

Correlates of Academic Performance of the Multigrade Schools in Hilongos South District

Dr. Estela B. Pasa

Baas Elementary School, Hilongos South District in Hilongos, Leyte

estela.pasa@deped.gov.ph

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ABSTRACT

This study aimed to determine the correlates of academic performance among multigrade schools in Hilongos South District, Leyte, Philippines. Utilizing a descriptive survey research design, it investigated the relationship between school performance and the profiles of key stakeholders: teachers (n=29), learners (n=282), and parents (n=282). Data were collected through questionnaires assessing teacher skills and learning environment, learner behavior and profiles, and parenting skills, alongside academic records. Results indicated that stakeholders had generally favorable profiles, with teachers demonstrating high skill levels and parents reporting

adequate parenting competencies. However, correlational analyses yielded unexpected findings. Notably, teachers' in-service training, teaching skills, and the learning environment showed significant negative correlations with academic performance. Only the age of learners showed a significant positive correlation. Other factors, including parents' educational attainment, income, parenting skills, and learners' nutritional status and behavior, showed no significant relationship with academic outcomes. These counterintuitive results suggest potential issues in the consistency of academic assessment or grading practices within the multigrade context, rather than a direct negative impact of teacher competencies. The study recommends that district administration ensure a balanced distribution of professional development, design strategies to effectively translate teaching skills into measurable academic gains, reconfigure learning environments to meet diverse needs, and develop inclusive programs that engage all learners and parents, regardless of age.

Keywords: *academic performance, multigrade classes, teacher skills, learning environment, stakeholder profiles, educational correlates*

INTRODUCTION

Education is one of the major indices used in the determination of the development of a country. It is an important key for the development of any society and an instrument a society can use to solve her problems. Gene (2005) opined that lack of basic education is a silent killer of large number of poorest children in the less developed world. Probably that is why UNESCO (2004) asserted that all nations should ensure that education is a right for all their citizens. Therefore, in this epoch of globalization and technological revolution, education is considered as a first step for every human activity. It plays an important role in the development of human capital which is connected to the individual's well-being and

opportunities for better living (Farooq et al. 2011). Thus, education is viewed to contribute largely to the socio-economic development of the nation.

While education is a vital factor for the country's development, the Philippine educational system is posed with some challenges specifically financial constraints that limit the establishment of ideal and conducive learning environment of the learners or students. One particular case is the multigrade or multigrade classes which is a manifestation of lack of school teachers and classrooms. It is a common knowledge that multigrade classes or multigrade teaching is generally considered more difficult and burdensome than single-grade teaching. But it is still being practiced due to lack of teachers who are supposed to handle mono or single classes. In less developed countries like the Philippines, multigrade classes or multigrade classrooms is commonly observed. This situation was also pointed out by Mulryan-Kyne (2006) emphasizing that multigrade classes are not aberrations, but are used throughout the world, and are likely to continue and grow in use in the future. This scheme is expected to continue within the educational system of a developing country like the Philippines where financial support to hire more teachers is a problem.

One of the vital problems that multigrade classes are facing is their *academic performance*. Academic performance is a complex task influenced by various factors like *teaching skills, learners' behavior, learning environment and parenting skills* and should be dealt with carefully. Although multigrade classes provide an economic solution to the difficulties of providing increased access for children in a populated rural area where it is difficult to provide the adequate number of teachers needed for the mono grade classes, the academic performance could be largely affected or jeopardized. Compared to a single class teaching, multigrade classes are wearisome in view of the various lessons plans and other items that should be prepared. Most teachers, when asked about their feelings toward organizational and teaching strategies for multigrade classes, responded negatively and preferred not to teach them (Mason and Burns, 1995). Teachers report that these classes require more planning, are more difficult to teach, and diminish instruction and curriculum coverage (Mason & Burns, 1997).

Teacher factor could largely affect academic performance of multigrade classes. Many of these factors like skills need heightened emphasis in the context of the preparation of teachers for multigrade teaching (Mulryan-Kyne, 2006). Some efforts are made to help teachers develop knowledge and skills to teach in multigrade classes or multigrade schools, yet the problems of effective teaching under this situation are persistent. Likewise, *learners' behavior* is perceived to affect the academic performance of multigrade classes to a certain degree. How learners perform and behave in multigrade classes is a complex situation influenced by various issues. Learners in the countrysides are commonly beset with socio-economic hardship thereby affecting their behavior towards their studies.

Sanders (2001) pointed out that low socio-economic status of learners has led them to a lower level of academic achievement. This problem is made more complex with the conditions of the *learning environment*. In most schools, multigrade classes arise through necessity rather than choice. In many rural areas, parents do not have the opportunity to choose between sending their child to a school with multigrade, multigrade or mono-grade classes. If they choose not to place their child in a multigrade or multigrade class, the child will remain uneducated.

Another factor that may affect the academic performance of multigrade classes is the *parenting skills*. One of the relevant studies conducted by Krashen (2005) showed that students whose parents were educated score higher on standardized tests than those whose parents were not educated. Educated parents can better communicate with their children regarding the school work, activities and the information being taught at school. They can better assist their children in their work and participate at school (Fantuzzo &

Tighe, 2000). The academic performance of students heavily depends upon the parental involvement in their academic activities to attain the higher level of quality in academic success (Barnard, 2004).

Many teachers, administrators, and parents continue to wonder whether or not multigrade classes or multigrade organization has negative effects on student performance. Multigrade classes have the advantage of bringing together different ages and stages of development where older children are naturally helping younger ones. Children in lower grade levels can benefit from positive models of the children in higher grade levels in the same classroom. But on the disadvantage side, multigrade classes are considered second rate of education among parents and other stakeholders. It is multitasking requiring the teacher in-charge to double time her/his classroom preparations which may affect her/his teaching performance. Thus, an investigation to determine the *academic performance* of multigrade classes in Hilongos South District as influenced by the *four factors* mentioned above becomes essential. The result of this investigation could serve as baseline information or takeoff point for educational policy reformation or enhancement at least within the district involving multigrade classes.

Theoretical/Conceptual Framework

This study is anchored on the theory of Educational Productivity by Walberg (1981) which determined three groups of a number of factors based on affective, cognitive and behavioral skills for optimization of learning that affect academic performance. Under this theory, the amount and quality of *teaching or instruction* are viewed to highly affect the academic performance of students or the school as a whole. Obviously, multigrade classes are really a great challenge as teachers must handle several classes requiring more energy and flexibility. Thus, this study will investigate how this factor affects the academic performance of multigrade classes. Secondly, the *learners' behavior* was also viewed by Walberg (1981) to affect academic performance in relation to their ability, development and motivation. Learners' behavior is also a complex issue influenced by teaching skills, learning environment, parenting skills, culture, and many others. Hence, this study will also investigate how behavior of learners' influence or affect academic performance of the multigrade classes under this study.

Furthermore, the theory also pointed out the *learning environment* (specifically classrooms, peers and television) and *parenting* (specifically the home environment) to affect academic performance. Typically, academic performance is measured using baseline test scores of learners in a school. Such a measure reflects a multigrade or innate ability as well as the impact of teaching skills, parents, and peers encountered. Therefore, there are many factors that influence a student's academic performance, and those factors – such as the teacher, the school, and the home environment – may vary in lockstep with the peer group, making it difficult to isolate the influence of any given element (Todd, 2012).

Finally, the theory of Walberg (1981) indeed is a valuable guide to identifying the affective, cognitive and behavioral skills affecting the academic performance of learners and the school in general. But the fact remains that it is difficult to clearly isolate all of them. Knowing these factors either singly or as a group is nonetheless an essential means to help enhance the educational system of the Philippines. Hence, this study was conducted as an attempt to understand how those perceived factors affected the academic performance of multigrade classes. While it is true that there were many factors that would affect such performance, at least findings from this investigation could provide a clearer view, if not comprehensive at all, how teaching skills, learners' behavior, learning environment and parenting skills could affect the overall academic performance of the multigrade classes in focus.

Based from the conceptual framework (Fig. 1), the study gathered the teachers', learners' and parents' profiles considering that, being the internal stakeholders, they were expected to affect the academic

performance of multigrade schools. In addition, the study also determined the teaching skills, learners' behavior, environmental learning conditions and parenting skills through survey questionnaires and actual assessment of school records. Once all these data were fully gathered, they were analyzed qualitatively and quantitatively using statistical tools to determine the relationship between the profile of multigrade classes and academic performance. Finally, the results or findings from this endeavor were expected to provide valuable information useful for the improvement and/or development of better teaching strategies of multigrade schools in Hilongos South District.

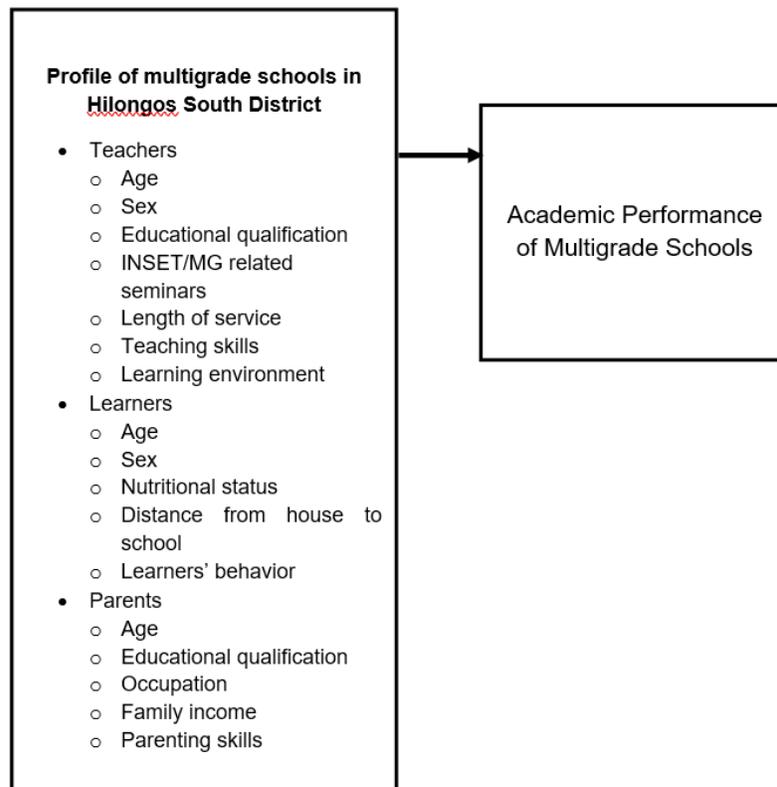


Figure 1. Schematic Diagram of the Conceptual Framework Statement of the Problem

Objective of the Study

The main purpose of this study was to determine the correlations of the academic performance of the multigrade schools in Hilongos South District, Leyte Division with the profile of the stakeholders as basis for policy recommendation towards improving its management and teaching strategies.

Specifically, the study sought to answer the following questions:

1. What is the profile of multigrade schools in terms of:
 - 1.1 Teachers
 - 1.1.1. Age;

- 1.1.2. Sex;
- 1.1.3. Educational qualification;
- 1.1.4. INSET/MG-related seminars;
- 1.1.5. Length of service;
- 1.1.6. Teaching skills; and
- 1.1.7. Learning environment?
- 1.2. Learners
 - 1.2.1. Age;
 - 1.2.2. Sex;
 - 1.2.3. Nutritional status;
 - 1.2.4. Distance from house to school; and
 - 1.2.5. Learners' behavior?
- 1.3. Parents
 - 1.3.1. Age;
 - 1.3.2. Educational qualification;
 - 1.3.3. Occupation;
 - 1.3.4. Family income; and
 - 1.3.5. Parenting skills?
2. What is the level of academic performance of learners in multigrade schools?
3. Are there significant correlations between the academic performance and each of the following factors:
 - 3.1.1. Teachers;
 - 3.1.2. Learners; and
 - 3.1.3. Parents;
4. Based on the findings of the study, what policy could be formulated to improve multigrade schools?

Hypotheses

The null hypotheses were tested at 0.05 level of significance.

Ho1: There are no significant correlations between the profile and academic performance of multigrade schools in each of the following factors:

- Teachers;
- Learners; and
- Parents

Review of Related Literature

This chapter presents concepts and literature reviewed which had resemblance to the study. The information added in this part relates to academic performance and the complex factors influencing such performance which were used as the basis for the conceptualization of the whole study.

Conceptual Literature

The arrangement of the concepts of this study was centered on the academic performance of multigrade classes and the factors influencing such performance.

Academic performance. Educators, trainers, and researchers have long been interested in exploring variables contributing effectively for quality of performance of learners. These variables are inside and outside school that affect students' quality of academic achievement. These factors may be termed as *student factors, family factors, school factors and peer factors* (Crosnoe, Johnson & Elder, 2004). Therefore, academic performance remains an important indicator of achievement or success in any educational institution. Being complex, a lot of factors can be considered to influence academic performance. Empirically, there are many factors that influence a child's academic achievement and the school in general. The neighborhood children live in, the quality of the school, and parents' occupations and economic status all have an effect. The level of parental education is a proven factor in predicting the academic achievement of their children. But in the purview of providing the readers the most important influencing factors of academic performance (with consideration on the financial constraints on the part of the researcher to study all factors), this study decided to investigate for major areas, namely; teaching skills, learners' behavior, learning environment conditions, and parental skills. The following paragraphs will provide relevant conceptual literatures on the abovementioned factors in relation to academic performance:

Multigrade versus Mono Classes. Multigrade classes are thought to be more challenging responsibilities as compared to mono classes or one teacher-one class category. Although multigrade classes provide an economic solution to the difficulties of providing increased access for children in a populated rural area where it is difficult to provide the adequate number of teachers needed for the mono grade classes, the academic performance could be largely affected or jeopardized. Compared to a single class teaching, multigrade classes are wearisome in view of the various lesson plans and other items that should be prepared. Most teachers, when asked about their feelings toward organizational and teaching strategies for multigrade classes, responded negatively and preferred not to teach them (Mason and Burns, 1995). Teachers report that these classes require more planning, are more difficult to teach, and diminish instruction and curriculum coverage (Mason & Burns, 1997).

Higgins (2005) explained that the performance of learners taught using multigrade and mono-grade teaching were due to the factors, namely grouping alone is unlikely to have an effect; learning is more dependent on the quality of teaching than on organizational structure; bias in selecting more capable students into multigrade classes, if it occurs, would deplete the proportion of those students in mono-grade classes, producing non-equivalent samples for comparison; teachers of multigrade classes are inadequately prepared for teaching such classes and do not have available suitable materials for their teaching; multigrade teaching is demanding and leaves teachers with little energy to pursue potentially more effective grouping strategies in their teaching, resulting in the use of the same practices as in single-grade classes; most teachers have been trained to work in mono-grade classrooms; their knowledge of teaching method is based on whole-class instruction and small-group instruction (with groups often formed on the basis of ability or achievement level); when placed in a multigrade setting, teachers of the 60s and 70s discovered that the time requirements and skills needed to be effective were simply not part of their prior training and experience. Although the premises of "open" and "regular" (traditional) education can differ sharply, this finding still applies to multigrade classrooms in traditional schools, hence this study was conducted.

Teaching Skills. One of the factors that would affect the academic performance of multigrade classes is the teaching skills. Multigrade classes are widespread in rural schools, in which teachers work

with more than one curriculum grade at the same time. If the multigrade classes approach is utilized, then it should be utilized with due diligence—providing teacher support and development, utilizing team teaching, encouraging many diagnostic opportunities (so that learning can be tailored to learner's current levels), and so forth. The professional knowledge and skills that are relevant and necessary to teaching effectively in single-grade contexts are also relevant and necessary for effective multigrade classes or multigrade teaching. However, many of these skills need heightened emphasis in the context of the preparation of teachers for multigrade teaching (Mulryan-Kyne, 2006). Some efforts are made to help teachers develop knowledge and skills to teach in multigrade classes or multigrade schools, yet the problems of effective teaching under this situation are persistent. In order to address this, there is a need to study the situation to find out the existing range and quality of multigrade classes or multigrade teaching practices and plan intervention for improvement. Many teachers, administrators, and parents continue to wonder whether or not multigrade classes or multigrade organization has negative effects on student performance. Hence, this study determined how the teaching skills affected the academic performance of multigrade classes.

Education is an important tool that can shape an individual and allow creativity, opportunity and growth. As a teacher, it is necessary to motivate students and help them recognize their strengths and weaknesses. Educators are important role models for students and have a big impact on helping shape, create, support and establish students' strengths, goals and knowledge. Therefore, it is essential to be aware of the effective qualities, skills and characteristics that one brings into a learning environment. Teacher preparation and knowledge of teaching and learning, experience, subject matter knowledge and certification all establish teacher effectiveness. Teacher preparation is important to their effectiveness in a classroom. Good quality teacher preparation is important to student academic achievement. Prepared graduates have a higher likelihood of remaining teachers and providing quality service to their students and to the schools they work in. Nevertheless, teacher-efficacy is a teacher's confidence in their ability to help students to learn. Research shows that teacher-efficacy has an effect on his or her students' academic performance. It is important that teachers believe in themselves and in their abilities as a role model and educator, because it plays an important role on their student's self-perception and performance. It also helps a teacher communicate more effectively with students as well as with the overall perception of their student's strengths and weaknesses. Teachers with self-efficacy have a positive impact on their students' academic performance. It is something that all teachers need to build, because it is believed to have an important role on students' academic performance (Oquendo, 2012).

Learners' Behavior. Another factor that could affect the academic performance of multigrade classes is the learners' behavior. When children are excelling socially in a classroom, the environment has been created for academic achievement. The US Government reports evidence indicates that multigrade instruction has a significant positive impact on student attitudes: It tends to enhance achievement outcomes under positive implementation conditions. The environment and the personal characteristics of learners also play an important role in their academic success. The school personnel, members of the families and communities provide help and support to students for the quality of their academic performance. This social assistance has a crucial role for the accomplishment of performance goals of students at school (Goddard, 2003). Besides the social structure, parents' involvement in their child's education increases the rate of academic success of their child (Furstenberg & Hughes, 1995). This means that learners' behavior is a product of various factors, hence, an interesting area to investigate.

A student's behavior can affect his/her ability to learn as well as other students' learning environment. Students who behave disruptively by bullying other students, talking during lectures or by requiring the teacher to interrupt lessons to discipline them can have a negative effect on an entire classroom. Students with poor impulse control have more difficulty motivating themselves to study, do

homework and listen in class. This can decrease their ability to excel academically, even when they perform well on IQ and achievement tests. Rule-setting and teaching frustration tolerance play critical roles in helping children develop impulse control. Even the best teachers can't force a student to learn if the student is completely unmotivated. Student motivation can determine whether a student studies or does her homework, whether she seeks additional help when she needs it and how carefully she listens in class. The textbook "Child Psychology" mentioned from developmental psychologist Albert Bandura indicating that children who are internally motivated are more likely to excel than children who require external motivation in the form of punishments and rewards (Thompson, undated).

Learning environment. Another factor that could affect the academic performance of multigrade classes is the condition of the learning environment. The environment and the personal characteristics of learners play an important role in their academic success. In most schools, multigrade classes arise through necessity rather than choice. In many rural areas, parents do not have the opportunity to choose between sending their child to a school with multigrade or mono-grade classes. If they choose not to place their child in a multigrade or multigrade class, the child will remain uneducated (Sanders, 2001). Accesses to multigrade classes, and the quality of teaching and learning in them are teaching strategies in the worldwide fulfillment of education for all and the Millennium Development Goals for education (UNESCO, 2004). The researcher also determined how this factor would affect the academic performance of multigrade classes.

Parenting Skills. Another factor that would affect the academic performance of multigrade classes is the parenting skill. Educated parents are thought to better communicate with their children regarding the school work, activities and the information being taught at school. They can better assist their children in their work and participate at school (Fantuzzo & Tighe, 2000). In addition, low socio-economic level strongly affects the achievement of students, dragging them down to a lower level (Sanders, 2001). It is observed that the economically disadvantaged parents are less able to afford the cost of education of their children and consequently they do not work at their fullest potential (Rouse & Barrow, 2006). The home environment obviously affects the academic performance of students. Educated parents can provide such an environment that suits best for academic success of their children. The school authorities can provide counseling and guidance to parents for creating positive home environment for improvement in students' quality of work (Marzano, 2003). The academic performance of students heavily depends upon the parental involvement in their academic activities to attain the higher level of quality in academic success (Barnard, 2004).

Related Literature

The different researches on the academic performance and the factors influencing such performance are presented in this part.

Academic performance. Academics specifically inclined to hard researches have long been interested in exploring variables contributing effectively for quality of performance of learners. There are many factors that influence a child's academic achievement and the school in general. Previous research on the effects of multigrade classes on non-cognitive skills focuses on measures of student self-concept and attitude towards school. The results suggest a small positive effect. Similarly, early studies that looked at the effect on cognitive measures concluded that students in multigrade classrooms performed no worse and sometimes better in terms of test scores. Both groups of studies, however, failed to address the non-random selection of students and teachers into multigrade classes (Sattari, 2016). This study adopted the random

selection of learners to determine whether teaching skills, learners' behavior, environmental learning conditions and parenting skills indeed had influence on the academic performance of multigrade classes.

Multigrade versus Mono Classes. Multigrade classes, where students from two (or more) adjacent grades were grouped within one classroom, are common in many developing and developed countries. According to UNESCO (2005 Agenda for Educational Planning, as cited in Checchi, and De Paola, 2017), approximately one third of all classes across the world are multigrade classes. In 2007, about 28% of schools in the United States were adopting this type of educational practice when the number of learners was too small. The incidence of multigrade classes was also high in many European countries, especially in less populated areas. For instance, in France about 37 per cent of primary school learners are in such classes. In Finland and in the Netherlands, multigrade classes prevail over single-grade ones (Mulkeen and Higgings, 2009, as cited in Checchi and De Paola, 2017).

The use of multigrade classes often responds to the need of providing school services at the student's place of residence at a reasonable cost. In fact, in many developed countries, the presence of this type of school organization is typical of rural or mountainous areas that in recent years, especially in some countries, had experimented a drastic reduction in resident population: in these circumstances multigrade classes allowed schools to remain located closer to the families they served since there were not enough children to fill a conventional monograde class (Checchi and De Paola, 2017).

In previous years, some significant studies had been carried out on the effects of multigrade classes on student and school achievement. In Miller (1991), experimental studies were reviewed assessing academic achievement in mono-grade and multigrade classrooms and found that there were no significant differences between them. The data clearly support the multigrade classroom as a viable and equally effective organizational alternative to mono-grade instruction. The limited evidence suggests there may be significant differences depending on subject or grade level. Primarily, these studies reflect the complex and variable nature of school life. Moreover, there are not enough such studies to make safe generalizations about which subjects or grade levels are best for multigrade instruction.

Veenman (1995) conducted a research concerning the cognitive and non-cognitive effects of multigrade and multi-age classes (45 of which were concerned with multigrade classes), drawn from a wide range of countries and nations across the world, both developed and developing. Veenman (1995) and Higgins (2005) found that there were no consistent differences in student achievement between multigrade and mono-grade classes. The overall median effect size for cognitive outcomes was 0.00, while the overall median effect size for affective outcomes was +0.10.

Numerous studies compared the effectiveness of "open" classrooms (multigrade organization with student-centered ethos and methods) and "regular" classrooms (mono-grade organization with traditional ethos and methods). The researcher learned a great deal from these innovative efforts. Working in an open, multigrade school requires serious, ongoing teacher training and a commitment to hard work.

Teaching Skills. One of the factors that would also affect the academic performance of multigrade classes are the teaching skills. However, many teachers that are tasked to carry-out the responsibility of teaching multigrade classes are not actually prepared to do so. Based on the study conducted by Sag (2009), he found out that faculties of education did not conduct sufficient research into determining the needs of the teachers who would be working in rural areas and therefore were not knowledgeable about the issue. He also pointed out that trainee teachers experienced difficulties regarding issues such as preparing classes to learning, selecting appropriate instructional strategies for this structure, management of these schools, using instructional techniques particular to multigrade classes, and adapting instructional programs as relevant for multigrade classrooms. The professional knowledge and skills that are relevant and necessary

to teaching effectively in single-grade contexts are relevant and necessary for effective multigrade classes or multigrade teaching. However, many of these skills need heightened emphasis in the context of the preparation of teachers for multigrade teaching (Mulryan-Kyne, 2006).

Lapuz (2015) pointed out that multigrade teaching in the remote villages in San Jose District, Tarlac, Philippines entailed a lot of difficulties which were mostly on travel, lack of physical facilities, inadequate instructional materials and inadequate trainings. Some were personal such as lack of time to spend with the family due to so many school works. Others were on financial problems. Some of these may not be pedagogical but require support for communications and roads, building wells and latrines or partnership building with parents. Multigrade teaching literally affected the lives of the teachers since all their plans were dependent upon what was possible considering their time staying in the mountains, thereby affecting teaching skills. Many teachers, administrators, and parents continue to wonder whether or not multigrade classes or multigrade organization has negative effects on student performance. Hence, this study determined how the teaching skills affect the academic performance of multigrade classes.

Learners' Behavior. Another factor that could affect the academic performance of multigrade classes is the learners' behavior. Sattari (2016) found out that multigrade classrooms significantly increased children's behavioral problems. Specifically, students in multigrade classes on average had 0.98 of a standard deviation more peer relationship problems and exhibited 0.90 of a standard deviation more behaviors that were associated with hyperactivity. The effect of multigrade classes on peer relationship problems and hyperactivity was twice as large for boys as for girls. There was also weak evidence that multigrade classes increased internalizing behavior problems (the effect size for an average student was 0.66 of a standard deviation).

A 2010 study published in "American Economic Journal: Applied Economics" found out that disruptive students can lower the test scores and academic achievement of an entire classroom. Teachers who have disruptive students in their classroom may have to spend additional time on behavioral management, reducing the time the teachers spend teaching. Students with poor impulse control have more difficulty motivating themselves to study, do homework and listen in class. This can decrease their ability to excel academically, even when they perform well on IQ and achievement tests (Thompson, undated). This study looked into this factor whether the same findings also prevailed in the situation in the Philippines specifically in Hilongos South District.

Learning environment. Learning environment is a complex factor. The environment and the personal characteristics of learners play an important role in their academic success. In most schools, multigrade classes arise through necessity rather than choice. There is general agreement in the literature that multigrade teaching is prevalent globally and places greater demands on teachers than single grade teaching (Brown, as cited in Maluadzi, 2016). In the same study, it was further argued that teachers of multigrade classes generally had a negative perception of multigrade classes and multigrade teaching due to the diverse challenges that they faced. The report of the Task Team for the Review of the Implementation of the National Curriculum Statement (DoE, 2009:60) states that no specific training has been provided for teachers of multigrade classes and that there is a lack of policy guidance for these teachers. This in turns affect the environmental learning conditions considering that the teachers expected to deliver are not trained to undertake the responsibility.

The Cross of Glory (Undated) pointed out some advantages of a Multigrade Classroom. According to that report, the one-room schoolhouse offered certain attributes that were very sound educationally. First of all, children remained with the same teacher and primarily the same class of students for multiple years. School was a stable, reliable environment for the children. Second, the mix of ages and abilities provided optimum opportunities for student collaboration [as] older students served as role models. There was no

apparent ceiling on the content taught, discussed, or overheard with the room, which benefitted older students by design and younger students more incidentally. It added that studies indicated that younger children actively used older children to develop skills and to acquire knowledge while older children actively asserted responsibility for younger ones and developed an increasingly sophisticated understanding of the responsibility. Age mixing provided opportunities for children to find other matching abilities. This means that the learning environment under the multigrade classes had some advantages. However, this remains to be investigated as the situation differs from one country to another and even the same country.

Parenting Skills. Another factor that would affect the academic performance of multigrade classes is the parenting skill. One of the relevant studies conducted by Krashen (2005) showed that students whose parents were educated scored higher on standardized tests than those whose parents were not educated. Educated parents could better communicate with their children regarding the school work, activities and the information being taught at school. They could better assist their children in their work and participate at school (Fantuzzo & Tighe, 2000). According to a research review at the University of Minnesota, the nature of parents' attitudes toward and involvement in their children's educations is critical. Parental involvement in education is a factor in student success. Parents with more education are more likely to get involved in the school. Better-educated parents are familiar with how schools work and are likely comfortable with school structure. Children are aware of their parents' comfort levels with education and it is reflected in their grades (Hanly, undated).

The information cited above are indeed providing valuable information which aided in understanding the factors that affected the academic performance of learners and the school as a whole. Despite their conclusive expression, it should be noted that culture, parenting, behavior and educational system from one country to another could differ and, thus, this study looked upon these factors. Against these backgrounds, the researcher made up her mind to propose a research examining the factors affecting the academic performance of multigrade and multigrade classes in the schools of Hilongos South District, Leyte Division.

METHODOLOGY

This chapter explains the research design, research environment, research respondents, instruments, data gathering, and the statistical treatment adopted in this study.

Research Design

The study utilized a descriptive survey research design which is appropriate in gathering information about prevailing conditions or situations for the purpose of description and interpretation (Aggarwal, 2008). It is suitable wherever the subjects vary among themselves and one is interested to know the extent to which different conditions and situations are obtained among these subjects. The word survey signifies the gathering of data regarding the present conditions (Calmorin and Calmorin, 2007).

In this study, the independent variables included the profiles of the internal stakeholders, specifically, the teachers, learners and parents. The dependent variable in this study was the academic

performance of the multigrade classes in the schools of Hilongos South District because it was affected by the abovementioned profiles.

Research Environment

This study was conducted in the multigrade schools of Hilongos South District, Division of Leyte. There were 18 schools in Hilongos South District which offered multigrade classes, namely, Campina ES, Mana-ul ES, Bantigue ES, Cantandog 1 ES, Cantandog 2 ES, San Roque ES, Agutayan ES, Baliw ES, Cacao ES, Hampangan ES, Hitudpan ES, Kang-iras ES, Libertad ES, San Isidro ES, Tuguipa ES, San Agustin ES, and Bun-ot PS (Table 1). Location of the study sites are shown on the vicinity map (Figure 2).

Table 1. *Multigrade Schools within the Hilongos South District*

Name of School	No. of MG Teachers	No of School Heads/Principals	No. of MG Learners	No. of Parents
1. Agutayan ES	3	1	74	74
2. Baliw ES	3	1	123	123
3. Cacao ES	3	1	102	102
4. Hampangan ES	1	1	56	56
5. Hitudpan ES	2	1	85	85
6. Kang-iras ES	1	1	81	81
7. Libertad ES	3	1	118	118
8. San Isidro ES	3	1	99	99
9. Tuguipa ES	1	1	49	49
10. San Agustin ES	1	1	13	13
11. Bantigue ES	1	1	18	18
12. Bun-ot PS	1	1	14	14
13. Campina ES	1	1	26	26
14. Cantandog 1 ES	1	1	16	16
15. Cantandog 2 ES	1	1	17	17
16. Kanghaas ES	1	1	15	15
17. Mana-ul ES	1	1	21	21

18. San Roque ES	1	1	27	27
Total	29	18	954	954

Research Respondents

The respondents of this study were the parents, teachers and school heads within the schools of Hilongos South District offering multigrade or multigrade classes. The following procedures were undertaken to determine the number of respondents and their respective roles during the conduct of this study:

Universal sampling for teachers was used during the conduct of this study. This means that all teachers handling multigrade or multigrade classes within Hilongos South District were included as respondents. They were requested to rate and assess on the learners' behavior and learners' profile. They were also requested to answer the environmental learning condition considering that they knew very well the amenities in their schools. The number of teachers handling multigrade classes were shown in Table 1.

Universal sampling was also used for the school heads during the conduct of this study. This means that all school heads supervising the teachers handling all multigrade classes in Hilongos South District were requested to answer the survey questionnaires related to the skills, performance and profiles of said teachers.

The Slovin's formula was used to determine the number of parents who served as respondents to answer the parenting skills as well as the parents' profile. The result of Slovin's formula was needed to determine the normal distribution of samples per school within the 18 schools in Hilongos South District offering multigrade and multigrade classes. Considering that there were several parents involved as internal stakeholders, a statistically acceptable sample was determined at 5% margin of error, hence, the Slovin's formula. Obviously, not all the parents were involved in consideration of the time and financial constraints facing this undertaking.

In this case, there were 954 parents for the 954 learners within the 18 multigrade schools under study. Using the Slovin's formula at 5% margin of error, there were 282 parents who were subjected to testing for the parenting skills. This also means that there were 282 learners who were assessed in terms of their profiles and behavior. Therefore, about 16 parents and 16 learners were randomly subjected in each school for the study.

Research Instruments

The questionnaires constructed using the toolkit on Teachers Strength and Needs Assessment (TSNA-DepEd, undated) and Carno (2012) (for the teaching skills and learning environment), Form 138-E (Progress Report Card for the learners' behavior) and related various literatures (for parenting skills) were used to collect the data on the factors affecting the academic performance of the multigrade classes within the schools of Hilongos South District. There were five sets of questionnaire in this case which were answered as follows: Two for the teachers (in relation to their profiles, teaching skills and learning environment) which were answered by the school head/ supervisor, two for the learners (in relation to their profile, academic performance and behavior) were accomplished by the teachers in-charge, and one set of questionnaire each for parents. The questionnaire for the pupil's behavior was answered by the teachers.

The first set of questionnaires basically required the head teachers to indicate names, gender, educational qualification, distance from house to school, number of in-service training seminars attended, age, length of service, and performance rating of teachers handling multigrade classes within their schools. In the same questionnaire, the head teachers were also requested to rate the teaching skills of their teachers with a rating scale of 1 to 4 (low to high) based from the tabulated teaching skills with numbers 1 to 34 (Appendix C). The second set of questionnaires was on the environmental learning condition that was also answered by the head teacher. The questionnaire used the 17 teacher's competencies in learning environment of TSNA where the head teacher rated her/his teacher from 1 to 4 depending on the level of competency of the teacher under her/his school (Appendix D).

The third set of questionnaires was the learners' profile and behavior. The multigrade teacher whom the learners had attended classes was requested to provide answers. Teachers were requested to rate the pupil's behavior using the rating scale from 1 to 5 following the usual categories of pupil's behavior on Form 138 (Appendix E). The fourth set of questionnaires was on the academic performance of learners answered by the Teacher in-Charge using the rating scale of 1 to 5 which indicated specific range of grades in percent (Appendix F). The researcher made use of the Form 138-E to access the status of the academic performance of multigrade learners with the permission and assistance of the Teacher-In-Charge and the Rating Performance Appraisal System (RPAS) for teachers' performance available at the Management Information System of Hilongos South District, Division of Leyte.

The last set of questionnaires was about parenting skills. In this questionnaire, parents were requested to rate themselves based on the 15 skills of parenting enumerated using the rating scale from 1 to 4 (Appendix G).

Data Gathering Procedure

Based on the methods stipulated in the approved plan, the data were gathered by the researcher following the steps below.

1. Preliminary preparation- The researcher asked permission from the Schools Division Superintendent (SDS) to conduct her study. For reason of courtesy, the researcher likewise personally informed the Public School District Supervisor of Hilongos South District about the approval of her request and handed a copy of the same.

2. Administration of the Instrument-Thereafter, the researcher personally met the respondents bringing the approved request. She explained the objectives of the study and arranged the schedule for the distribution of questionnaires. After the conduct, the researcher personally collected the answered questionnaires. The gathered data were analyzed and interpreted using the appropriate statistical tools.

Statistical Treatment of the Data

The collected data were analyzed using descriptive and inferential statistical measures specifically frequency counts, percentages, weighted mean, and correlations using SPSS 21.0 including Pearson correlation, Mann-Whitney U and Kruskal-Wallis Tests to determine which factor/s affected the academic performance of multigrade or multigrade schools. All hypotheses were tested at .05 level of significance.

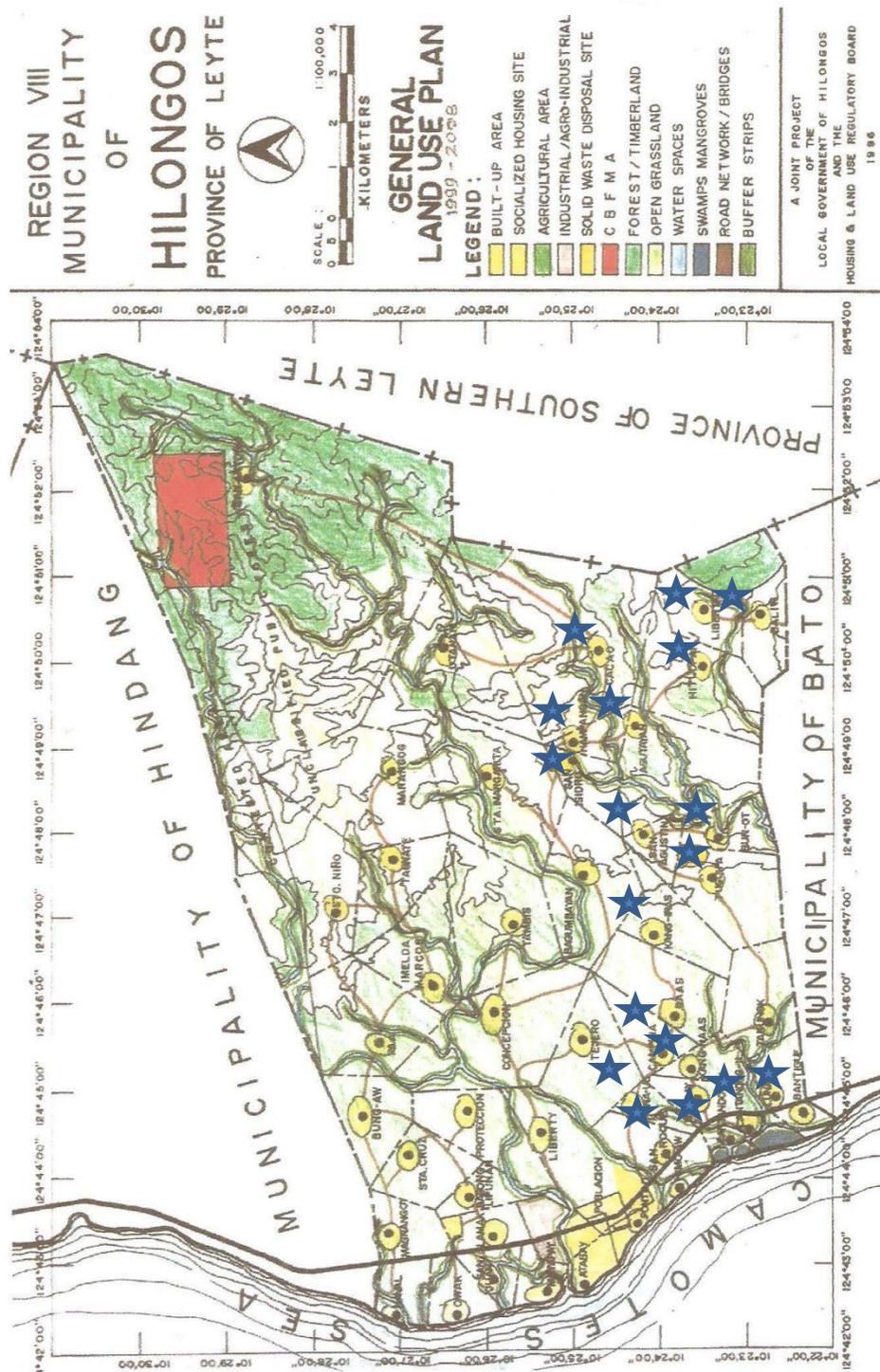


Figure 2. Map Showing the Schools Covered in this Study (marked with ★)

RESULTS AND DISCUSSIONS

1.0 Profile of Multigrade School Stakeholders

The Hilongos South District or any educational institution for that matter is composed of internal stakeholders and biophysical factors with vital roles and influences on the academic performance of multigrade classes. In this study, four major factors were considered for scrutiny by the author as presented in the conceptual framework specifically looking at the teaching skills, learners' behavior, environmental learning conditions and parenting skills. After the data gathering, the following results were presented below.

Teachers Profile

Age Frequency Distribution. Table 2 shows that within the 18 schools having multigrade classes subjected for the study, there were 29 teachers with ages ranging from 20 to 49 years old. Six teachers had ages ranging from 20-29 years old, 16 teachers within the range of 30-39 years old and seven teachers within the range of 40 to 49 years old (Table 2). This means that all the teachers at the time of the study were within their peak or most active years of service. In addition, their assignment to multigrade or multigrade classes was timely and appropriate.

Table 2. *Age Frequency of Teachers Handling Multigrade Classes at Hilongos South District*

<i>Age</i>	<i>Frequency</i>	<i>Percent</i>
20 – 29	6	20.7
30 – 39	16	55.2
40 – 49	7	24.1
Total	29	100.0

Gender/Sex of Teachers. Table 3 shows that most of the teachers handling multigrade classes in Hilongos South District were females although a number of them were males. Female teachers accounted for 79.3 % (23) of the total teaching force while 20.7% (6) were males handling these classes. This is an evidence that teaching was dominated by females.

Table 3. *Gender/Sex of the Teachers Handling Multigrade Classes*

<i>Gender/Sex</i>	<i>frequency</i>	<i>percent</i>
Male	6	20.7
Female	23	79.3
Total	29	100.0

Educational Attainment of Teachers. Table 4 exhibits the educational attainment of teachers. It shows that teachers handling the multigrade classes had Master of Arts and Bachelor’s degrees in education. Twenty-six of them had Bachelor’s degrees (89.7%) while three teachers obtained Master of Art degrees (10.3%). This finding implied that those handling multigrade classes possessed the necessary educational qualifications.

Table 4. *Educational Attainment of Teachers Handling Multigrade Classes*

Educational Attainment	<i>Frequency</i>	<i>Percent</i>
BS Degree Holder	26	89.7
MA Degree Holder	3	10.3
Total	29	100.0

In-Service Training. Table 5 presents the in-service training attended by the teachers. It shows that Hilongos South District provided in-service training to its teachers including those who were handling multigrade classes. Of the 29 teachers, one (3.4%) had an in-service training which ranged from 30-36, two (6.9%) with 24 to 29 in-service training, seven (24.1%) with 18-23 in-service training, two (6.9%) with 12 to 17 in-service training, 13 (44.8%) had 6 to 11 in-service trainings and four (13.8%) with none to five in-service trainings. Teachers handling multigrade classes thus varied in terms of the numbers of training attended which were attributed to their number of years in service. During the data gathering, teachers mentioned that they attended trainings specific for multigrade classes and other trainings, although not specific for multigrade teaching, but helped enhance their teaching skills. This finding implied that teachers handling multigrade classes were equipped with the necessary training.

Table 5. *In-service Training of Teachers Handling Multigrade Classes*

Number of in-service training	Frequency	Percent
0 – 5	4	13.8
6 – 11	13	44.8
12 – 17	2	6.9
18 – 23	7	24.1
24 – 29	2	6.9
30 – 36	1	3.4
Total	29	100.0

Length of Service. The length of service among teachers under this study varied from zero to 24 years. Eight (27.6%) of them were new who belonged within the zero to 4 years in service category, twelve

(41.1%) who served from 5 to 9 years, and one (3.4%) with more than 20 years in service (Table 6). This finding implied that they acquired enough long years of practical experiences and skills coupled with the in-service training in handling multigrade classes.

Table 6 . Length of Service among Teachers Handling Multigrade classes

Length of Service (years)	Frequency	Percent
0 – 4	8	27.6
5 – 9	12	41.4
10 – 14	8	27.6
15 – 19	0	0.0
20 – 24	1	3.4
Total	29	100.0

Teaching skills. Teaching skills were assessed based on the national competency standard used by the Department of Education. School heads or principals were requested to evaluate objectively the teachers handling multigrade classes within their schools. Below are the results showing the mean, rank and interpretations of the said evaluation (Table 7).

Of all the competencies, the skills teachers handling multigrade classes did best was on “changing question to make it more understandable when necessary” (#13), followed by #01 “informs class about the objective of every session, #07 “allows learners to actively participate in the discussion”, and #28 “observes room cleanliness.” The teachers appeared to be less skillful was on “asking questions that require higher thinking (#10). This does not mean that teachers cannot do it well, but this was driven by the level of understanding of learners. If learners have the capability to analyze difficult questions, then teachers will definitely ask questions requiring higher thinking.

However, the mean values for all teaching skills were very close to each other exemplifying that teachers were also doing well in other competencies. The overall mean of 3.45 implies that teachers handling multigrade classes were skillful enough in handling their learners (Table 7).

Table 7. Teaching Skills of Multigrade Classes

Teaching Skills	Mean	Rank	Interpretation
1. Informs the class about the objective of every lesson	3.62	3	High (H)
2. Gives discussions that are easy to understand	3.45	16	High (H)
3. Uses different ways of teaching to attract the attention of the class	3.34	28	High (H)

Table 7 continued...

4. Reviews and discusses more the difficult part of the lesson	3.38	25.5	High (H)
5. Informs the class about their scores or grades whether they passed or failed	3.59	6	High (H)
6. Integrates and teaches good values in all subjects	3.59	6	High (H)
7. Allows learners to actively participate in the discussion	3.62	3	High (H)
8. Makes the class understand the lesson by giving more examples and illustration	3.45	16	High (H)
9. Asks questions in such a way that learners will not be afraid to answer	3.31	31	High (H)
10. Asks questions that require higher thinking	3.21	34	Satisfactory
11. Directs questions to individual learners as well as to the class	3.34	28	High (H)
12. Asks questions that are easy for learners to understand	3.59	6	High (H)
13. Changes questions to make them more understandable when necessary	3.66	1	High (H)
14. Asks more questions to help learners arrive at the correct answer	3.45	16	High (H)
15. Speaks clearly and correctly	3.45	16	High (H)
16. Speaks medium of instruction for each subject as mandated	3.41	21.5	High (H)
17. Uses voice effectively- slowly to enable listeners to hear everything and softly to enhance warmth and sincerity	3.28	33	High (H)
18. Gives praises whenever learners made performance in the class	3.38	25.5	High (H)
19. Talks to learners with warmth and sincerity	3.48	12.5	High (H)
20. Uses colorful and attractive charts or pictures in class	3.31	31	High (H)
21. Prepares charts and flashcards that are easy to read	3.41	21.5	High (H)
22. Uses real objects in class	3.31	31	High (H)
23. Gives interesting reading materials to the slow learners	3.34	28	High (H)
24. Uses books and chalkboards	3.52	10.5	High (H)
25. Starts and ends lesson on time	3.41	21.5	High (H)

26. Checks the attendance regularly	3.55	8.5	High (H)
27. Observes learners' cleanliness	3.55	8.5	High (H)
28. Observes room cleanliness	3.62	3	High (H)
29. Returns test papers and assignments on time	3.52	10.5	High (H)
30. Uses the time well in class	3.45	16	High (H)

Table 7 continued...

31. Gives learners varied interesting activities	3.41	21.5	High (H)
32. Assigns learners to do tasks and monitors their behaviors	3.41	21.5	High (H)
33. Teaches in an orderly pleasant learning atmosphere	3.41	21.5	High (H)
34. Treats learners who misbehave in the class with understanding	3.48	12.5	High (H)
Overall Mean	3.45		High (H)

Learning environment. The learning environment was also assessed based on the national competency standard. Heads of schools were requested to rate their teachers based on the 17 competencies as shown on Table 7. Mean values obtained from this study ranged from 3.24 to 3.69 with overall mean of 3.46. This value showed that teachers had a high rating in terms of maintaining or creating a good environmental learning condition for learners.

Teachers did best (high rating) in terms of recognizing that every learner has strength, and maintaining a safe and orderly classroom free from distractions but with satisfactory rating on communicating and reinforcing school policies, rules, regulations, and procedures for appropriate learner behavior (Table 8).

Table 8. *The Learning Environment*

Learning Environment	Mean	Rank	Interpretation
1. Maintains a learning environment of courtesy and respect for different learners (e.g. ability, culture, gender)	3.52	4	High (H)
2. Provides gender-fair opportunities for learning	3.45	8.5	High (H)
3. Recognizes that every learner has strengths	3.69	1	High (H)
4. Maintains a safe and orderly classroom free from distractions	3.69	1	High (H)
5. Arranges challenging activities in a given physical environment	3.48	6.5	High (H)
Table 8 continued...			

6. Uses individual and cooperative learning activities to improve capacities of learners for higher learning	3.38	12.5	High (H)
7. Encourages learners to ask questions	3.41	10.5	High (H)
8. Provides learners with a variety of learning experiences	3.34	14.5	High (H)
9. Provides varied enrichment activities to nurture the desire for further learning	3.38	12.5	High (H)
10. Communicates and maintains high standards of learning performance	3.28	12.5	High (H)
11. Handles behavior problems quickly with due respect to children's right	3.41	10.5	High (H)
12. Gives timely feedback to reinforce appropriate learners' behavior	3.34	14.5	High (H)
13. Guides individual learners to the development of appropriate moral, social, and learning behavior	3.48	6.5	High (H)
14. Communicates and reinforces school policies, rules, regulations, and procedures for appropriate learner behavior	3.24	17	Satisfactory (S)
15. Encourages free expression of ideas from learners	3.62	2	High (H)
16. Creates a stress-free environment	3.45	8.5	High (H)
17. Takes measures to minimize anxiety and fear of the teacher and/or the subject	3.59	3	High (H)
Overall	3.46		High (H)

Learners Profile

Age of Learners. Learners subjected under this study had ages which ranged from 5 to 15 years old. There were 28.4% (80 individuals) within seven years old, 14.2% were eight years old, 10.4% were nine years old and only one was 5 years old (Figure 3). This data imply that learners under this study were varied with a and heterogeneous sample that represented the whole population of learners within the multigrade classes.

Sex of Learners. In this study, learners were randomly selected to represent the whole population. Results revealed that 53.6% of the learners were males while 46.4% were females (Figure 4). This data show that majority of the sample learners were males, however, the difference was only three percent which means that, gender wise, they were more or less equally represented.

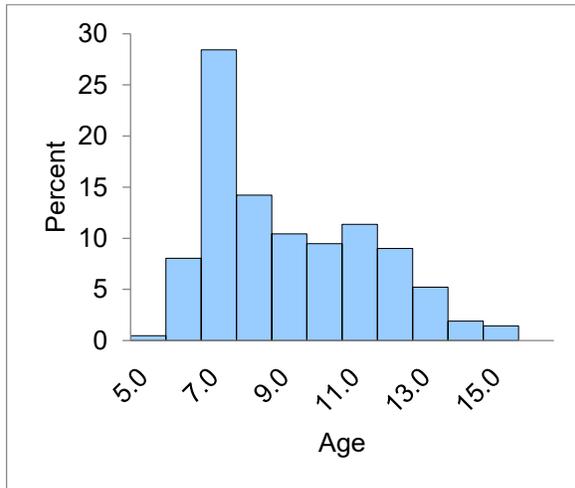


Figure 3. Ages of Learners under this Study

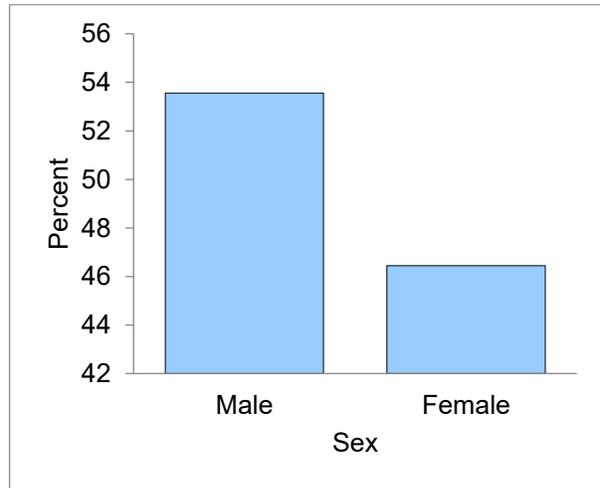


Figure 4. Sex of Learners under this Study

Nutritional status of Learners. Nutritional status used in this study was based on the records of the teachers-in-charge on age-weight-health conditions of the learners which were periodically assessed by the school health officer. Results revealed that the nutritional status of the learners subjected to this study was quite good. Ninety-seven percent of the learners had normal nutritional status, 2.4% were wasted, zero percent for overweight and only 0.5% was severely wasted (Figure 5). This finding implies that learners were in good nutritional condition and can normally perform school activities.

Distance of learners from house to school. Distance of houses from the schools was suspected to affect the academic performance of multigrade classes, hence it was included in the study. After data analysis, results showed that 76.3 % of the learners (215 individuals) were within one kilometer distance from school, 19.9% (56 learners) were within the two kilometer distance, 1.9% were within 3 km, 1.4% within 4 km distance, and only 0.5% within the 5 km distance (Figure 6). This result implied that majority of the learners were situated near the schools where they were enrolled and coming to class was not largely hampered by the distance they travel.

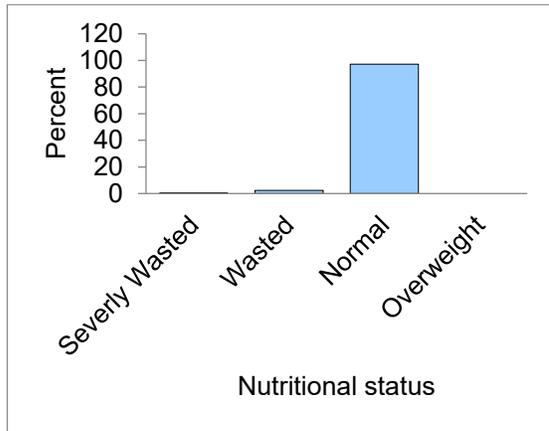


Figure 5. Nutritional Status of Learners

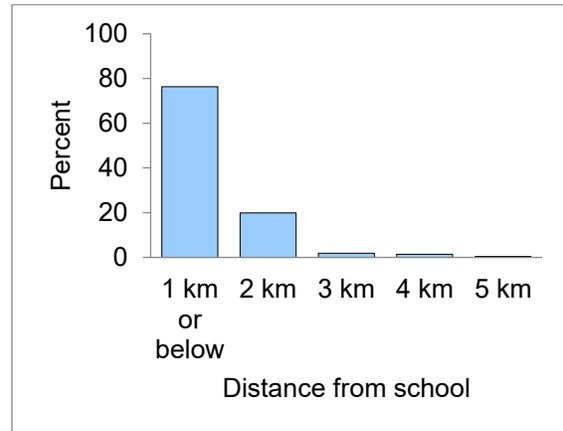


Figure 6. Distance of learners from School

Learners' Behavior. Learners' behavior in this study was determined based on the 14 behavioral categories found in Form 138. Mean values obtained from this study ranged only from 3.23 to 3.44 with overall mean of 3.35 which implies that learners had only “fair to good” rating (Table 9). This information simply shows that learners under this study had only average behavioral performance in multigrade classes. This parameter was actually difficult to accurately evaluate because it was influenced by several factors surrounding the learners.

Table 9 . *Learners' Behavior*

Learners Behavior	Mean	Rank	Interpretation
Honesty	3.44	2	Good (G) B rating
Courtesy	3.44	2	Good (G) B rating
Helpfulness and cooperation	3.30	11	Fair (F) C rating
Resourcefulness and creativeness	3.28	12	Fair (F) C rating
Consideration for others	3.23	14	Fair (F) C rating
Sportsmanship	3.26	13	Fair (F) C rating
Obedience	3.44	2	Good (G) B rating
Self-reliance	3.36	7	Fair (F) C rating
Industry	3.34	8	Fair (F) C rating
Cleanliness and orderliness	3.40	5	Fair (F) C rating
Promptness and punctuality	3.31	10	Fair (F) C rating

· Sense of responsibility	3.33	9	Fair (F) C rating
· Love of God	3.42	4	Good (G) B rating
· Patriotism and love of country	3.37	6	Fair (F) C rating
Overall	3.35		Fair (F) C rating

Profile of Parents

Ages of parents. Parents subjected to this study had ages ranging from 25 to 64 years old, 48.3% (136 individuals) of whom were 35 to 44 years old. The 16.4% were 25 to 34 years old, 28.4% were 45 to 54 years old and only 7% were 55 to 64 years old (Figure 7). This result implies that majority of the parents in this study were still in the middle ages capable enough to take good care of their children.

Educational attainment of parents. Educational attainment was also considered an important factor to influence academic performance of multigrade classes. Results revealed that 126 (44.8%) of the parents graduated from elementary school, 22.9% were high school graduates, 13.4% were in high school level, 10.4% in elementary level, 6.5% in college level and 2.0% graduated from bachelor's degree (Figure 8). Based from on this information, we may infer that parenting skills could be affected as only 2.0% of the parents graduated from college.

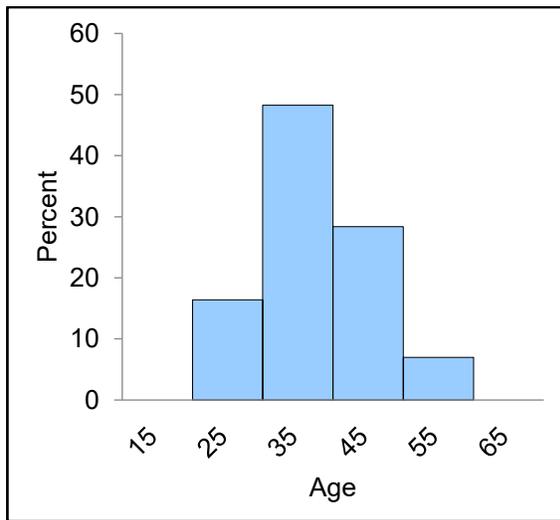


Figure 7. Age Distribution of Parents

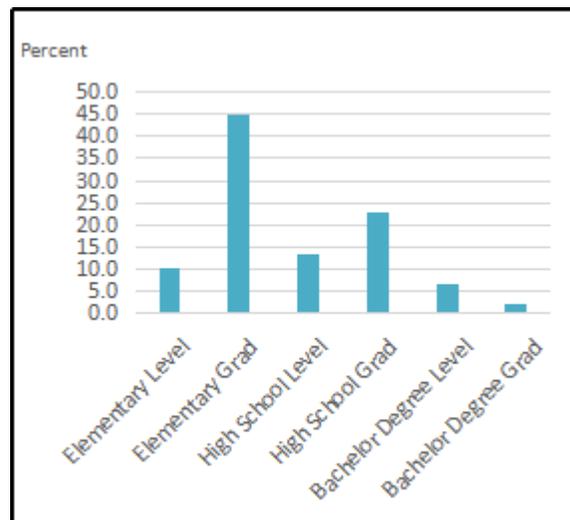


Figure 8. Parents' Educational Attainment

Occupation of parents. The occupation of parents was categorized into four major groups with closely similar incomes. Forty-eight percent of the parents (135 individuals) were farmers/fish vendors/helpers (construction or any form), 44.5% were engaged as laborer /housekeepers/housemaids, 5.5% were drivers/ carpenters/painters/dressmakers/bakers/electricians while the rest (2.0%) were factory workers/technicians/small-scale business individuals (Figure 9). These results shows that parents of learners under this study were engaged in various forms of occupations. It might be inferred that those who

had better jobs or occupation had better parenting skills compared to those who labored hard and may no longer assist learners do their assignment due to fatigue after the day’s work.

Monthly income of parents. The monthly income of parents was categorized at P20,000.00 and below up to P40,000.00 and above. Based on these categories, 65% (183 individuals) of parents fell within the P20,000.00 and below. Honestly, many of them had really low income. Thirty-two percent of the parents had monthly income range between P20,001.00 up to P30,000.00, then 2.5% with monthly income of P30,001 to P40,000.00 and only 0.5% with a monthly income of P40,001.00 and above (Figure 10). This finding implies that majority of the parents were really financially hard up and may not be able to fully support the needs of their children, especially in schools. It could be possible that those with high income had better parenting skills compared to those with low income.

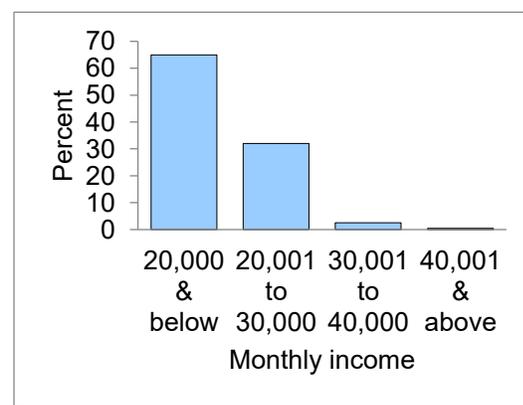
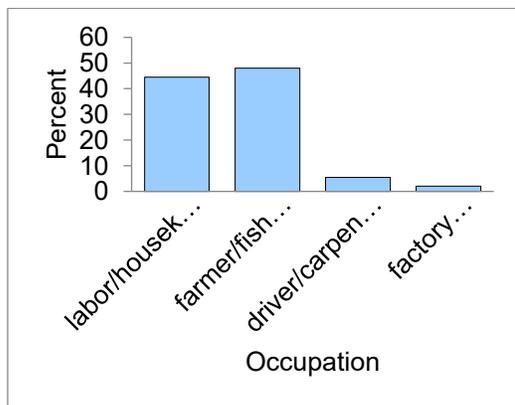


Figure 9. Occupation of Parents Figure 10. Monthly Income of Parents

Parenting Skills. Parenting skills were assessed based on the responses of parents from the 15 parameters enumerated in Table 10. Results showed that parents taught their children to respect adults and authorities (#05) followed by being consistent, firm, and fair when it came to discipline children (#01) but did less on displaying child’s school work on a wall, refrigerator, or bulletin board (#04). The overall mean was 3.02 with qualitative equivalent of being “often”. Results from this parameter showed that there were minimal efforts made by parents to teach their children on the subject matter discussed in class. Teaching our children about discipline is good but possibly helping our kids to learn more about the class assignment would further improve the academic performance of learners.

Table 10. *Parenting skills*

Parenting Skills	Mean	Rank	Interpretation
1. I am consistent, firm, and fair when I discipline my child.	3.28	2	Always
2. I teach my child to identify choices and make independent decisions.	3.12	5	Often

3. I establish family routines that include meals and study time together as well as other activities.	3.02	7	Often
4. I display my child's school work on a wall, refrigerator, or bulletin board.	2.60	15	Often
5. I teach my child to respect other adults and authority.	3.31	1	Always
6. I read and respond to information sent home regarding achievement of my child.	3.17	3	Often
7. I teach my child to tolerate differences in others.	2.83	14	Often
8. I help my child when he or she is having difficulty in school.	2.92	12	Often
9. I stress the importance of education by daily reading, checking homework, and participating in teacher conferences, open houses, and volunteering time or resources.	2.89	13	Often
10. I know my child's teachers and stay in contact with them.	3.11	6	Often
11. I make sure my child is in school and on time every day.	3.14	4	Often
12. I set aside time each day for my child to share with me what he or she has done in school.	2.96	11	Often

Table 10 continued...

13. I see that my child has sufficient rest and nutrition daily.	3.00	8	Often
14. I praise my child for his/her good behavior and efforts.	3.00	8	Often
15. I set a good example for my child by volunteering at my child's school and in the community.	2.99	10	Often
Overall	3.02		Often

2.0 Academic performance of multigrade classes

The academic performance of multigrade classes was based on the school records. Results revealed that mean ratings ranged from 75.75 to 84.71 with overall mean value of 79.94. The standard deviation is low which explains that means were not spread out or it simply tells that deviation from the mean is low. Therefore, each school had closely similar academic performances with each other based on the statistical analysis using means and standard deviation (Table 11).

Table 11. *Academic Performance of Multigrade Classes*

Academic Performance	Mean	SD
1. Agutayan ES	78.71	3.03

2. Baliw ES	79.23	3.76
3. Cacao ES	80.02	2.35
5. Hitudpan ES	78.13	3.39
6. Kang-iras ES	79.39	1.66
7. Libertad ES	81.38	2.77
8. San Isidro ES	78.18	2.27
9. Tuguipa ES	75.75	1.27
10. San Agustin ES	78.83	3.82
11. Bantigue PS	80.14	3.29
12. Bun-ot PS	81.36	1.73
13. Campina PS	84.71	1.13
14. Cantandog 1 PS	80.41	5.00
15. Cantandog 2 PS	81.26	0.63
16. Kanghaas PS	81.46	2.47
17. Mana-ul PS	80.51	1.62
18. San Roque PS	79.48	4.20
Overall	79.94	3.33

3.0 Correlations between multigrade schools profile and academic performance

Teachers' Profile. Explaining the results of the statistical analysis indeed was challenging. Age of teachers was not correlated with academic performance which implies that whether a teacher was young or old, there was no effect on academic performance of multigrade schools. Educational qualification likewise had no relationship with academic performance. This means that whether a teacher had a bachelor's or masters' degree, the academic performance of multigrade schools in Hilongos South District was not affected (Table 12).

On the other hand, in-service training had a highly negative correlation with academic performance. This is quite a confusing result considering that teachers with high number of trainings were expected to contribute towards better academic performance. It might be possible that the general weighted average (GWA) or grades of multigrade classes learners were adjusted regardless of the actual performance for unknown reasons. It could also be possible that a teacher with minimal training or knowledge on a subject matter will give higher grades to learners to avoid criticism of being strict despite having minimal knowledge while those who are very knowledgeable are strict in giving grades. Hence, it is possible that

teachers with high number of trainings would give low academic performance while those with less trainings would give higher academic performance to learners.

Teaching skills and learning environment were likewise negatively correlated with academic performance which can be explained in the same manner as the in-service training. It is daunting to note that a skilled teacher, statistically speaking, could not contribute towards the improvement of the learning environment and lead to better academic performance for which they were trained for. There was a need to look into the reliability of the academic performance in this case.

Sex of teachers was separately analyzed as an independent sample using the Mann-Whitney U test (.013 at significance level of 0.05). Results revealed that grade weighted average (GWA) and sex of teachers were significantly different. This means that the distribution of GWA was not the same across categories of teachers' sex.

Table 12. *Correlation of Teacher's Profile and Academic Performance*

Predictive Factors (Teachers Profile)	Pearson's r	P-Value
Age	.026	.665
Sex	Non-parametric	
Educational Qualification	-.073	.224
In-service Training	-.175**	.003
Length of Service	-.018	.776
Teaching Skills	-.191**	.001
Learning Environment	-.193**	.001

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Learners' Profile. The age of learners positively correlated with academic performance. This implies that older learners had a better academic performance than the younger ones. This was expected because learners gained more experiences and knowledge as they grew up. Nutritional status, distance from school and learners' behavior, on the other hand, had no significant correlations with academic performance. This means that regardless of the status of nutrition, distance from school and learners' behavior, academic performance was not affected (Table 13).

Sex of the learners was separately analysed as an independent variable using the Kruskal-Wallis test (0.464 at significance level of 0.05). Results revealed that there is no significant difference between male and female learners. This means that the male and the female pupils' performance is statistically equal evidenced in their GWA (Table 14).

Table 13. *Correlations of Learners' Profile and Academic Performance*

Predictive factors (Learner's Profile)	Pearson's r	P-value
Age	.139*	.019
Sex	Non-parametric	
Nutrition	.004	.948
Distance from school	-.015	.796
Learners' Behavior	-.024	.685

** Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Table 14. *Academic Performance of Pupils According to Sex*

Predictive factors (Learners' profile)	Kruskal-Wallis	Alpha level
Sex	0.464	0.05

Parents' profile. The analysis of parents' profile revealed another result. In this case, age of parents had a highly negative correlation with academic performance. This implies that age was not a reliable variable to predict academic performance. Educational attainment, income and parenting skills of parents were likewise not correlated with academic performance. This implies that these factors had not influenced the academic performance of multigrade schools.

The occupation of parents was separately analyzed as an independent sample using the Kruskal-Wallis test (.217 at significance level of 0.05). Results revealed that GWA and occupation of parents were not significantly different. This means that the distribution of GWA was the same across categories of the parents' occupation (Table 15).

Table 15. *Correlations of Parents' Profile and Academic Performance*

Predictive factors (Parents' Profile)	Pearson's r	P-value
Age	-.139**	.019
Educational Attainment	.084	.162
Occupation	Non-parametric	
Income	-.015	.798

Parenting skills .047 .427

** Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

4.0 Policy Recommendation

Below are the proposed policy recommendation based on the findings revealed in the study:

Findings	Policy Recommendation
1. There is a significant relationship (highly-negative correlation) between teachers' in-service training and academic performance of MG schools	The administration may consider balanced distribution of in-service training to its faculty. In addition, the head of office may design training to rate or grade pupils objectively and carry out non-biased assessment and evaluation.
2. There is a significant relationship (highly-negative correlation) between teachers' teaching skills and academic performance of MG schools.	The administration may consider strategic approach to translate outstanding teaching skills into outstanding MG academic performance.
3. There is a significant relationship (highly-negative correlation) between teachers' learning environment and academic performance of MG schools.	The school may intend to reconfigure the learning environment that fits individual learning needs, not a one-key-fits-all definition of conducive learning environment.
4. There is a significant relationship (highly positive correlation) between the learner's age and academic performance.	The school may consider crafting a comprehensively designed - learning opportunities to both old and young pupils for a no-child-left-behind education for all.
5. There is a significant relationship (highly negative correlation) between the parent's age and academic performance.	The administration may design a strategy that older parents will be encouraged to be involve over their pupil's learning.

Summary

The main purpose of this study was to determine the correlations of academic performance of multigrade schools in Hilongos South District, Leyte Division with the profiles of teachers, learners, and parents. It sought to determine the profile of teachers (i.e. age, sex, educational qualifications, seminars attended, length of service, teaching skills, and learning environment), learners (age, sex, nutritional status, distance from school, and behavior), and parents (age, educational attainment, occupation, income and parenting skills) and correlate these with academic performance.

Findings

The study revealed that the 18 schools having multigrade classes subjected for the study had 29 teachers with ages ranging from 20 to 49 years old. Six teachers had ages ranging from 20-29 years old, 16 teachers within the range of 30-39 years old and seven teachers within the range of 40 to 49 years old. Female teachers accounted for 79.3 % (23) of the total teaching force while 20.7% (6) were males handling these classes. Eight (27.6%) of them were new who belonged within the zero to 4 years in service category, twelve (41.1%) who had served from 5 to 9 years, and one (3.4%) with more than 20 years in service.

Learners subjected under this study had ages which ranged from 5 to 15 years old. Results revealed that 53.6% of the learners were males while 46.4% were females. Ninety-seven percent of the learners had normal nutritional status, 2.4% were wasted, zero percent for overweight and only 0.5% was severely wasted and mostly residing within one kilometer from the school. The ages of parents, on the other hand ranged from 25 to 64 years old, with 126 (44.8%) of the parents who graduated from elementary school, 22.9% high school graduates, 13.4% were in the high school level, 10.4% elementary level, 6.5% college level and 2.0% graduated with bachelor's degree.

The skills where teachers handling multigrade classes did best was on “changing question to make it more understandable when necessary” (#13), followed by #01 “informs class about the objective of every session, #07 “allows learners to actively participate in the discussion”, and #28 “observes room cleanliness. Mean values for learners' behavior obtained from this study ranged only from 3.23 to 3.44 with overall mean of 3.35 which implied that learners have only “fair to good” rating. In addition, the mean values obtained learning environmental conditions from this study ranged from 3.24 to 3.69 with overall mean of 3.46. Results for parenting skills showed that parents taught their children to respect adults and authorities (#05) followed by being consistent, firm, and fair when it comes to discipline children (#01) but did less on displaying child's school work on a wall, refrigerator, or bulletin board (#04).

The age of teachers did not correlate with academic performance which implied that whether a teacher was young or old, there was no effect on academic performance of multigrade schools. Educational qualification likewise had no relationship with academic performance. On the other hand, in-service training had highly negative correlation with academic performance. Teaching skills and learning environment likewise negatively correlated with academic performance which can be explained in the same manner as the in-service training. The sex of teachers was separately analyzed as an independent sample using the Mann-Whitney U test (.013 at significance level of 0.05) which revealed that the distribution of grade weighted average was not the same across categories of teachers' sex.

The age of learners positively correlated with academic performance. Nutritional status, distance from school and learners' behavior, on the other hand, had no significant relationship with academic performance. Results also revealed that learners sex was not significantly different with GWA.

The age of parents had a highly negative correlation with academic performance. Educational attainment, income and parenting skills of parents were likewise not correlated with academic performance.

Occupation of parents was separately analyzed as an independent sample using the Kruskal-Wallis test (.217 at significance level of 0.05). Results revealed that the distribution of GWA was the same across categories of the parents' occupation.

Conclusions

The correlations of academic performance of multigrade schools as influenced by profile of internal stakeholders in Hilongos South District was the focus in this study. There were profiles of teachers, learners

and parents that could affect academic performance qualitatively speaking. However, there was a need to dig deeper on the various profiles of multigrade schools that were suspected to affect academic performance based on the statistical standpoint. The various parameters involving the profiles of teachers, learners, and parents did not show high correlation results except for the age of learners.

Recommendations

Based on the findings from the study, the following recommendations are presented as follows:

1. The administration of Hilongos South District may consider balanced distribution of in-service training to its faculty. In addition, the head of office may design training to rate or grade pupils objectively and carry out non-biased assessment and evaluation.
2. The administration of Hilongos South District may consider strategic approach to translate outstanding teaching skills into outstanding MG academic performance.
3. The Multigrade schools within Hilongos South District may intend to reconfigure the learning environment that fits individual learning needs, not a one-key-fits-all definition of conducive learning environment.
4. The Multigrade schools may consider crafting a comprehensively designed - learning opportunities to both old and young pupils for a no-child-left-behind education for all.
5. The administration may design a strategy that older parents will be encouraged to be involve over their pupil's learning.

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