



Descriptive Analysis of Socio-Demographic Profile, Family Structure, and Parental Involvement During the Modular Distance Education on the Student's Academic Achievement in Science

**Jermae B. Dizon LPT^{a*}, Ma. Elizabeth C. Leoveras Ph.D^b, Eden S. David Ph.D^c,
Rhodora I. Dela Rosa Ph.D^d**

^{a,d}College of Education, Central Luzon State University, Muñoz, 3119, Nueva Ecija, Philippines

^{b,c}College of Science, Central Luzon State University, Muñoz, 3119, Nueva Ecija, Philippines

^aEmail: dizon.jermae@clsu2.edu.ph, ^bEmail: mariaelizabeth.leoveras@clsu2.edu.ph,

^cEmail: eden.david@clsu2.edu.ph, ^dEmail: ridelarosa@clsu.edu.ph

Abstract

Following the descriptive research design, the study focused on describing the distribution of respondents according to the student's and parent's socio-demographic profile, their Family Structure, Parental Involvement, as well as their academic achievement in science during the implementation of modular distance education at Bugallon Integrated School S.Y. 2021-2022. For the respondents' socio-demographic profile, results showed that most are female, with only one available device at home that could be used for learning and have available internet usage. For the parents' socio-demographic profile, most of the respondents has only one parent who is working with income of P10, 000 or below. Majority of the respondents have a father and a mother whose highest Educational Attainment is secondary education. Most of them are 4Ps beneficiary. For the Family Structure, most of the respondents live with both parents. For students who are in a single-parent household, majority of them has only one financial support. Also, most of the respondents tied with two (2) and three (3) learners in a household. For Family and Parental Involvement, majority of the respondents have one (1) household member that can provide instructional support and most of them have 1 -2 hours of parental support each day.

* Corresponding author.

The most common form of parental involvement based on the mean responses is retrieving the student's module in school (\bar{x} = 3.44, SD = 0.88). As for their Academic achievement in Science manifested through their grade, majority of the respondents have a grade range of 85 – 89 with an equivalent of Very Satisfactory.

Keywords: modular distance learning; pandemic; socio-demographic profile; family structure; parental involvement; academic achievement in science.

1. Introduction

The Philippine government puts premium on students' accomplishment in public schools. No Child Left Behind (NCLB) is a law that was passed in 2010 that requires public schools to have all pupils achieve proficiency on state exams by the year 2014. Teachers and administrators in public schools around the nation now feel a feeling of urgency as a result of this. The outcome component of student accomplishment has been the subject of much discussion and debate as a result of this law. The relationship between a student's socioeconomic background and academic performance is one of the topics that educators argue about the most. One common claim is that a student's socioeconomic position has a significant impact on his or her academic achievement. Meeting the state's requirements for test scores is seen by many school districts with a significant proportion of low socioeconomic pupils as being impossible [1]. Over the past few decades, studies on family structure have increased; these studies specifically examined living plan designs and their recommendations for the welfare of children [2]. However, teenagers who do not live in families with two biological parents typically perform worse than those who do. Children in intact parent homes and single-parent families show only mild developmental changes. These living arrangements influence a few aspects of a child's performance, such as their mental, behavioral, physical, and emotional health [3, 4]. Concerns about the impact of a child's home arrangement on their academic performance have changed over time. The family structure is an important indicator of a child's happiness and academic achievement. It selects the flow of time and money [5]. Focus points commonly attributed to essential family structures are higher academic achievement, less behavioral problems, and better health outcomes. Whatever the case, it is unclear which aspects of the family structure and parental involvement have an impact on a child's capacity for learning. A review of the World Family Map [6] suggests that additional research be done to cover other family-related issues. This study is limited on a descriptive analysis of the socio-demographic characteristics of grade 7 students and their parents, as well as their family structure and parental involvement during the Modular Distance Learning in Bugallon Integrated School S.Y. 2021-2022.

1.1. Statement of the Problem

In the Philippines, no study has taken into account all of these influences on secondary education. Due to the lack of research on socio economic factors, family structure, and parental involvement during the Modular Distance Education program that was launched during the COVID19 pandemic where these factors are magnified to a whole degree because of the absence or limited teacher-student interaction and more on the presence of the parents or guardians and their resources to determine their academic success especially in their science subject.

1.2. Research Objectives

In light of that context, it is the aim of this research study to:

- describe the respondents' socio-demographic characteristics in terms of age, gender, device available at home, and internet usage;
- describe their parents' socio-demographic profile which includes number of parents working, parental income, father's educational attainment, mother's educational attainment, and 4Ps beneficiary;
- (3) describe the respondents' family structure [i.e., Two parent family/ Single parent (Either single mother or single father household) / Co-parenting or Joint physical custody/ Adaptive parents/ living with Neither parent family such as those whose Parent are working overseas/OFW parents, Deceased parents, Parents who work far away locally and those with other reasons], the financial support of single household and the number of learners in a household;
- describe the Parental Involvement in the respondents which includes the Number of household members that can provide instructional support, Number of hours of parental support, and the Parental Involvement Rating Scale; and
- describe the student's academic achievement in science.

2. Methodology

2.1. Study Sites

This study was conducted at Bugallon Integrated School (BIS), formerly known as Bugallon I Central School. It is a public school founded in 2000 that provides curriculum-based quality education in the community. BIS is a monograde elementary and high school managed by the Department of Education (DepEd). It is located in Espino St. Poblacion, Bugallon, Pangasinan and a part of the School Division Office 1 Pangasinan. BIS is headed by Sir Fernando P. Espinoza, Principal II. The school currently offers both elementary and high school, both junior and senior high school program.

2.2. Respondents and Data Collection

This study involved 146 Grade 7 junior high school students during the Academic Year 2021-2022 where the Modular Distance Education was implemented by the Department of Education amid the COVID 19 pandemic. Most of the respondents were 12-13 years old.

Purposive sampling was used in the study. Purposive sampling is one of several types of nonprobability sampling methods. Purposive sampling procedures are drawn from a deliberate selection of participants as based on criterion established by the researcher [7].

2.3. Instrumentation

The instrument used was adapted questionnaire from the existing literatures and studies which includes the (1) student's and parent's socio-demographic profile, (2) their family structure, as well as (3) parental involvement.

I. Socio Demographic Profile

The first part of the instrument focused on the demographic profile of the student and the parents. For the student's socio-demographic profile, it includes their gender, device available at home, and availability of internet usage. For the parent's socio-demographic profile, it includes the number of parents working, parental income, parent's educational attainment, and if they are beneficiaries of 4P's.

II. Family Structure

The second part focused on whether the students live in a two-parent household, single-parent household (mother or father), co-parenting or joint physical custody, adoptive parents, or neither parent (i.e., grandparent, aunt/ uncle, cousin, etc.), under which is categorized whether parent are working overseas/OFW parents, deceased parents, parents work far away locally, and other reasons.

III. Parental Involvement

The third part of the questionnaire aims to know how often the parents or guardians regulate, encourage or motivate their children in learning and how they assist in the students' education during the Modular Distance Learning. The main research instrument used in this study is the Student Survey Questionnaire which is adapted from the study of Francess Dufie Azumah [8].

Some of the pinning questions in this part consist of number of household members that can provide instructional support, number of hours of parental support in student education per day, frequency of module retrieval, frequency of parents' inquiry on the students' performance, frequency of parents' encouragement on students to accomplish their performance tasks, frequency of monitoring the students' leisure activities and decision making.

2.4. Data Analysis

After the data collection, responses were analyzed by descriptive and inferential analyses using Statistical Package for Social Sciences (SPSS) and MS Excel Worksheet to make the computations easier in treating the data collected. The raw data were analyzed using descriptive statistics such as frequency counts, percentages, and means to describe the students' and parent's socio-demographic characteristics, family structure, parental involvement, and the student's academic achievement in science.

3. Results and Discussion

3.1. Socio-demographic Characteristics (Profile of the Students)

Presented in Table 1 are the student's socio-demographic profile in terms of gender, number of available devices, and internet usage.

Table 1: Profile of the students.

PARAMETERS	FREQUENCY n = 146	PERCENTAGE %
Gender		
Male	57	39.00
Female	89	61.00
Number of Devices Available		
1	79	54.10
2	34	23.30
3	25	17.10
4	5	3.40
≥ 5	3	2.10
	Mean = 1.77 ~ 2	
	SD = 1.04	
Internet Usage		
No	38	26.00
Yes	108	74.00

3.1.1. Gender

Table 1 shows that there were more female respondents (89 or 61 %) than male respondents (57 or 39%).

The result where there were more female than male students in Bugallon Integrated school could be attributed to the fact that compared to females, males tend to stop attending school or they drop out of school more often to help their parents make a living. In a study of 650 students at Sussex University, Woodfield and colleagues [9] discovered that girls (88%) had much higher-class attendance than boys. It was significantly higher than that of the males (84%). This study shows that females are likely to attend class more frequently than males. In addition to that, the result corroborates with the 2013 Philippine Statistics Authority (PSA) that there were more males who were out of school, due to lack of personal interest and insufficient family income [10]. Furthermore, according to research conducted by the Philippine Statistics Authority (PSA) in 2000, there were 101 male babies born for every 100 female newborns. The PSA performed another study in 2010 that looked at the sex preferences of college graduates. In their analysis, 56% of graduates are women and 44% of graduates are men. An annual assessment that assesses gender equality in 153 nations finds that Filipino women enroll in high school and college at much higher rates than men [11]. In addition to that, according to the World Economic Forum's (WEF) 2020 Global Gender Gap Report, 71.3 percent of women are engaged in secondary education, but only 60.2 percent and 40.4 percent of men are doing the same. This is also supported by the Philippine Statistics Office's finding that women outnumbered men (56.1%) among those with college or academic degrees who were surveyed (43.9 percent). Similarly, among those who had taken post-baccalaureate courses, there were more females (58.0%) than males (42.0%) [12].

3.1.2. Device Available

Majority of the students (79 or 54.10%) have only one device available at home. It has a mean = 1.77 ~ 2, and SD = 1.04. There are 34 students (23.30%) who have two devices available at home, 25 students (17.10%) have three devices available at home, five (3.40%) have five devices, and three (2.10%) have more than five devices

available at home. Bugallon is a second-class municipality with a poverty incidence of only 15.28% during a PSA survey in 2018. Most residents in this municipality are capable of buying a smartphone for daily use and other devices depending on income [13].

In a micro level of that category, majority of the students (119 or 81.5%) have cellphones available at home, which is significant to notice because it provides an additional chance to fully utilize and take advantage of its educational potential. This study has a similar finding with other literature. According to the most recent Social Weather Stations (SWS) study, 6 out of 10 Filipino students utilized devices for distant learning during the pandemic, and families that purchased devices paid about P8,000 per student. The poll, which was conducted among household heads from November 21 to 25, indicated that 58 percent of enrolled Filipinos between the ages of 5 and 20 used devices for distant learning while only 42 percent did not. According to a news report in the *Inquirer*, 79 percent of the students who purchased or leased gadgets did so for a smartphone, 13 percent for a laptop or desktop, 5 percent for a television, and 3 percent for a tablet [14]. Moreover, Essel's investigation supports the findings [15]. The group mandated that students have access to different mobile device types, particularly smartphones. Additionally, Kapasia and colleagues [16] noted in their study that the majority of their student respondents attended their online classes using an Android smartphone. Another survey suggested that students enjoy using their phones, making them one of the finest tools for educational institutions to employ [17]. These devices are still unavailable to certain students locally, though. In light of this, they are then burdened or faced with a challenge, particularly when learning. Even though only a small percentage of people own tablets, laptops, and personal computers, they can nevertheless use these tools as alternatives to cellphones for learning. With the help of these preliminary findings, the school management can now choose the best course of action for delivering sound academic instruction.

In addition to that, in this very IT-oriented world, Wrigglesworth noticed that the tendency of pupils using smartphones in class was constantly growing [18]. These results are comparable to those of Alhasanah, who discovered that students utilized mobile phones for study purposes since it had a favorable impact on their learning [19]. Due to the simplicity of accessing technical resources (websites, online materials, etc.) and the internet, Firmansyah and colleagues also showed how students were using smart phones more frequently and incorporating them into their studies [20]. Likewise, in his article Al-Daihani [21], an undergraduate student study at the University of the USA discovered that students frequently use smartphones for academic purposes, such as retrieving information from a search engine like Google, gaining access to libraries, online dictionaries, and the student portal of their respective university or college.

3.1.3. Internet Usage

Most of the respondents (108 or 74%) have available Internet Usage. Thirty-eight (38) of them or 26.00% do not have available Internet Usage. In Bugallon, Pangasinan, the Sangguniang Kabataan of Barangay Umanday introduces the "Study Konek" program, which provides students in their neighborhood with free Wi-Fi access (PNA, 2020). There are also a lot of barangays in Pangasinan that offer free wifi because of the 142 sites of the "Free WiFi (wireless fidelity) for All" that was established by the Department of Information and Communications Technology (DICT) [22]. A similar finding was from the study conducted on April 3, 2020.

The Pew Research Center published a collection of graphs on the demographics of internet access and usage around the world. According to the poll, 66% of Filipinos said they use social networking sites, 60% said they possess a smartphone, and 70% of Filipinos said they use the internet or have a smartphone. The survey's median figure for smartphone use was 67%. According to the findings of the Asio's survey [23], 70% of pupils have access to the internet at home. However, when it comes to learning tools that students can use, smartphones come in first. According to a 2002 AC Nielsen survey, the nation's Internet users are "urban, young, and sophisticated." The youngest group, those between the ages of 12 and 19, made up over half (45%) of all Internet users. The ABC or upper- and middle-income categories were found to have the most access to the Internet, according to the same survey [23].

3.2. Socio-demographic Characteristics (Profile of the Parents/Guardian)

Table 2 shows the parents' socio-demographic characteristics in terms of number of parents working, income, educational attainment, and 4P's beneficiary

Table 2: Profile of the parents/guardian.

PARAMETERS	FREQUENCY n = 146	PERCENTAGE %
Number of Parent's Working		
Both parents are not working	4	2.70
Only one parent is working	111	76.00
Both parents are working	31	21.20
Parental Income		
< 10,000	104	71.20
10,000 – 19,999	23	15.80
20,000 – 29,999	11	7.50
≥ 30,000	8	5.50
Parents Educational Attainment		
Father		
No formal schooling	4	2.70
No formal schooling but knows how to read & write	3	2.10
Attended elementary schooling	22	15.10
Attended secondary schooling	18	12.30
Graduated High School	54	37.00
Attended tertiary Schooling	45	30.80
Mother		
No formal schooling	1	0.70
No formal schooling but knows how to read & write	4	2.70
Attended elementary schooling	19	13.00
Attended secondary schooling	23	15.80
Graduated High School	58	39.70
Attended tertiary Schooling	41	28.10
4 P's Beneficiary		
No	57	39.00
Yes	89	61.00

3.2.1. Number of Parents Working

Majority of the respondents (111 or 76%) has only one parent working. Thirty-one (31 or 21.20%) have parents who are both working. Only four (4 or 2.70%) have both parents who are not working.

Most residents in the rural areas have families where only the father works which could explain why only one parent is working got the highest percentage. Pangasinan is part of the Ilocos Region where according to figures compiled by the Philippine Statistics Authority (PSA) in April 2021, the employment rate in the Ilocos Region increased from 92.5 percent to 94.1 percent where services, industry, and agriculture all have high employment rates [24].

This corroborates with the data presented by Ilocos Regional Director Lawyer Sheila de Guzman that out of the 2.5 million people who were in the labor force in April 2022, this represents around 2.3 million people aged 15 and over. At least one parent was employed in 89.1 percent of families with children in 2021, which represented 32.8 million families with children under the age of 18, an increase from 88.5 percent in 2020 but below its 2019 value of 91.4 percent. In 2021, married couples with children made up 96.5 percent of households, and in 62.3 percent of these families, both parents were employed [25]. Fathers were more likely to be employed in families supported by fathers, with an employment rate of 81.7 percent compared to 71.2 percent for mothers in households supported by mothers. In 2021, working fathers continued to be more likely to work full time than working mothers, 95.5 percent against 79.6 percent [26].

In addition to that, in 2012, 29% of mothers reported not working outside the home. The majority of respondents in the study only have “one working parent”, which appears to be caused by a combination of demographic, economic, and societal factors as well as a decline in women's labor force participation [27]. This decline in women's labor force participation is set against a background of ongoing public ambivalence about the impact of working mothers on young children.

3.2.2. Parental Income

Most respondents (104 or 71.20%) are under the income bracket of < 10,000. Twenty-three (23 or 15.80%) are under the income bracket of P10, 000 – P19, 999. Eleven (11 or 7.50%) are under the income bracket of P20, 000- P29,999, and eight (8 or 5.50%) are under the income bracket of \geq P30,000. In the 2020 census, only one barangay out of a total of 24 in Bugallon was identified as being urban, making it a mostly rural area where occupation is mostly farming and selling crops and goods. The poverty incidence in this municipality is 15.28% in 2018 where the poverty threshold is at P2,416.33 per month. Because the poverty incidence in Pangasinan is low, t parental income is greater than poverty threshold but less than P10,000 per month [13].

This confirms the 2015 PSA report that the Philippines is a third-world country with 22.2% of families living below the poverty line. More than 18,000 low-income households in Metro Manila, Nueva Ecija, Bohol, Eastern Samar, Sarangani, Bukidnon, and Sorsogon were surveyed as part of COVID-19 Pulse PH 2021 to learn about their financial circumstances during and just before the pandemic. The findings indicated that the poor in the Philippines were already experiencing financial hardship prior to the COVID-19 issue. According to the report,

90% of respondents made less than P10,000 each month. At least 63 percent of them claimed to make less than P6,000 per month [28].

3.2.3. Parent's Educational Attainment

In the survey, more than one-third of the students (54 or 37.00%) have a father who graduated high school. Forty-five (45 or 30.80%) have fathers who attended tertiary school. Twenty-two (15.10%) have a father who attended elementary schooling. Eighteen (18 or 12.3%) have fathers who attended secondary schooling. Four (4 or 2.70%) have a father who have no formal schooling. Three (2.10%) have a father who have no formal schooling but know how to read and write. In Bugallon, there are no colleges or universities for tertiary education. If someone intends to enter tertiary level, he has to go to a different municipality. There are 12 public elementary schools and three public high schools in Bugallon [29].

In the survey, most of the students (58 or 39.70%) have mothers who graduated high school, while (41 28.10%) have mothers who attended tertiary school. Twenty-three (23 or 15.80%) have mothers who attended secondary schooling. Nineteen (19 or 13%) have mothers who attended elementary schooling. Four (4 or 2.70%) have a mother who have no formal schooling but know how to read and write. Only one (0.70%) has a mother who has no formal schooling.

For the father and mother's educational attainment, most of the parents were high school graduate, they were able to complete up to the level of free education only as provided by Republic Act 6655 (Free Public Secondary Education Act of 1988). Most of them come from low-income families, and their parents were not able to send them to college. According to PSA 2013 survey report, out of school youth has entered into new union or marriage. Those parents who were not able to graduate or reach high school may belong to having lack of interest in going to school or poverty push them to stop coming to school [10].

3.2.4. 4Ps Beneficiary

Majority of the students (89 or 61.00%) are 4Ps Beneficiary, while 57 (39%) are not 4Ps Beneficiary. As of 2020, there are 4,071 members of 4Ps in Pangasinan out of 23,477 families in the municipality [30].

This study corroborates with the survey of the Department of Social Welfare and Development (DSWD) which is the primary implementing agency for the Pantawid Pamilyang Pilipino Program (4Ps). By the end of March 2022, 4,235,700 active household beneficiaries were being served by the program over 41,676 barangays nationwide [31].

3.3. Family Structure

Table 3 presents the respondents' family structure.

Table 3: Family structure of the respondents' education.

PARAMETERS	FREQUENCY n = 146	PERCENTAGE %
With whom does the student live		
Both parents	107	73.30
Single parent	17	11.60
Co-parenting or joint physical custody	8	5.50
Adoptive parents	1	0.70
Neither parent (Why?)	13	8.90
OFW parents	7	53.80
Deceased parents	0	0.00
Parents work far away locally	0	0.00
Other reason	6	46.20
Number of Financial Support for Single Household		
1	12	70.50
2	1	6.00
≥ 3	4	23.50
Number of learners in household during SY 2021-2022		
1	17	11.60
2	47	32.20
3	47	32.20
≥ 4	35	24.00
	Mean = 1.41~1	
	SD = 1.68	

3.3.1. With Whom Does the Student Live?

Most of the students (107 or 70.30%) live with both parents, 17 (11.60%) live with a Single parent. Eight (5.50%) live with co-parenting or joint physical custody, and only one lives with adoptive parents. Thirteen (8.90%) live with neither parent (i.e., grandparent, aunt/uncle, cousin, etc.). Bugallon is a municipality with 23,477 families with different family structure [30].

The nuclear family predominated as a family structure in 2002 by 62.8%. By 2012, nuclear family was no longer the modal group and the proportion of extended family structures had significantly expanded from 37.2% to 64.5% [32]. The nuclear family structure may no longer be able to provide adolescents with the proper socialization and supervision they require, even though the family is still very important in their lives.

Due to single parenting, divorce, and the rise in Filipinos working abroad, this phenomenon of shifting family structure and relationships over the past few decades has occurred [33, 34]. The proportion of teenagers being raised in single-parent households is increasing as a result of changing family structures. Only 84% of teenagers were reared in intact families, while 16% were in other types of arrangements [35].

The dominance of women in the population is also evident in the percentage of respondents who claim to have been raised by their mother alone (6.4%) or by her and another person (1.7%) as opposed to those who claim to have been raised by their father alone (1.4%) or by their father and another person (0.5 percent). Even while

intact families will still predominate, a sizable fraction of other family types suggests that an increasing number of our children won't be raised under the supervision of both parents [35].

3.3.2. Financial Support of Single Household

For students who are in a single-parent household, 12 (70.50%) have “only 1” financial support, one has two financial supports, and four (23.50%) have three or more financial support.

Most single parents in Bugallon, are working parents to provide for their family. In Bugallon, there are government benefits for solo parents such as the Solo Parents' Welfare Act of 2000 protects the rights of single parents in the Philippines and makes sure that the government is providing them with sufficient social safety services [36]. This is why many single-parents can financially support themselves and their family as a sole provider.

This study has a similar finding which discovered that the single parents experienced significant economic implications. The majority of single parents supported their families solely via their own income and only entered the workforce after their spouses left. Their financial situation was dire, and many of them felt the need to work [37]. This is also in line with the study of Stack who described single parents as having Lone Financial Responsibility [38]. The parent who accepted main parental responsibility for the children was assumed to be the parent bearing the most of the financial load. Being dependent on others and not having enough money to raise their children were described as stressful and distressing. Participants established a scenario in which they were in a constant struggle with money and had to fight for everything, portraying themselves as stuck and helpless. In response to the ongoing concern about supporting a child as a single person, participants experienced a variety of emotions, including feeling dissatisfied and stressed. These emotions and pressures persisted throughout time and were made worse by unforeseen life events [38].

3.3.3. Number of learners in a household during school year 2021-2022

Majority of the students tied with two and three learners in a household with 47 respondents or 32.20% each. Thirty-five (24%) have four or more learners in a household, while 17 (11.60%) have only one learner in the household. The mean is 1.41~1 and the SD is 1.68.

Women who resided in rural areas had a somewhat higher total fertility rate (TFR) of 2.2 children per woman than women who resided in urban areas, who had a TFR of 1.7 children per woman [39]. In Bugallon, when age categories are combined, individuals under the age of 14 represent 34.38% or 23, 155 represents the young dependent population, which includes children, and young adolescents/teenagers of schooling years (PhilAtlas, 2022). This is why many families in Bugallon have two and three learners in a household.

This is in line with the number of learners in a household which is equivalent to number of children that are enrolled in school per household. In 2010, Southeast Asia had a fertility rate of about 2.4 (PRB, 2010). In the Philippines, women give birth to 3.3 kids on average. In rural areas, there are 3.8 children per woman on average, compared to 2.8 in urban areas [40].

According to the National Demographic and Health Survey from 2013, given the current age-specific fertility rates in that year, every woman of reproductive age (15-49) has around three children during the course of her childbearing years [41]. The total fertility rate (TFR) of Filipino women aged 15 to 49 decreased from 2.7 children per woman in 2017 to 1.9 children per woman in 2022, according to the preliminary findings of the 2022 National Demographic and Health Survey (NDHS). As a result, the Philippines' fertility rate is currently below the replacement threshold of 2.1 children per woman. Women who resided in rural areas had a somewhat higher TFR of 2.2 children per woman than women who resided in urban areas, who had a TFR of 1.7 children per woman [39].

3.4. Parental Involvement

Table 4 presents the data gathered for family involvement (i.e., number of household members that can provide instructional support; number of hours of parental support in student education per day) and Table 5 shows the data gathered for Parental Involvement. Descriptive statistics such as frequency counts and percentages were calculated.

Table 4: Family involvement in the respondents' education.

PARAMETERS	FREQUENCY n = 146	PERCENTAGE %
Number of household members that can provide instructional support		
0	35	24.00
1	46	31.50
2	23	15.80
3	26	17.80
4	16	11.40
Mean = 1.41~1		
SD = 1.68		
Number of hours of parental support in student education per day		
1 – 2 hours	75	51.40
3 – 4 hours	31	21.20
5 – 6 hours	17	11.60
≥ 7 hours	23	15.80

3.4.1. Instructional Support

Nearly one-third (46 or 31.50%) of the respondents have one household member that can provide instructional support., while 35 (24%) have no instructional support in the household. Twenty-six (17.8%) have three instructional supports in the household. Twenty-three (15.80%) have two instructional supports in the household, while 16 (11.40%) have four or more instructional support in the household. The mean is 1.41~1 and the SD is 1.68. Even when the child is already of preschool and school age, parents still have a responsibility to educate their children from the primary level of education to the higher levels especially during the global pandemic. Rohita's study [42] shows that parents, particularly women, have performed their roles as instructors at home, particularly in the implementation of lessons that are similar to the tasks of teachers in schools, in

accordance with their knowledge and skills [42]. Most households relied on the mother to teach their children during the Modular Distance Learning that was implemented during the pandemic. The findings of Rohita demonstrated that parents educated their children at home during the pandemic by explaining COVID-19, its risks, and ways to prevent them, providing a variety of learning and play activities, corresponding with teachers to request clarification on assignments, and utilizing media and learning tools like books, television, and cell phones. However, mothers do this function more frequently than fathers [42].

3.4.2. Parental Support

For students’ parental support, majority (75 or 51.4%) have 1 -2 hours of parental support each day. Thirty-one (21.2%) have 3-4 hours of parental support each day. Seventeen (11.6%) have 5-6 hours of parental support each day hours of parental support each day, and 23 (15.8%) have 7 or more of parental support each day. According to a study conducted by Ribeiro [43] in terms of parental support, 66.9% of parents said they supported their children's education for one or more hours per day. If we convert this variable to a continuous form, we can see that, on average, parents assist their child's school activities for 1.5 hours per day. A parent's involvement lasts, on average, less than an hour when the child is deemed autonomous or when they are unable to assist. We can therefore conclude that parental participation and student autonomy are connected, with more autonomous students requiring less parental involvement time. At each educational level, we discovered that more autonomous students required at least an hour less of parental involvement on average [43].

Table 5: Parental involvement in the respondents’ education.

PARAMETERS	MEAN	SD	DESCRIPTION
1. How often did you retrieve the student’s modules in school?	3.44	0.88	Always
2. How often did you enquire the teachers about the student’s performance in their modules?	2.50	0.83	Sometimes
3. How often did you encouraged the student to do their performance task?	3.11	0.90	Often
4. How often did you monitor the student’s television watching habit and playing games?	2.84	0.89	Often
5. How often did you involve the student in decision making regarding their education?	3.07	0.82	Often
6. How often did you discuss the importance of education with the student?	3.40	0.80	Always
Pooled Mean	3.06	0.85	Often

Legend:

- 1.00 – 1.75 Not at all
- 1.76 – 2.50 Sometimes
- 2.51 – 3.25 Often
- 3.26 – 4.00 Always

The main variables deliberated upon in the table included: retrieving the student's modules in school; enquiring the teachers about the student's performance in their modules; encouraging the student to do their performance task; monitoring the student's television watching habit and playing games; involving the student in decision making regarding their education; and discussing the importance of education with the student.

With regard to retrieving the student's modules in school, it was revealed that most of the parent/s "always" retrieve them with a mean response of the variable which is 3.44. In terms of enquiring the teachers about the student's performance in their modules, the table showed that their parent/s "Sometimes" do this, with a mean response of the variable is 2.50. With encouraging the student to do their performance task, it was revealed that parent/s often encourage the student, with a mean response of the variable that is 3.11. With regard to monitoring the student's television watching habit and playing games, it was revealed that their parent/s "Often" monitor their television watching habit and playing games with a mean response of 2.84. It was established that their parent/s "Often" include the respondents in decision making regarding their education, with a mean response of the variable is 3.07. With regard to parental discussion on the importance of education with their children, it was established that their parent/s "Always" discuss the importance of education to them, with a mean response of the variable is 3.40.

The following is arranged from what happens most frequently (always) to rarely (sometimes): (1) retrieving the student's modules in school; (2) discussing the importance of education with the student; (3) encouraging the student to do their performance task; (4) involving the student in decision making regarding their education; (5) monitoring the student's television watching habit and playing games; and (6) enquiring the teachers about the student's performance in their modules.

In the Table 5, the most common form of parental involvement based on the mean responses is retrieving the student's module in school (\bar{x} = 3.44, SD = 0.88). The primary instructional resource for learners participating in this sort of modular distance learning is self-learning modules.

These self-study modules function as a learning package that includes a pre-test, a lecture, and a number of evaluations and assessments [44]. So, in order for the students to pass that modality, it is very vital for the parents or guardian to retrieve the modules at school.

It was considered as the bare minimum of parental involvement during the time of the pandemic for the students to learn and pass their subjects that academic year. Meanwhile, the one that got the lowest mean is enquiring the teachers about the student's performance in their modules (\bar{x} = 2.50, SD = 0.83). In the literature, when resolving issues that arise at school, having a positive relationship with the child's teacher and the school is a fantastic place to start. By getting to know their child's teacher as soon as possible, parents may create the foundation for a positive parent-teacher connection. Their ability to work effectively together when there is a problem is aided by open communication and developing relationships with their child's instructor [45].

However not all parents, inquire the teacher about their child's progress either because they are busy, shy, or does not care enough to ask.

3.5. Academic achievement in Science

Table 6 summarizes the students' academic achievement in science.

Table 6: Academic achievement in Science.

PARAMETERS	FREQUENCY n = 146	PERCENTAGE %
Grade in Science		
90 – 100 (Outstanding)	40	27.40
85 – 89 (Very Satisfactory)	55	37.67
80 – 84 (Satisfactory)	42	28.77
75 – 79 (Fairly Satisfactory)	9	6.16
< 75 (Did not meet expectations)	0	0.00
	Mean = 87.58	
	SD = 5.05	

As shown in the table, more than one-third (55 or 37.67%) has a grade range of 85 – 89 described as Very Satisfactory. Forty (27.40%) have a grade range of 90 – 100 with an equivalent of Outstanding. Forty-two (28.77%) have a grade range of 80 – 84 with an equivalent of Satisfactory, while nine (6.16%) have a grade range of 75 – 79 described as “did not meet expectations”. The mean grade of the respondent in science 7 is 87.58 with a SD of 5.05.

Most of the respondents have a grade of 85-89 which could be attributed to their socio-demographic characteristics such as availability of devices and internet at home to help them answer their modules during the pandemic. And because majority of the students have only one parent who is working, the other parent can provide instructional support for the child. The grade range is categorized based on DepEd Order no.31 s.2020 or the Interim Guidelines for Assessment and Grading in light of the Basic Education Learning Continuity Plan [46].

4. Conclusion

Results showed that most of the respondents are female with only one available device at home that could be used for learning and most of them have available internet usage. For the parent's socio-demographic profile, most of the respondents have only one parent working with income of P10, 000 or below. Majority of the students have a father and a mother whose highest educational attainment is highschool graduate. Most of the respondents belong to families that are 4Ps beneficiary. For the family Structure, most of the students live with both parents. For students who are in a single-parent household, majority of them receive only one financial support. Also, most of the students tied with two and three learners in a household. For Family and Parental Involvement, many of the students have one household member that can provide instructional support and most of them have 1 -2 hours of parental support each day. The most common form of parental involvement based on the mean responses is retrieving the student's module in school. As for their academic achievement in Science determined through their grade, majority of the students have a grade range of 85 – 89, equivalent to Very Satisfactory.

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