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### IMPACT OF HOME ENVIRONMENT ON ACADEMIC PERFORMANCE OF STUDENTS IN PHILIPPINES

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### ABSTRACT

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The study examined how family environment influences Grade 10 students' academic achievement at Sto. Nino National High School. Using a descriptive research approach and survey questionnaire, data was collected from 100 students during the 2021-2022 school year. Findings showed that students generally performed well academically. Key findings include: most students come from large families with low parental income, both parents are college graduates, and they have a nuclear family with access to TV and videos at home. Factors significantly linked to academic performance were parents' economic position, father's educational achievement, and availability of learning resources. Family size, mother's education, family structure, home conditions, and domestic duties had no impact. Recommendations include parental involvement, teacher support, and further research on home environment's role in student performance.

Keywords: Home environment, academic performance, descriptive research, grade 10 students

### INTRODUCTION

Students live with their parents or guardians in their houses. It is the time when the child begins to develop physically, intellectually, emotionally, and socially. The home has an influence on students at the most inconvenient moments. As a result, their home and the people who reside there have a big impact on their happiness. The family is a social unit in any civilisation that gives early stimulation and experience to children (Collins, 2007).

Students live with their parents or guardians in their houses. It is the aggregate of all internal and external factors impacting the life, development, and wellbeing of organisms, according to G.U.A nene (2005). She further noted that the environment might be classified as physical, social, or abstract. The physical environment includes things or materials found at home, school, or in the community. It also encompasses the individuals, siblings, and classmates. The social environment, on the other hand, comprises the individual's social life, societies, and clubs. The abstract environment consists of the reactions, feedback, and replies obtained as a result of interactions with others.

However, student academic achievement is a critical component of education and is seen as the pivot around which the whole educational system revolves. It essentially assesses how effectively pupils have understood a subject or course. It is also the degree to which a student, instructor, or institution has met educational objectives. According Narad and Abdullah (2016), academic to performance is the information learned that is judged by a teacher through marks and/or educational goals set by instructors with students to be reached over a specified period of time. They further stated that these objectives are measured by continual evaluation or examination results.

The atmosphere and academic achievement are mutually beneficial. The home environment serves as a foundation for learning and is an aspect of student life that might influence grades. Students' academic achievement at school is affected by a variety of conditions in their homes. According to

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Obeta (2014), home environmental elements such as the supply of suitable educational resources, parental monitoring of students' work at home, and love and caring in the student's family can improve students' academic performance. But, if pupils are not encouraged by their families, their academic progress would fail. Poor academic motivation has been linked to a number of negative outcomes, including school retention and dropout, as well as lower school involvement (Gottfried et al., 2008). Unstable, loud, and chaotic home situations are harmful to children's health and development (Dush et al., 2013 & Evans, 2003). As a result, whether good or poor, the family environment plays a significant influence in the lives of every individual. Moreover, Mushtaq and Khan (2012) claimed that communication. learning facilities. effective guidance, and family stress are variables influencing student success.

Today's new normal is a watershed moment for children at home. How parents react to changes in their family will have a long-term impact on their children's lives. Because of the various changes brought about by the epidemic, and since no one was prepared, most educators would characterize going into combat unarmed and prepared to lose. Nonetheless, the Department of Education (DepEd) has maintained that "Learning must continue," and that many learning modalities have been researched and investigated to ensure that each would be the greatest fit for students' requirements and interests in continuous learning. This is new to everyone, especially parents, who will play an important role in the new regular setup. Learning will be brought to the children' homes, and parents will play the role of instructors in certain ways. Parents were confronted with the new difficulty of being both parents and instructors.

In the new normal settings, parents and other caregivers must have a larger part in their child's learning development than they did in the past. More so since most education is increasingly taking place at home rather than on school grounds, without the visible presence of teachers (Varkey Foundation, 2018). According to the results of Azubuike and Aina (2020), parents have obstacles in their abilities to accept responsibilities as instructors for their children. Their expertise, educational experience, and socioeconomic level all influence whether and to what degree their children can study remotely. Inequality in student educational results will emerge from unequal access to distant learning possibilities. Given the foregoing insights, the researchers believe that these problems can be addressed among the Grade 10 students of Sto. Niño National High School because they are attending classes at home due to the pandemic. Hence, this study find out the effects of home environment on the academic performance of these students during the new normal set up.

### LITERATURE REVIEW

### **Concept of Home Environment**

For over fifty years, researchers have diligently examined the role of the home environment in early development. A growing consensus suggests that the home setting significantly influences children's growth, learning, and academic success (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Morrison & Cooney, 2001). The term "home environment" encompasses a child's familial context, encompassing the people and material resources within the household that shape the child's experiences. As the first institution a child encounters, the home serves as the foundation for early education and socialization (Anonymous, 2019). According to Nwachukwu and Agulaana (2002), the family unit represents the most fundamental institution for a child's socialization. Within this familial setting, a child's experiences profoundly influence their development across physical, cognitive, and psychological domains.

The presence of a nurturing and supportive family environment, characterized by encouragement of competence and adaptive behaviors, is crucial for adolescent well-being. This supportive environment entails appropriate structure, parental warmth and effective disciplinary sensitivity, practices. supervision, access to stimulating materials and educational opportunities, as well as adequate nutritional provision (R.H. Bradley & K. Kao, 2011). The home environment includes parents' emotional warmth while engaging with their children, the provision of exciting and learning activities in the house, and physical surrounds such as play area safety and cleanliness (Leventha & Brooks-Gunn 2001).

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Children's surroundings have a huge impact on their well-being. A healthy, safe home is essential for a child to grow, learn and explore. According to the National Center for Healthy Housing, a healthy home is housing that is designed, constructed, maintained, and rehabilitated in a manner that is conducive to good occupant health. However, a problematic home environment, by contrast, can have detrimental effects on a child's intellectual, social and emotional development. Research has shown that a negative home environment during the early years of life can lead to impaired development, including poor language skills, behavioral problems and deficits in school readiness based on the study conducted by Ngorosho (2011), it views the home environment as the immediate social environment of the child and thus refers to it as the ecology of child development. Ecology of human development is defined by Bronfenbrenner (1979) defines development as "the scientific study of the progressive mutual interaction between an active growing human being and the changing features of the immediate surroundings in which the developing person lives." This process of development is shaped by the dynamic relationships between different settings and the broader contexts in which these settings are situated. Bronfenbrenner emphasizes that the developing individual is not passive but actively contributes to shaping their environment over time. Conversely, the environment also exerts influence on the individual through shared experiences with people, objects, and symbols within the environment (Sontag, 1996).

Utilizing the family environment as a social setting aligns with sociocultural theory, which posits that human development emerges from the dynamic interplay between individuals and their social and cultural surroundings. According to Vygotsky (1986), a child's learning is intricately tied to social interactions occurring within their environment, particularly through language use and engagement in various social tasks (Vygotsky, 1978).

Both the ecological theory of human development and sociocultural theory emphasize three key elements pertinent to child development. Firstly, they situate the child within their social environment, emphasizing the environment's crucial role in shaping development. Secondly, they recognize the significance of the child's environment in developmental processes. Lastly, they view the child as an active participant who not only influences but also is influenced by their environment, highlighting the reciprocal nature of their relationship.

The thesis conceptualizes the home environment as a microsystem drawing from the core tenets of both theories (Bronfenbrenner, 1979). In Bronfenbrenner's framework. microsystem a encompasses the patterns of activities, roles, and interpersonal connections experienced by an individual within a specific physical and material context. Thus, an individual's microsystem includes the culture in which they are raised and live, as well as the interactions with others in their immediate environment (Zastrov & KirstAshman, 2009).

### The Importance of Home Learning Environment

The environment in which the students learn is Very crucial. In fact, studies suggest that a student's surroundings might affect their success by up to 25%. In other words, get the environment right, and pupils will be able to strive for the heavens and beyond (Cooper, 2018). Furthermore, children's learning behaviors in the classroom are influenced by their home environment, and learning behaviors such as competence motivation, attention, and persistence are critical determinants of academic achievement. Gender, age, ethnicity, urban living, parent educational level. and special education categorization status have all been demonstrated to influence the likelihood of particular learning practices (Schaefer, 2004).

According to education.gov.scot.parentzone, the home learning environment is the sum of all that a student does, their family, and the places to which they have access that affects their growth and learning. The most crucial aspect, though, is their contacts with individuals who offer kids with love, stability, support, dialogue, and great role models in order for them to strive harder in school. A pleasant home learning environment promotes children and young people to be curious about learning and to believe in themselves.

Home environment has great impact on learning. The home environment plays a major role to determining the child's personality and also in their achievement (Jayanthi J. & Srinivasan K. 2015). The home has an

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important influence on the child's academic achievement. What the child learns at home and how his family motivates him towards education contributes to the child's success in school (Essien, 2002).

In an article "What works in online/distance teaching and learning?" mentioned that, it is also important to remember that there are positives to home-based education – quality education is not always structured, academic or scholastic, and learning occurs in many different contexts. Home life can provide opportunities for students to engage with nature, bond with family, learn civic responsibility, and focus on social health.

### METHODOLOGY

This study used the descriptive survey method of research. A survey is used to collect data from members of a population to determine the current status of the population in respect to one or more variables (Orodho, 2009). Specifically, this study shall use the cross-sectional survey design in order to collect important data on the effects of home environment to the academic performance of students.

The method is appropriate for this study as it typically reports relations among variables, and enables the researchers to obtain descriptions of the current situations of home environment and the academic performance of Grade 10 students.

### **FINDINGS / RESULTS**

### **I.Demographic Profile of the Students**

The frequency and percentage distribution of respondents' profiles by section is shown in Table 1. According to the table, 38 percent of the responders came from St. Gertrude; 20 percent each from St. Cecilla and St. Elizabeth; 16 percent from St. Juliana; and just 6% from St. Margareth.

| Table 1. Frequency   | and Percentage | Distribution |
|----------------------|----------------|--------------|
| according to Section |                |              |

| Section       | Frequency | Percentage |
|---------------|-----------|------------|
| St. Gertrude  | 38        | 38 %       |
| St. Juliana   | 16        | 16 %       |
| St. Margareth | 6         | 6 %        |
| St. Cecilla   | 20        | 20 %       |
| St. Elizabeth | 20        | 20 %       |
| TOTAL         | 100       | 100 %      |

In addition, table 2 presents the frequency and percentage distribution of respondents based on their academic grades. It reveals that 39 or 39% of respondents have a grade range of 85-89; 30% have a grade range of 80-84, followed by 22 or 22% of the respondents have a grade range of 90-94, which has a percentage of 22%; 7% have a grade range of 75-79, and 2% have a grade range of 95-100. Generally, the grades of the respondents in their academic performance is relatively high.

Table 2. Frequency and Percentage Distributionaccording to Academic Grades

| Grades   | Frequency | Percentage |
|----------|-----------|------------|
| 95 - 100 | 2         | 2 %        |
| 90 - 94  | 22        | 22 %       |
| 85 - 89  | 39        | 39%        |
| 80 - 84  | 30        | 30%        |
| 75 – 79  | 7         | 7%         |
| TOTAL    | 100       | 100%       |

**II.** Home Environment of the Students

In this regard, the data in table 3 depicts the frequency and percentage distribution based on family size. According to the table, the majority of the respondents (59%) have a family of 4-6 members; followed by 20% have 1-3 members; 18% have 7-9 members; and only 3% have a family of 10 or more members.

| Family Size          | Frequency | Percentage |
|----------------------|-----------|------------|
| 1-3 members          | 20        | 20%        |
| 4-6 members          | 59        | 59%        |
| 7-9 members          | 18        | 18%        |
| 10 members and above | 3         | 3%         |
| Total                | 100       | 100%       |

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Table 4 also shows the frequency and percentage distribution based on a parent's financial situation. The majority of the respondents' parents' economic status is below P10,000 (54%), followed by 21% ranging from P10,000 to P20,000; 10% ranging from P20,001 to P30,000; 9% ranging from P40,001 to P50,000; 4% above P50,000; and finally, only 2% ranging from P30,001 to P40,000.

| Table 4. Frequency and Percentage Distribution |
|--|
| according to Parent's Economic Status          |

| Parent's economic  | Frequency | Percentage |
|--------------------|-----------|------------|
| status             |           |            |
| Below P10, 000     | 54        | 54%        |
| P10,001 - P20,000  | 21        | 21%        |
| P20,001 - P30,000  | 10        | 10%        |
| P30, 001 – P40,000 | 2         | 2%         |
| P40,001 - P50,000  | 9         | 9%         |
| Above P50, 000     | 4         | 4%         |
| Total              | 100       | 100%       |

As a result, table 5 reveals the distribution of respondents based on the educational attainment of their parents. With 30 percent of the 100 respondents, the bulk of their father's educational attainment is a college degree, while high school graduate and elementary undergraduate have the same response with 17 percent. With 13 percent for high school undergraduates, 9 percent for college undergraduates, and only 1 percent for short courses, the same reaction occurs with high school undergraduates and primary graduates.

On the other hand, the majority of the respondents' mothers' educational attainment is a college graduate (32%) followed by a high school graduate and an elementary graduate (both 21%). Additionally, college undergraduate and elementary undergraduate have an equal response of 9% and only 7% for high school undergraduate. This implies that the largest cohort of the parent's educational attainment are college graduates.

| Table 5. Frequency | and Percentage Distribution | n according to Parent's Educational Attainment |
|--------------------|-----------------------------|--|
|                    | · ·······                   | - ·····  |

| Father's educational attainment | Frequency | Percentage |
|---------------------------------|-----------|------------|
| College graduate                | 30        | 30%        |
| College undergraduate           | 9         | 9%         |
| High school graduate            | 17        | 17%        |
| High school undergraduate       | 13        | 13%        |
| Elementary graduate             | 13        | 13%        |
| Elementary undergraduate        | 17        | 17%        |
| Short course                    | 1         | 1%         |
| Total                           | 100       | 100%       |
| Mother's educational attainment | Frequency | Percentage |
| College graduate                | 32        | 32%        |
| College undergraduate           | 9         | 9%         |
| High school graduate            | 21        | 21%        |
| High school undergraduate       | 7         | 7%         |
| Elementary graduate             | 21        | 21%        |
| Elementary undergraduate        | 9         | 9%         |
| Total                           | 100       | 100%       |

Hence, results in table 6 present the frequency and percentage distribution by type of family structure. The data shows that the majority of respondents (81%) have a nuclear family, followed by 7 percent for single parent families, and both 6 percent for extended and grandparent families.

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| according to Type of Family Structure |           |            |  |
|---------------------------------------|-----------|------------|--|
| Type of Family                        | Frequency | Percentage |  |
| Structure                             |           |            |  |
| Nuclear family                        | 81        | 81%        |  |
| Single parent family                  | 7         | 7%         |  |
| Extended family                       | 6         | 6%         |  |
| Grandparent family                    | 6         | 6%         |  |
| Total                                 | 100       | 100%       |  |

Table 6. Frequency and Percentage Distributionaccording to Type of Family Structure

Table 3 shows the respondents' home environment in terms of learning materials availability at home. TV and videos have a weighted mean of 3.07, online resources have a weighted mean of 2.97, relevant

reading materials have a weighted mean of 2.68, and textbooks have a weighted mean of 2.67, and these are sometimes available in terms of their descriptive value. While software has a weighted mean of 2.26, maps have a weighted mean of 2.12, computers have a weighted mean of 2.02, charts have a weighted mean of 1.97, all of which are seldom available. The weighted mean on the chalkboard is 1.60, which isn't available. The overall weighted mean is 2.34, and its descriptive value is seldom available. TV and videos are portable tools which can be used conveniently in learning.

| Learning Materials         | Weighted Mean | Descriptive Value   |
|----------------------------|---------------|---------------------|
| Textbook                   | 2.67          | Sometimes Available |
| Software                   | 2.26          | Seldom Available    |
| Relevant Reading Materials | 2.68          | Sometimes Available |
| Online Resources           | 2.97          | Sometimes Available |
| TV and Videos              | 3.07          | Sometimes Available |
| Maps                       | 2.12          | Seldom Available    |
| Charts                     | 2.01          | Seldom Available    |
| Computers                  | 2.02          | Seldom Available    |
| Posters                    | 1.97          | Seldom Available    |
| Chalkboard                 | 1.60          | Not Available       |
| Overall Weighted Mean      | 2.34          | Seldom Available    |

Additionally, table 8 presents the frequency and percentage distribution according to lighting and ventilation. It is illustrated that in terms of lighting, the majority of the respondents are satisfied with a percentage of 66%, followed by 32% of being very satisfied, and only 2% of being dissatisfied.

Further, in terms of ventilation, 69% of the respondents are satisfied, 23% are very satisfied, 7% are dissatisfied, and only 1% are very dissatisfied. This implies that learners perform better when they have a comfortable learning environment at home, which includes good lighting and ventilation.

# Table 8. Frequency and Percentage Distribution according to Lighting and Ventilation

| Lighting          | Frequency | Percentage |
|-------------------|-----------|------------|
| Very satisfied    | 32        | 32%        |
| Satisfied         | 66        | 66%        |
| Dissatisfied      | 2         | 2%         |
| Total             | 100       | 100%       |
| Ventilation       | Frequency | Percentage |
| Very satisfied    | 23        | 23%        |
| Satisfied         | 69        | 69%        |
| Dissatisfied      | 7         | 7%         |
| Very Dissatisfied | 1         | 1%         |
| Total             | 100       | 100%       |

As shown in table 9, it indicates the frequency and percentage distribution according to home space. It was discovered that the sala received the highest percentage of 51%, followed by the bedroom at 30%, the study room at 12%, the terrace at 6%, and the backyard at only 1%.

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# Table 9. Frequency and Percentage Distributionaccording to Home Space

| Space      | Frequency | Percentage |
|------------|-----------|------------|
| Bedroom    | 30        | 30%        |
| Study Room | 12        | 12%        |
| Terrace    | 6         | 6%         |
| Sala       | 51        | 51%        |
| Backyard   | 1         | 1%         |
| Total      | 100       | 100%       |

It is reflected in table 10 that 61 or 61% of the respondents' type of Internet connection is cellular data; 31 or 31% used wireless/Wi-fi; 5 or 5 % used cable and 3 or 3% used satellite. The table further reveals that most of the respondents are using cellular data in their studies, which shows a higher percentage than any other Internet connection. This implies that students prefer cellular data because it allows them to access educational materials at any time and from any location.

 Table 10. Frequency and Percentage Distribution

 according to Type of Internet Connection

| Type of Internet<br>Connection | Frequency | Percentage |
|--------------------------------|-----------|------------|
| Cable                          | 5         | 5%         |
| Wireless/Wi-fi                 | 31        | 31%        |
| Satellite                      | 3         | 3%         |
| Cellular Data                  | 61        | 61%        |
| Total                          | 100       | 100%       |

Moreover, it is presented in table 11 with the frequency and percentage distribution according to Internet connectivity. As shown, the majority of the respondents have medium-speed connectivity with a percentage of 50%, while 37% have slow connectivity, and only 13% have fast connectivity. This study is supported by a report from Michigan State University's Quello Center (2020) that shows slow internet connections from homes in rural areas contribute to students falling behind can academically. This implies that one of the most significant issues faced by students is having slow internet connectivity, which limits their learning potential.

Table 11. Frequency and Percentage Distributionaccording to Internet Connectivity

| Internet          | Frequency | Percentage |
|-------------------|-----------|------------|
| Connectivity      |           |            |
| Fast Connectivity | 13        | 13%        |
| Medium-Speed      | 37        | 37%        |
| Slow Connectivity | 50        | 50%        |
| Total             | 100       | 100%       |

Table 12 presents the respondents' frequency of how often they do the following household chores. As revealed from the data, the majority of the respondents are doing the given household chores "some of the time" with an overall weighted mean of 2.84. These results imply that respondents have more time to do their schoolwork at home.

 Table 12. Weighted mean with its descriptive value according to Household Chores

| Household Chores                   | Weighted Mean | Descriptive Value |
|------------------------------------|---------------|-------------------|
| Doing the laundry                  | 2.74          | Some of the Time  |
| Sweeping the backyard              | 2.67          | Some of the Time  |
| Washing the dishes                 | 3.23          | Some of the Time  |
| Folding washed clothes             | 2.86          | Some of the Time  |
| Cooking                            | 2.86          | Some of the Time  |
| Cleaning the bathrooms             | 2.72          | Some of the Time  |
| Taking out the trash when its full | 2.78          | Some of the Time  |
| Cleaning the floors inside house   | 3.12          | Some of the Time  |
| Fetching water                     | 2.71          | Some of the Time  |
| Watering the plants                | 2.73          | Some of the Time  |
| Overall Weighted Mean              | 2.84          | Some of the Time  |

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# Table 13. Analysis of the Difference of AcademicPerformance of Respondents when Groupedaccording to their Home Environment

The data in table 13.1 reveals that the respondent's family size and academic performance do significantly differ. This implies that students who have smaller families perform better in school than those from larger families. In the study of Ella, et al. (2015), it reveals that there is a significant difference

on the family size of the students' academic performance. This implies that parents have the role to provide the needs of their children especially their educational needs that will motivate them to learn effectively and perform academically in school. To negate this study according to Booth & Kee (2006) identified that learners from large families have lower level of academic performance.

Table 13.1. Family size

| Tuble 101111 un |       |                       |   |                       |
|-----------------|-------|-----------------------|---|-----------------------|
| Family Size     | Mean  | <b>Computed Value</b> | Probability Value at 5% Level of Significance | Decision              |
| 1 - 3 members   | 88.80 |                       |   |                       |
| 4 - 6 members   | 85.15 | F = 3.213             | 0.026   | Reject H <sub>0</sub> |
| 7 - 9 members   | 86.00 |                       |   |                       |
| 10 and above    | 85.33 |                       |   |                       |

As presented in table 13.2, the data showed that the respondents' parents' economic status had a significant difference in their academic performance. Therefore, the high economic status of parents is significantly associated with the student's academic

 Table 13.2. Parents' Economic Status

performance. In the study of Asiegbu (2018), stated that the learners with high socio-economic status performs better in their academics. This implies that students who have high parents' economic status have more opportunities for a good education.

| Parents' Economic | Mean  | Computed Value | Probability Value at 5% | Decision |
|-------------------|-------|----------------|-------------------------|----------|
| Status            |       |                | Level of Significance   |          |
| Below 10,000      | 84.87 |                |                         |          |
| 10000 - 20000     | 86.90 |                |                         |          |
| 20001 - 30000     | 88.80 | F = 2.962      | 0.016                   | Reject   |
| 30,001 - 40000    | 85.50 |                |                         | $H_0$    |
| 40,001 - 50,000   | 85.56 |                |                         |          |
| Above 50,000      | 91.75 |                |                         |          |

As depicted in table 13.3, there is a notable discrepancy in the academic performance of respondents based on their parents' educational attainment. It suggests a significant and positive correlation between higher parental education levels and their children's academic success. Idris et al. (2020) underscored the significance of parental

education in influencing school-related decisions. They found that decisions made by highly educated parents tend to be more pertinent and thoughtful compared to those made by parents with lower educational attainment. This underscores the positive impact of parental educational level on the academic achievement of their children.

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| Parents' Educational      | Mean  | Computed  | Probability Value at 5% Level of | Decision |
|---------------------------|-------|-----------|----------------------------------|----------|
| Attainment                |       | Value     | Significance                     |          |
| FATHER                    |       |           |                                  |          |
| Short course              | 86.00 |           |                                  |          |
| Elementary undergraduate  | 83.35 |           |                                  |          |
| Elementary graduate       | 84.15 | F = 2.586 | 0.023                            | Reject   |
| High school undergraduate | 85.62 |           |                                  | $H_0$    |
| High school graduate      | 86.18 |           |                                  |          |
| College undergraduate     | 87.33 |           |                                  |          |
| College graduate          | 88.10 |           |                                  |          |
| MOTHER                    |       |           |                                  |          |
| Elem undergraduate        | 83.60 |           |                                  |          |
| Elementary graduate       | 83.86 |           |                                  |          |
| High school undergraduate | 85.00 | F = 3.715 | 0.004                            | Reject   |
| High school graduate      | 85.67 |           |                                  | $H_0$    |
| College undergraduate     | 87.00 |           |                                  |          |
| College graduate          | 88.44 |           |                                  |          |

### Table 13.3. Parents' Educational Attainment

The result of the analyzed data as shown in the table 13.4 reveals that the type of family structure and academic performance of students do not significantly differ. In support of this study, Azuma et al. (2018) found out that family structure indicated

no significant effects on academic performance of children. In this study regardless of family structure learners can achieve academic excellence with support of parents.

Table 13.4. Type of Family Structure

| Type of Family<br>Structure            | Mean           | Computed<br>Value           | Probability<br>Significance | Value | at | 5% | Level | of | Decision       |
|--|----------------|-----------------------------|-----------------------------|-------|----|----|-------|----|----------------|
| Nuclear Family<br>Single Parent family | 85.96<br>87.14 | F = 0.136                   |                             | 0.9   | 30 |    |       |    | Accept         |
| Extended Family                        | 86.00          | $1^{\circ} = 0.130^{\circ}$ |                             | 0.9   | 59 |    |       |    | H <sub>0</sub> |
| Grandparent Family                     | 85.83          |                             |                             |       |    |    |       |    |                |

In table 13.5, the data reveals that the availability of learning materials at home influences students' academic performance in school. Learning materials can significantly increase learners' achievement by supporting learning, according to OL Create (2020) supports this data which learning materials are available at home can helps students' learning. This implies that learning materials being available at home can help enhance the quality of learning and improve student performance.

### Table 13.5. Availability of learning materials at home

| Availability of     | Learning | Mean  | Computed  | Probability Value at 5% Level of | Decision |
|---------------------|----------|-------|-----------|----------------------------------|----------|
| Materials at Home   |          |       | Value     | Significance                     |          |
| Not Available       |          | 84.05 |           |                                  |          |
| Seldom Available    |          | 85.65 | F = 5.674 | 0.001                            | Reject   |
| Sometimes Available |          | 86.35 |           |                                  | $H_0$    |
| Always Available    |          | 91.50 |           |                                  |          |

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It can be inferred from table 13.6 that lighting and ventilation accept the hypothesis, which means that these factors do not significantly differ from the students' academic performance. Therefore, this study revealed that lighting and ventilation conditions of students, this does not affect their performance in school. It is always dependent on their willingness and availability to study more and achieve academic success.

| Table 13.6. Lighting and Ventilation |
|--------------------------------------|
|--------------------------------------|

| Lighting       | Mean  | Computed<br>Value | Probability Value at 5% Level of Significance | Decision |
|----------------|-------|-------------------|---|----------|
| Dissatisfied   | 82.00 |                   |   |          |
| Satisfied      | 85.45 | F = 2.843         | 0.063   | Accept   |
| Very Satisfied | 87.45 |                   |   | $H_0$    |
| Ventilation    |       |                   |   |          |
| Very           | 93.00 |                   |   |          |
| Dissatisfied   | 83.71 | F = 2.274         | 0.085   | Accept   |
| Dissatisfied   | 85.68 |                   |   | $H_0$    |
| Satisfied      | 87.52 |                   |   |          |
| Very Satisfied |       |                   |   |          |

As shown in table 13.7, the space at home of students does not significantly differ from the academic performance of students. It implies that any space available at home doesn't affects their academic performance at school.

| Home       | Mean  | Computed  | Probability Value at     | Decision              |
|------------|-------|-----------|--------------------------|-----------------------|
| Space      |       | Value     | 5% Level of Significance |                       |
| Sala       | 85.35 |           |                          |                       |
| Terrace    | 86.43 | F = 0.765 | 0.516                    | Accept H <sub>0</sub> |
| Study Room | 87.08 |           |                          | _                     |
| Bedroom    | 86.70 |           |                          |                       |

The data in table 13.8 reveals that the type of Internet connection and a student's academic performance do significantly differ. According to Dvorak (2022), his

study showed that the better internet connection have the more students get involved in academic performance.

### Table 13.8. Type of Internet connection

| Type of<br>Connection | Internet | Mean  | Computed<br>Value | Probability Value at 5% Level of Significance | Decision    |
|-----------------------|----------|-------|-------------------|---|-------------|
| Cellular Data         |          | 85.07 |                   |   |             |
| Satellite             |          | 91.33 | F = 3.171         | 0.028   | Reject      |
| Wireless/Wi-fi        |          | 87.13 |                   |   | $\dot{H}_0$ |
| Cable                 |          | 88.00 |                   |   |             |

In table 13.9, it reveals that Internet connectivity makes a significant difference to the academic performance of students. It means the faster the connectivity is, the more helpful it is for students in their studies. According to the study conducted by Souvik (2021), the faster the connection have the more opportunity to improve academic performance.

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| Table 15.7. Internet Connectivity |       |           |              |       |     |    |       |    |          |
|-----------------------------------|-------|-----------|--------------|-------|-----|----|-------|----|----------|
| Internet                          | Mean  | Computed  | Probability  | Value | at  | 5% | Level | of | Decision |
| Connectivity                      |       | Value     | Significance |       |     |    |       |    |          |
| Slow Connectivity                 | 84.41 |           |              |       |     |    |       |    |          |
| Medium Connectivity               | 86.86 | F = 3.855 |              | 0.0   | 024 |    |       |    | Reject   |
| Fast Connectivity                 | 87.54 |           |              |       |     |    |       |    | $H_0$    |

### Table 13.9. Internet Connectivity

Table 13.10 indicates the household chores, which do not significantly differ from the academic performance of students. Meaning, no matter how often they do the household chores at their home, this

### Table 13.10. Household Chores

does not affect the student's academic performance. As a result, respondents should manage their time to do academic tasks like home-works, worksheets, projects and academic requirements.

| Household<br>Chores | Mean  | Computed<br>Value | Probability<br>Significance | Value | at  | 5% | Level | of | Decision |
|---------------------|-------|-------------------|-----------------------------|-------|-----|----|-------|----|----------|
| Never               | 85.20 |                   |                             |       |     |    |       |    |          |
| Seldom              | 84.60 | F = 1.330         |                             | 0.    | 269 |    |       |    | Accept   |
| Some of the Time    | 86.02 |                   |                             |       |     |    |       |    | $H_0$    |
| Most of the Time    | 87.30 |                   |                             |       |     |    |       |    |          |

### **DISCUSSION / ANALYSIS**

This study was conducted for the purpose of determining the effects of the home environment on the academic performance of the Grade 10 students at Sto. Niño National High School. The descriptive method of research was used, and the survey questionnaire was utilized for gathering the data. The respondents were a sample of 100 Grade 10 students. The inquiry was conducted during the academic year 2021–2022. Of the 100 Grade 10 students, 38% were from St. Gertrude, while St. Cecilla and St. Elizabeth acquired 20% each, then 16% from St. Juliana and from St. Margareth is 6% only. Meanwhile, majority of the respondents have satisfactory grades and are doing well in their studies. On the other hand, this study found home environment factors that have a significant difference in the student's academic performance. These are family size, parents' economic status, parents' educational attainment, availability of learning materials, type of Internet connection, and Internet connectivity. Each of these home environment factors plays a significant role in the educational life of students. In contrast, the following are not significant based on the findings of this study: type of family structure, lighting, ventilation, home space, and household chores.

### CONCLUSION

It is the result of effective teaching and learning, as well as the concerted efforts of the teacher, the school, the students, parents, and their various home environments. As a result, in addition to other factors, a good home environment is required for a child's excellent academic performance. Students' abilities and attitudes toward learning differ. As a result, parents must recognize this and attend to their children as individuals. They should also strive to create and maintain a positive home environment in which love, hard work, and excellence are encouraged in order to bring out the best in their children's academic performance.

### LIMITATION AND STUDY FORWARD

The study aimed to assess the effects of home environment to the academic performance of students. This study was limited to the grade 10 students of Sto. Niño National High School.

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