner cannot succeed ^[25]. A learner's level of study greatly determined by their academic achievement. There is a slightly positive correlation between study habits and academic achievement ^[12]. Furthermore, a study discovered significant correlations between learners' learning styles, study habits, and academic performance in applied science courses ^[20].

Prior to the COVID 19 pandemic, learners performed worse in reading, arithmetic, and science than students in the majority of nations and economies that took part in PISA 2018. Hence, opting them to attend some tutor sessions but when the pandemic came, tutor sessions raise their rates and some clients stop availing services ^[11] Among all Program for International Student Assessment (PISA)-participating nations and economies, the Philippines has one of the highest percentages of low performers, with more than 80% of learners not meeting a minimal reading competence level ^[6].The findings of this survey lead to the conclusion that the grade six learners' academic achievement was satisfactory ^[26]. However, academic achievement in modular distance learning was very satisfactory.

7. Conclusion

The participation of students in the teaching and learning activities of educational institutions should continue even in the face of natural catastrophes and other calamities. It is possible for students to continue their education in a variety of different ways, and one of those ways is through the utilization of modular remote learning technology. The role that parents, and particularly women, play is extremely important because they are the ones who are responsible for giving their children with tutoring and monitoring their academic development. The education of their children is a responsibility that falls squarely on the shoulders of mothers. A change has occurred in the dynamic of families in the Philippines as a result of the outbreak. There has been a considerable increase in the number of fathers who opt to stay at home with their children,

despite the fact that the fundamental job of a father is to provide for his family by working in order to fulfill their needs. As a consequence of this, mothers have become the primary breadwinners, while fathers have become the primary caregivers for their children. Because modular learning has led to the creation of new requirements, both mothers and fathers play major responsibilities in the family, including the management of domestic activities and the nurturing and education of their children. This is because of the fact that modular learning has resulted in changes. At the moment, the participants are heavily engaged in activities that are economically related. The impact that the epidemic has had on their income and the activities they engage in economically has increased their level of anxiety. The loss of money has had a domino effect on many parts of their lives, including the provision of their fundamental necessities, the education of their children and themselves, and the costs associated with medical treatment. Furthermore, parents who are participating in distant learning should not only be motivated, but they should also recognize their roles as the key drivers of learning and information during the pandemic. They should pay more attention to the necessities of their children, particularly during the implementation of remote learning, because the learners require more direction throughout the process.

8. Suggestions

It is important that teachers receive training that will assist them improve their skills in relation to information and communication technology (ICT) competencies. This will enable them to be more equipped to execute remote learning. The universities and institutes that offer teacher education programs ought to develop a tutorial program that prepares fathers and mothers to educate their children. This is especially important during the modular remote learning period. On the other hand, when modular distance learning is in place, parents have the opportunity to take part in online tutorials that are geared to suit the educational requirements of their children during the pandemic. Establishing a curriculum that places a priority on information and communication technology (ICT) competences can assist teacher education institutes in developing a variety of remote learning and instructing methods. It is the responsibility of educational institutions to offer psychosocial and pedagogical assistance to teachers and families during times of similar circumstances. The future researchers can look for a wider scope of the variables involved. They can include the grades, and interest of the respondents as their demographic profile to further had an understanding of the relationship. The college students, and high school can be also one of the respondents in this study.

Conflict of interest

The author declares no conflicts of interest.

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