# CORRELATES OF PERFORMANCE OF PUPILS IN THE MONOGRADE AND MULTIGRADE CLASSES IN THE DISTRICTS OF WRIGHT I AND II

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Vim

# DEDICATION

To my ever loving husband

BRANDY

and our children

Yancy

Chocoy

and

Igi

this work is humbly dedicated.

Vim

#### **ABSTRACT**

This study attempted to determine the factors related to the performance of pupils in the monograde and multigrade classes in Wright I and II Districts, Division of Samar. The study employed the descriptive-correlational method of research using the questionnaire and achievement test as the principal instruments in gathering the necessary data. The comparative analysis made on the performance of the monograde and multigrade classes in this learning area was rejected. As the comparative analysis indicated, monograde pupils performed better than the multigrade pupils in six out of seven tested. They performed just as well as the multigrade pupils in EPP. It could be explained by the fact that teaching in one-grade classes was more focused than in two or more-grade classes. Among the teacher-related variates, age, educational background, teaching experience and training attended were the correlated of monograde pupils' achievement. Of the school-related variates, school distance, type of school location and adequacy of facilities were correlates of monograde pupils' achievement. The pupilrelated variates that were found to be the correlates of multigrade pupils' achievement were their age, attitude towards schooling, study habits, and educational attainment of parents. Among the teacher-related variates, age, educational qualification, attitude towards multigrade teaching, lesson mastery, teaching experience and training attended were the correlates of multigrade pupils' achievement. Along school-related variates, the correlates of multigrade pupils' achievement were school distance, type of school location and adequacy of facilities.

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# Chapter 1

# THE PROBLEM AND ITS BACKGROUND

# Introduction

The main thrust of the Bureau of Elementary Education is to provide access, progress and quality in elementary education. It formulates and implements key programs and projects in order for every citizen to acquire basic preparation that will make him enlightened, disciplined, nationalistic, self-reliant, God loving, creative, versatile and productive member of national community.

Basic education in the Philippines is mandated to be free and compulsory for all Filipino children. Inspite of this constitutional provision, however, basic education is still unattainable due to poverty, distance between home and school, unstable peace and order situation as well as the strict requirements of the Department of Education to enroll 30-40 pupils in a monograde class. This monograde structure, which requires a standard number of children for the organization of lockstepped grade level, has kept many young Filipinos from getting what ought to be their inalienable right, the right to quality education.

Statistics show that participation rate in the elementary sector is already 95 percent, but clearly there

is still five percent of the elementary level aged population who are not reached by the formal schooling system (Multigrade News, October 1998:8). There is a possibility that this five percent are partly the disadvantaged group of the population residing in isolated barangays or the indigenous peoples or nomadic people who should be provided access to all levels and forms of education provided by the state.

Democratic dialogues for people empowerment have included an agendum on how to fulfill the ideal access to quality education for all Filipinos through alternative educational structures. In this regard former Secretary Armand Fabella of the Department of Education, Culture and Sports (DECS), through Department Order No. 38, s. 1993, introduced the importance of a particular class organization, namely, the multigrade class.

Multigrade classes are viewed as a viable means of providing primary education to as many Filipino children as possible. Thus, the efforts to address the special needs of multigrade classes and to improve the quality of instruction in multigrade classrooms have began in the form of investments and the development of learning materials appropriate for multigrade classes (Multigrade Teacher's

Handbook, 1994:3).

A multigrade classroom involves, children of different ages and developmental levels and with different skills and abilities learning together under one teacher. It permits the children to learn actively and respectively, working independently, through the various experiences that suit their abilities. It empowers the teachers to work beyond the bounds that limit their creativity. Hence, in providing quality education that is accessible to a majority of disadvantaged children in rural and isolated villages in the country, the Multigrade Program breaks the barrier that hinders the children's progress as individuals and serve as their only bridge to education and literate future.

In the districts of Wright I and II, multigrade classes have been organized in the barangays where the number of children to be enrolled cannot meet the required number to organize a monograde class and, therefore a teacher cannot be assigned to it. However, no study so far has been conducted in the district relative to the performance of these multigrade classes.

The researcher was motivated to conduct a study on correlates of the performance of monograde and multigrade

classes in the Districts of Wright I and II to prove if this DepEd program to attain access and its mandate of helping provide quality elementary education to its clients is very much worthwhile. More so that the researcher is handling a multigrade class and her quest is to stay committed and provide quality instruction for her pupils, paving the way for her continuing support for multigrade program. For her, this is both a professional and moral obligation. Hence, this investigation.

# Statement of the Problem

This study attempted to determine the factors related to the performance of pupils in the monograde and multigrade classes in Wright I and II Districts, Division of Samar. Specifically, it sought to answer the following questions:

- 1. What is the profile of the following respondents in terms of:
  - 1.1 Monograde/Multigrade Pupils
    - 1.1.1 age and sex;
    - 1.1.2 attitude towards schooling;
    - 1.1.3 study habits;
    - 1.1.4 parents' educational attainment; and
    - 1.1.5 parents' monthly income?

- 1.2 Monograde/Multigrade Teachers
  - 1.2.1 age and sex;
  - 1.2.2 civil status;
  - 1.2.3 educational qualification;
  - 1.2.4 attitude towards multigrade teaching;
  - 1.2.5 lesson mastery for multigrade teaching;
  - 1.2.6 teaching experience; and
  - 1.2.7 in-service training attended?
  - 1.3 School
    - 1.3.1 distance from home;
    - 1.3.2 type of school; and
    - 1.3.3 adequacy of facilities, instructional
       materials, textbooks?
- 2. What are the mean scores of the pupils in monograde and multigrade classes in the elementary schools in Wright I and II Districts based on the Division Achievement test in English, Mathematics, Science and Health, Filipino, Sibika at Kultura?
- 3. Do the mean scores of the pupils in monograde and multigrade classes differ significantly in the aforesaid learning areas?
- 4. Is the achievement of the pupils in monograde and multigrade classes significantly related to the following:

- 4.1 Pupil-related variates
  - 4.1.1 age and sex;
  - 4.1.2 attitude towards schooling;
  - 4.1.3 study habits;
  - 4.1.4 parents' educational attainment; and
  - 4.1.5 parents' monthly income?
- 4.2 Teacher-related variates
  - 4.2.1 age and sex;
  - 4.2.2 civil status;
  - 4.2.3 educational qualification;
  - 4.2.4 attitude towards multigrade teaching;
  - 4.2.5 lesson mastery for multigrade teaching;
  - 4.2.6 teaching experience; and
  - 4.2.7 in-service training attended?
- 4.3 School-related variates
  - 4.3.1 distance from home;
  - 4.3.2 type of school; and
  - 4.3.3 adequacy of facilities, instructional materials, textbooks?
- 5. What policy redirection for multigrade teaching may be recommended based on the findings of the study?

# Hypotheses

The hypotheses which this study aimed to test were:

- 1. The mean scores of the pupils in monograde and multigrade classes in the achievement test do not differ significantly by learning areas.
- 2. The achievement of the pupils in monograde and multigrade classes is not significantly related to:
  - 2.1 Pupil-related variates
    - 2.1.1 age;
    - 2.1.2 sex;
    - 2.1.3 attitude towards schooling;
    - 2.1.4 study habits;
    - 2.1.5 parents' educational attainment; and
    - 2.1.6 parents' monthly income?
  - 2.2 Teacher-related variates
    - 2.2.1 age;
    - 2.2.2 sex;
    - 2.2.3 civil status;
    - 2.2.4 educational qualification;
    - 2.2.5 attitude towards multigrade teaching;
    - 2.2.6 lesson mastery for multigrade teaching;
    - 2.2.7 teaching experience; and
    - 2.2.8 in-service training attended?
  - 2.3 School-related variates
    - 2.3.1 distance from home;

- 2.3.2 type of school; and
- 2.3.3 adequacy of facilities, instructional
   materials, textbooks?

# Theoretical Framework

This study is anchored on the Philippine Education For All thrust on Universal Quality Primary Education which ensure that there would be universal basic t.o education of appropriate standards by addressing the access, equity, quality, relevance and sustainability concerns relative to the flow of students into and within the system. EFA efforts were to be directed towards bringing basic education to the rural poor, the urban slums, cultural communities, refugees, women, the disabled, and other educationally disadvantaged groups. In support of this policy, DepEd issued a number of directives to intensively undertake specific interventions aimed at increasing the holding power of schools. One of these is the completion of incomplete elementary schools by organizing combination and or multigrade classes (Report on Philippines Country EFA Assessment, DECS).

The Delors Theory on the foundation and the aims of education also underlied this investigation. It stresses that education be constructed around four pillars, namely:

learning to know, learning to do, learning to be and learning to live together (World Conference on Higher Education, 1998).

The first pillar is learning to know. This means more than learning a specific body of knowledge. It demands an approach to learning itself, to understanding how to master the instruments for using knowledge, and how to exercise one's critical faculties, curiosity, and of course memory.

Learning to do is not only concerned with the acquisition of skills, but also with the application of knowledge and with a set of competencies that are broadly termed "life skills." It is here that early on, thinkers such as Dewey, Faure and Grundtvig, have shown the way. They and other thinkers have constantly sought to link learning with doing. They have emphasized breaking down the barriers between intellectual and practical knowledge by insisting on the need for all learners to undertake both intellectual and manual activities.

The third pillar, learning to be means encouraging the fullest development of the creative potential of each individual, in all its richness and complexity. In other words, education is first of all an inner journey, that leads to the construction of one's personality.

Learning to live together means more than tolerating others. It means wishing to understand others, to live together in mutual respect. If we wish, through education, to learn to live together, we must reflect on the way in which history, geography, languages, philosophy are taught. We must examine the way in which educational establishments themselves function and interact with the community. We must be aware of the importance of example and rely on the conviction of teachers, whose function as role models is so important in the transmission of attitudes and values.

These four pillars, then aim to place on equal footing the development of the individual and the individuals' place in society. They aim to emphasize the equal importance of the intellectual and the practical, and to breakdown what can be an excessive separation between the role of the hand and the role of the mind.

UNESCO favours broad decentralization of educational systems, which favours innovation and democratic participation and which promotes "Learning Without Frontiers." This kind of education aims to eliminate all sorts of boundaries of education, be the age, race or other limitations and promotes community base lifelong education.

Education is a public good, not to be left to the marketplace. The whole society rich or poor must benefit from education and have, equality of opportunity to participate in quality education. It involves a variety of actors in itself - a teaching and learning process, whereby the learners can also teach, and the teachers can show that they learn.

# Conceptual Framework

The schema that follows conceptualizes the entire body. It takes into account the important role of the different variables in attaining the expected outcomes of the study.

The base of the schema represents the research environment which is the elementary schools of the Districts of Wright I and II from where the sample respondents were taken.

As the framework proceeds to next bigger box, the research process to be undertaken is reflected. The two boxes on the left depict the achievement of the monograde classes and achievement of multigrade classes. The two-way arrow between indicators assessed the comparison of the achievement of both groups in terms of mean percentage scores. This preliminary data revealed some merits and

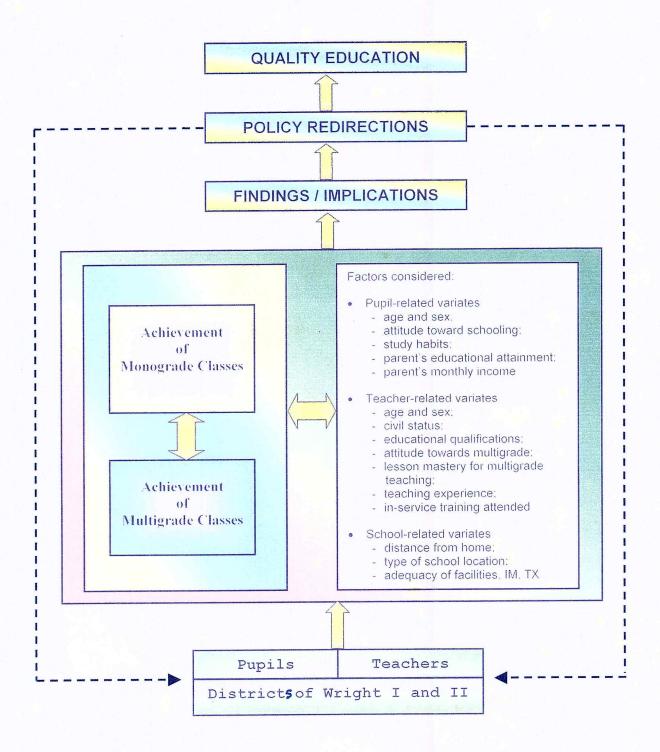


Figure 1. Conceptual Framework of the Study

demerits of the monograde and multigrade classes. In the right box are the factors that may affect achievement of pupils. These are categorized as: pupil-related variates like age and sex, attitude towards schooling, study habits, and parents' educational attainment and monthly income; teacher-related variates such as age and sex, civil status, educational qualification, attitude towards multigrade teaching, lesson mastery for multigrade teaching, teaching experience and in-service training attended; and schoolrelated variates such as distance from home, type of school location, and adequacy of facilities, IM and TX. identified variates were correlated with pupil achievement in both types of school which eventually revealed those that significantly affected achievement. The data were analyzed and interpreted in order for the researcher to recommend policy redirections for the implementation of the multigrade program.

Finally, the top box represents the very goal of the research which is the attainment of quality education.

# Significance of the Study

This study on correlates of the performance of pupils in monograde and multigrade classes in the Districts of Wright I and II was undertaken by the researcher with the

hope that the findings would be beneficial to the pupils, teachers, school administrators, parents and community, school system and to future researchers.

To the pupils. The study would expose the pupils to different strategies and environmental conditions. They are given the maximum social interaction between and among peers; learn to be independent, self-directed, resourceful, prepared to face real-life situations and learn to assume leadership or supportive role as they are needed in different work situations.

To the teachers. The results of this study would give opportunity for the teachers to gain more insights on how to prepare their pupils for remedial as well as enrichment activities. Furthermore, this study would direct them which learning areas would be given focus to effect quality instruction. Foremost, suggestions on how to handle multigrade classes which is one of the objectives of this study would help the multigrade teachers a lot.

To school administrators. Findings of this study may prompt them to initiate closer monitoring of classes particularly in multigrade and be generally supportive in dealing with the different problems encountered by multigrade schools.

To the school system. Better implementation of the Education for All is expected. It would boost enrollment in schools. Practices would be improved knowing the factors that affect the performance of pupils in monograde and multigrade classes.

To the parents and community. This study may give access to children who may not be able to avail of educational opportunity. It would encourage parents and the community to have their children enroll and participate school activities knowing that their children were taken care of in schools.

To future researchers. This would encourage them to conduct a follow-up study and annotations on the evaluation of the multigrade program and make new findings on the development of multigrade instructions.

# Scope and Delimitation

The study assessed the performance of pupils in monograde and multigrade classes learning areas as English, Mathematics, Science and Health, Filipino and Sibika at Kultura in the Districts of Wright I and II, Division of Samar and determined the factors related with their performance. These factors were categorized as: pupil-related (age, sex, attitudes toward schooling, study

habits); teacher-related (age, sex, civil status, educational qualification, attitude towards MG, teaching mastery for MG); and school-related (distance from home, type of school location, adequacy of facilities, IM, TX).

This study involved 15 multigrade schools, two of which were complete elementary schools and 13 incomplete elementary schools and six monograde schools which served as comparison. Also, it utilized 66 teachers and 1,472 pupils to a total of 1,538 respondents.

The study was conducted during SY 2001-2002.

# Definition of Terms

For a clearer understanding of this study, the following terms are hereby defined.

Achievement. This refers to the accomplishments of proficiency of performance level in a given skill or body of knowledge, skills, values, etc. in a given field taught in school (Good, 1972:7). In this study, it refers to the performance of the pupils in monograde and multigrade classes based on an achievement test.

Achievement Test. This is a test designed to measure the performance of monograde and multigrade classes in a given field taught in school.

Carline school. In this study, it refers to a school

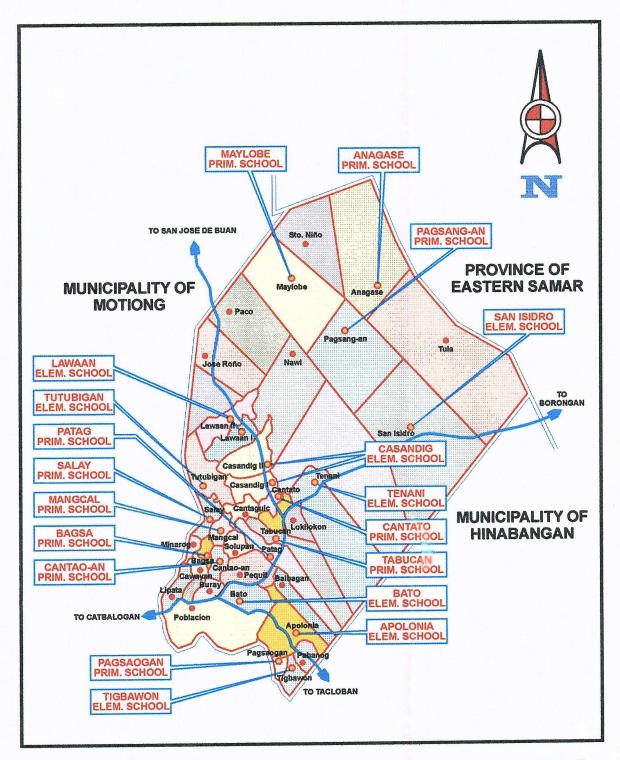


Figure 2. Map of the Municipality of Paranas (Wright) showing the location of the different elementary schools included in the study.

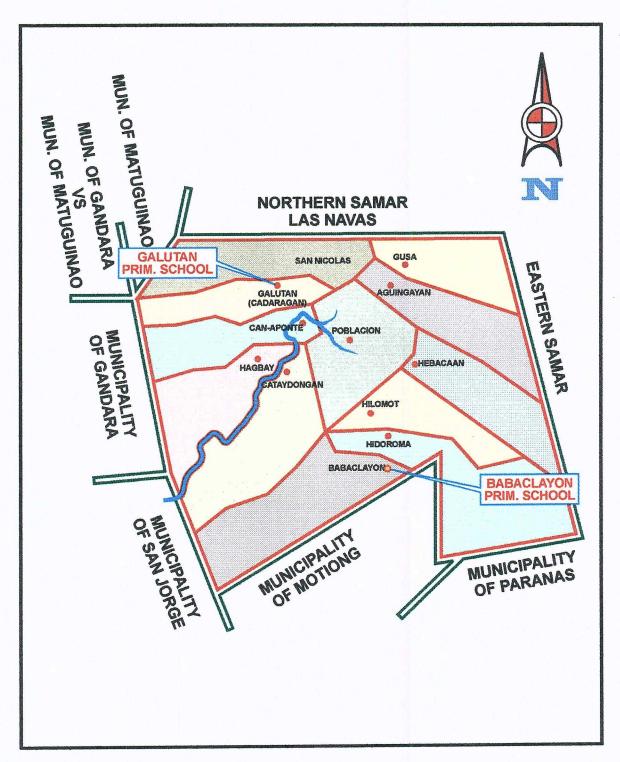


Figure 3. Map of the Municipality of San Jose de Buan showing the location of the different elementary schools included in the study.

located along the Maharlika highway or provincial dirt road which is accessible to land transportation like bus, public utility jeepney, motorized tricycle and the like.

Correlation. This refers to the act of bringing under relation of union or interaction (Webster, 1995:292). In this study, it refers to the reciprocal relation of the achievement of monograde and multigrade classes in the of Wright I and II based on the achievement test and districts the relationship of their achievement with predetermined pupil-, teacher- and school-related variables.

**Evaluation**. It is a process of ascertaining or judging the value or amount of something using a standard appraisal (Good, 1973:220). In this study, it refers to the assessment of the pupils performance coming from monograde and multigrade classes and the factors that affect it.

Lesson mastery. It refers to the knowledge or skill gained by experience (Webster, 1995:784). In this study, lesson mastery refers to the extent to which the monograde or multigrade teachers exhibit mastery of the subject matter or lesson which they are going to teach. This is measured by means of indicators of lesson mastery which the teacher-respondents rated using five-point scale: 5 for

extremely mastered, 4 for highly mastered, 3 for moderately mastered, 2 for slightly mastered and 1 for not mastered.

Lock-step grade level. As used in this study, it refers to the grade level or step in which every school children has to follow when he enters school, e.g., a learner must pass grade one before he could enroll grade two.

<u>Lowland school</u>. In this study, it refers to a school located in a plain but can only be reached by walking or hiking.

Mean Percentage Score (MPS). It is the expression of the result of the scores in a test. It is obtained by dividing the mean of the group by the highest possible score (HPS) times one hundred.

<u>Monograde class</u>. It refers to a class composed of pupils in one grade level under one teacher (DECS-BEE, 1995).

<u>Mountain school</u>. In this study, it refers to a school located in a hilly or mountainous terrain which can only be reached through hiking or walking.

<u>Multigrade class</u>. It refers to a class of two or more grades under one teacher in a complete or incomplete elementary school (DECS-BEE, 1995).

Multigrade schools. These are schools which have classes that combine pupils/students of different ages, abilities and grade in one classroom (The Modern Teacher, 1997:404). In this study, it refers to schools like Apolonia Elementary School, San Isidro Elementary School, Pagsaogan Barangay School, Patag Barangay School, Tabucan Barangay School, Cantao-an Barangay School, Mangcal Primary School and all the cluster schools of San Jose de Buan under Wright II.

Performance. It refers to the actual accomplishments as distinguished from potential ability (Good, 1978:414). In this study, performance refers to the actual performance in monograde and multigrade classes as indicated by their mean scores in the Division Achievement Test.

Pupil-related variates. In this study, this term refers to the factors that may significantly affect achievement of pupils such as age and sex, attitude towards schooling, study habits, parents educational attainment and parents monthly income.

Rural. This is pertaining to the country as distinguished from the city or the town (Webster, 1995:1102). In this study, rural refers to the school

location where multigrade classes are existing. It is usually a barangay/barrio or sitio.

School distance. It refers to the length of separation in space or by extension in time (Webster, 1995:370). In this study, school distance refers to the distance from the home of children to school expressed in meters.

School location. It refers to the exact location in space or place (Webster, 1995:747). In this study, school location refers to the location of the school under Wright I and II. It may be carline, mountainous, lowland or seacoast.

<u>School-related variates</u>. In this study, this term refers to the factors related with school which may greatly influence pupils' attendance in school and participation in school activities that eventually affect their achievement. These are categorized as distance from home, type of school location and adequacy of facilities, IM, TX.

<u>Seacoast</u>. It is pertaining to the seashore or line of a coast (Reference Dictionary, Vol. 2:745). In this study, seacoast school refers to Tigbawon Elementary School and Pagsaogan Barangay School.

Study habits. It refers to the conduct or behavior of

studies (Webster, 1995:412). In this study, study habits refers to the behavior and conduct of pupils in studying a subject. These are expressed in behavior indicators from which the respondents assessed themselves.

Teacher-related variates. As used in this study, this term refers to factors that characterize the teachers which may affect achievement of pupils. These are categorized as age and sex, civil status, educational qualification, attitude towards multigrade teaching, lesson mastery for multigrade teaching, teaching experience and in-service trainings attended.

<u>Urban</u>. It refers to a place situated or dwelling in a town or city (Reference Dictionary, Vol. 2:901). In this study, urban refers to the school location where most monograde classes are offered. It is usually a town or municipality.

# Chapter 2

# REVIEW OF RELATED LITERATURE AND STUDIES

This chapter contains the presentation of literature and studies reviewed by the researcher which provided her sufficient background information on the variables involved in the conduct of the present study.

# Related Literature

The multigrade program in the Philippine Education is an education delivery to democratize access to improve the quality of elementary education through the completion of incomplete school and the organization of multigrade classes. Thus, a multigrade class is referred to as: 1) a class consisting of two or more grades handled by one teacher; 2) is generally opened in primary school located in distant sparsely populated areas; and 3) is usually opened in areas where the number of enrollees for each grade level does not warrant to opening of single grade class (MPPE, DECS, BEE, 1998).

In multigrade classrooms, teachers teach across several curriculum grades at the same time and is extremely common in developing countries. Yet, in many systems of

education, where monograde classes are the norm, the multigrade classroom and the needs of the multigrade teachers are often unrecognized (Anderson, 1992:3).

The multigrade classroom poses a paradox. For children to learn effectively in a multigrade environment, teachers need to be well trained, well-resourced and hold positive attitudes to multigrade teachings. However, many teachers in multigrade environments are either untrained or trained in monograde pedagogy; have few, if any, teaching/learning resources; and regard the multigrade classroom as a poor cousin of the better-resourced monograde classroom found in large, urban schools and staffed by trained teachers.

Teacher's perception of the multigrade classroom reflects academic and professional hierarchies which legitimize some types of pedagogic knowledge and practices as more valuable than others. It is symptomatic of both academic and professional hierarchies that the realities facing the multigrade teachers barely warrant to mention in international and national education research agenda, in teachers education curriculum, in curriculum or assessment studies of curriculum, in priorities attached training

scholarship, in manuals of training methods and in education information networks.

In United States, the multigrade classroom is an organizational pattern widely used in schools. Study shows that in 1918, there were 196,037 one-room schools, representing to 8 percent of all public schools in the United States. By 1980, less than 1,000 of these schools remained (Muse, Smith, and Barker, 1978:12). But the multigrade classroom persists. In a study consisting of multigrade classrooms of only two grades, Rule (1983) used a sample from a suburban district outside Phoenix, Arizona. Of the 21,000 elementary students in the district, approximately 17 percent were in classroom that combined grades. In rural, small elementary schools the incidence of students served in multigrade classroom may well be much higher.

In Peru, primary multigrade schools is approximately 21,500. Ninety six percent of which are located in rural areas. In terms of teachers, 41,000 teach in rural primary schools with multigrade classroom representing 69 percent of the total rural teaching force. Most of the schools in the countryside are multigrade (89 percent), which testifies to the importance of this type of school for

improving the educational level of the rural population (Education and International Development [EDI] Research, 1999:2).

Multigrade teaching in Sri Lanka is much more common than we care to realize or admit. It is common in rural and plantation schools where they have very little human and physical resources. A range of reason for multigrade teaching could be identified in the Sri Lankan context, the most significant reason being non-availability of one teacher per grade in these schools. The difficulty in access, sparse pupil population which restricts the appointment of one teacher per grade and difficult living conditions are the major factors contributing teachers scarcity.

There are a lot of forms of multigrade classes in Vietnam, with two, three, four or five different levels in any one class. So far, multigrade schools are quite widely used in ethnic minority areas with the purpose of providing primary education to disadvantage children by bringing school closer to communities were children live. Now, there are 2,162 primary school with multigrade classes, accounting for 1.8 percent of total primary school and

there are 143,693 students learning in multigrade classes, similarly to 1.38 percent of the school population.

There are multigrade schools in countries of the developing world like the Philippines, China, Malaysia, India, Bangladesh, Colombia, Mexico, Paraguay, Brazil, Gambia, Mauritania, Lesotho, Botswana, Senegal, Zaire and countries in the Pacific Islands. They exist to provide quality educational services to rural areas (The Multigrade Teacher Handbook, 1994:2).

Multigrade schools were actually the first kind of schools in North America. The one-room school house was the most common model of formal educational programs for elementary school children before the 1800's when large scale industrial revolution brought about urbanization and other changes in the countries in North America. It was then that the single grade classes were organized to make it easier to manage students as they were divided or classified according to age and grades. Singlewere developed to accommodate larger grade classrooms numbers of students rather than to design an educational delivery system that could meet individual needs of single-grade classroom was already the The students. predominant model introduced to the Philippines by the Americans in the 1900's. However, early mission schools in the Philippines before the Americans introduced the public school system, were already organized as multigrade schools.

Today multigrade schools are still considered important in many suburban and rural parts of North America and Europe. They provide quality educational programs in rural parts of Scotland, Britain, the Scandinavian countries, France, the Netherlands, Canada and the United States. In these countries, the small villages and towns consider the multigrade schools as better alternatives to maintaining single grade schools (Thomas and Shaw, 1992:172).

The multigrade classroom can be more of a challenge than the single grade classroom. Skills and behavior required of the teacher may be different (Callahan, 1962). At first look, the skills needed to teach well in the multigrade and the single grade classroom appear to be quite similar. The differences between the two sorts of classroom may be more a product of socialization and expectation than the fact. Clearly, if a teacher in either sort of classroom fails to address differences among students, the effectiveness of instruction suffers.

Likewise, teachers are harmed when they have not been adequately prepared to teach students with varying ages and abilities no matter what sort of classroom they work in.

Six key instructional dimensions affecting successful multigrade have been identified from multigrade classroom research (Miller, 1991:14). Each of this points has some bearing on the related issues of independence and interdependence. It is important to cultivate among students the habit of responsibility for their own learning, but also their willingness to help one another learn.

- 1. Classroom organization: Instructional resources and the physical environment to facilitate learning.
- 2. Classroom management and discipline: Classroom schedules and routines that promote clear, predictable instructional patterns, especially those that enhance student responsibility for their own learning.
- 3. Instructional organization and curriculum: Instructional strategies and routine for a maximum of cooperative and self directed students learning based on diagnosed students needs. Also include the effective use of time.

- 4. Instructional delivery and grouping: Methods that improve the quality of instruction, including strategies for organizing group learning activities across and within grade levels.
- 5. Self directed learning: Students skills and strategies for a high level of independence and efficiency in learning individually or in combination with other students.
- 6. Peer tutoring: Classroom routine and students skills in serving as "teachers" to other students within and across different levels.

Instructional grouping practices also play an important role in a multigrade classroom. The teacher emphasizes the similarities among the different grades and teaches to them, thus conserving valuable teacher time. For example, whole-class (cross-grade) instruction is often used since the teacher can have contact with more students. However, whole-class instruction in the effective multigrade classroom differs from what one generally finds in a single-grade class.

Multigrade teachers recognize that whole class instruction must revolve around open task activities if all students are to be engaged. For example, a teacher can

introduce a writing assignment through topics development where all students "brainstorm" ideas. In this context, students from all grades can discuss different perspective. They can learn to consider and respect the opinions of others (Miller, 1989:15).

While the goals of education remains intact, the means of achieving these goals are changing. Teachers need professional preparation for teaching in the multigrade environment. Rather than simply applying curricular and instructional strategies of the single-grade classroom, they have to be knowledgeable about alternative teaching and teaching strategies which capitalize on the future of the multigrade classroom.

The foregoing related literature crystallized the workings and practices of multigrade classrooms in the Philippines and some parts of the world. It provided the researcher insights as to the organization and management of this particular class arrangements. This class organization posed several problems in terms of classroom, materials and equipment requirements, readiness of teachers to handle these classes and parent support which, if not addressed properly, would result in mediocrity and failure of the program.

### Related Studies

The following research studies were reviewed by the researcher and were found to be relevant to the present study; hence, they are summarized hereunder.

Odevilas (1998) conducted a comparative study on "The Academic Performance of Multigrade and Monograde Classes" in the district of Hinabangan, Samar. He utilized the descriptive method of research making use of a teacher-made diagnostic/achievement test as a principal instrument the collection of data. Another instrument utilized was the questionnaire which was administered to the teachers of monograde and multigrade classes. The following were some of the findings in his study: 1) the monograde pupilrespondents were found to have higher average family income per month than the multigrade; 2) on the average, the data collected revealed that one multigrade teacher had attended approximately 3 trainings while one monograde teacher had approximately attended 4 trainings; and 3) the data on the length of service of the teacher-respondents showed that the monograde teachers had been in the service longer than the multigrade teachers.

The results of the hypothesis testing revealed that the monograde classes showed better performance in all the

four grade levels and in four learning areas, namely:
English, Science and Health, Sibika at Kultura, and
Filipino. These two classes showed more or less the same
performance in Mathematics only. Therefore, in the
District of Hinabangan, it was found out that in general,
monograde classes had superior performance than the
multigrade classes.

The present study bore similarity with Odevilas' study in the sense that: 1) both studies dealt with pupils' academic achievement of monograde and multigrade classes; 2) both focused on the same learning areas. However, the study differed in the following aspects: a) the present study involved grades I-VI pupil while Odevilas' study involved grades I-IV pupils and b) the previous study was conducted in the district of Hinabangan, Samar while the present study was conducted in the Districts of Wright I and Wright II, Division of Samar; and c) Odevilas' study was a comparative study while this present undertaking was descriptive-correlational which revealed different variates that significantly affected achievement.

The DECS Multigrade Teaching Project conducted by Seameo-Innotech in 1996, noted monograde pupils to have higher achievement mean scores. The mean scores of

monograde and multigrade sample pupil in all subjects, were almost equal in Grades IV and V while the mean scores of Grade III monograde in listening, Science, Language and Mathematics were higher than the scores in multigrade, the latter outscored them in Mathematics. The same was true for Grade VI, where the monograde classes had higher scores in Pagbasa, Wika, Science and Mathematics but had lower scores in Listening, Edukasyong Pantahanan at Pangkabuhayan and Sibika. The samples validated the observation that the pupils performance depended more on other factors than to which group (monograde or multigrade) they belonged to. Those factors could be the presence of better-trained and highly motivated teachers, more textbook and teaching aids, education-friendly environment.

The study concluded that, while the sample pupils in both groups showed good learning capacities as shown by their significant increases in mean scores from pretest to posttest measurement, there was still a lot of room for improvement. The study recommended the following aspects to improve the effectiveness of multigrade classes: 1) instructional and learning materials, 2) training and education; and 3) monitoring and supervision.

The present study was similar to that of DECS Multigrade Teaching Project conducted by Seameo Innotech because both studies dealt with pupils' performance in multigrade and monograde classes. However, it was different from the above-named study because the latter was conducted nationwide, while the present study was district level.

Dacuro (1995) experimented predeveloped lesson plans and its effect on the achievement in English of Grade VI pupils which revealed that: 1) high educational qualification and favorable attitude of teachers greatly influenced achievement of grade VI pupils in English, 2) teaching strategies did not affect the achievement of grade VI pupils in English. It was concluded that any strategy under the expert manipulation of a skillful teacher was effective.

He recommended that: 1) since high educational qualification greatly influenced achievement, teachers in English should update themselves and improve their teaching competencies by attending summer or weekend MA classes and in-service training along English teaching, 2) in order to achieve high performance level teachers must possess a high sense of commitment and sincerity in their work. The

predeveloped lesson plans necessitated proper and honestto-goodness implementation of the material specifically on lesson mastery, preparation, and implementation effective utilization of the suggested activities, teaching aids, and the like.

The present study was related to the study of Dacuro inasmuch as the former tackled achievement in English of Grade VI pupils which was part of the concern of the latter. However, they differed inasmuch as Dacuro used an experimental research design while the present study used the descriptive-correlational research methodology. Moreover, another difference lay on the scope of the learning areas focused. While Dacuro focused on English achievement, the present study included other learning areas aside from English.

Lumpas (1996) conducted a correlational study on factors related to pupils performance in the NEAT. She attempted to find out whether the identified pupil and teacher related variables influenced the NEAT performance of grade VI pupils of Mayorga, Leyte. The results of the analysis of the data gathered showed that generally the grade six pupils of the said district had moderately negative attitude towards schooling. With regard to

reading level, their reading ability was only grade five and six months.

When the pupil-related variables were correlated with NEAT performance, it was found to be highly significant with the dependent variables, while attitude towards schooling did not show a positive relationship. In the correlational analysis between teacher-related variables and pupils performance it was found out that educational attainment, teaching experience, age, and number of teachers were found to be positively and highly correlated with respect to pupils NEAT performance while attitude towards teaching and academic learning time showed a negative relationship with NEAT performance.

The present study had relevance with that of Lumpas since both studies involved the use of correlational variables and both dealt on academic performance. However they differed on the following areas: 1) grade level of pupil respondents - the former involved Grade VI pupils while the latter involved the grades I-VI pupils; 2) variables involved - Lumpas considered pupil - and teacher-variables while the present study involved school-related variables aside from these two already mentioned; 3) the research environment - Lumpas' study was conducted in Leyte

Division while the present study was conducted in Samar Division.

The study of Aboganda (1998) attempted to assess the implementation of multigrade instruction and related it with the academic achievement of elementary grades pupils in the REAT. It revealed that the academic performance of the multigrade in the selected elementary schools Division of Samar conducted by the Regional Office last school year 1996-1997, showed an average of 51.66 which was only 1.66 above the 50 percent mastery level for different grade levels. He further stressed that comparison between academic achievement and the teacher's competence showed a very low correlation. This was also true to the comparison between academic achievement and the teacher's technique and academic achievement and evaluation strategies. For academic achievement and instructional materials and facilities, it showed a low correlation. when subjected to further test, teacher competence, teachers' techniques, evaluation strategies facilities revealed material and instructional significant relationship with academic achievement, which implied that the four variables mentioned above

something to do with the low academic performance of selected multigrade classes in the Division of Samar.

The present study had a great semblance with that of Aboganda study considering that the two focused on the same program in the elementary education in the division, aside from the different teacher and school variates considered as research variables by both studies. The difference was on the following: 1) Aboganda assessed the implementation of multigrade instruction and related it with the academic achievement in the REAT, while the present study compared achievement relative to the class category monograde and multigrade, and 2) the previous study was conducted among selected elementary schools in the Division of Samar while the present study was done in the Districts of Wright I and II.

Another related study was that of Rutor (1998) about the "Scholastic Responses of Grade VI Pupils to Homogeneous and Heterogeneous Groupings in Elementary Schools." In her study, she found out that: 1) the obtained value of the difference between the grand scholastic responses of the homogeneous and the heterogeneous groups was 0.245, which was lesser than the tabular value of 2.45 at 0.05 level of significance. This result led to the acceptance of the

null hypothesis that there was no significant difference between the grand scholastic responses of the homogeneous and the heterogeneous groups of grade VI pupils; 2) basing on the result, the assumption that one group was better than the other in terms of scholastic achievement was false. Hence, it was implied that emphasis in teaching must be made towards the mastery of learning skills required in a certain grade level.

She further made the following conclusions, namely: 1) the study revealed a very minimal evidence for the two groups of pupils to be significantly different in terms of scholastic achievement in the five subject areas; 2) the study further revealed a very minimal evidence for the two groups of pupils to be significantly different in terms of their grand scholastic achievement; 3) the scholastic achievement of pupils did not depend on the grouping scheme used by the school.

The present study was considered alike to Rutor's study because: 1) both studies compared pupils' achievements; 2) both used the same curriculum, using the same learning areas and the same skills developed as arranged and contained in the PELC for elementary pupils; 3) both used the same method of research with documentary

analysis and questionnaire as the main instruments in gathering data. However, the two studies differed on: (1) the selection of respondents, her study involved grade VI pupils while the present study dealt with grades I-VI pupils. (2) the research locale of her study was Catbalogan III and IV Central Schools while this study was conducted at Wright I and II districts. (3) her study focused on homogeneous and heterogeneous group of pupils while this study centered on Monograde and Multigrade pupils.

Another study which best supported this study was that of Jumadiao (1997) on "The Problems of Multigrade Teachers in the Division of Northern Samar," which specifically focused on the following concerns: 1) the teacher-related factors such as educational preparation, length of service, work performance, work values and teaching behaviors; and 2) the extent of the problems experienced by multigrade teachers in terms of pupil performance, teacher's competence, physical facilities, supervision and parent's participation.

The study of Jumadiao concluded that: a) although majority of the 168 respondent-teachers were equipped with the minimum educational preparation to perform their tasks

as multigrade teachers, they failed to earn graduate units which would improve degree help professionally, b) although multigrade teachers generally rated as "very satisfactory," this did not mean supervisors and school administrators should stop assisting and assessing multigrade teachers in their work; c) on instructional materials, their availability was rated a very "dismal state." This suggested that the school administrators and LAC teachers should incorporate topics on instructional materials development. In this way, it was forecasted that such could be one solution to the aforecited problem on scarcity of these instructional materials.

The relatedness of this present study with the former study was on the fact that both treated the academic performance of pupils and was related to different teacher and school variates. The difference was on the research environment because while the former was conducted in the whole Division of Northern Samar, the latter was conducted in the Districts of Wright I and II on different period or school year.

A comparative study on the Performance of PRODED Trained and Non-PRODED Trained Teachers in Relation to Grade I Pupils Achievement was undertaken by Tan (1990) showed that the level of academic achievement tested in four subject areas such as English, Mathematics, Filipino and Sibika at Kultura differed significantly. The pupils under the PRODED-trained teachers were found to be good achievers. In view of her findings, the researcher recommended that in order to upgrade classroom instruction and improve pupils achievement, there was a need for Learning Action Cells (LAC) sessions to be centered on the actual preparation of instructional materials and on school level demonstration teaching specifically in grade one.

Tan's study was taken into consideration with the present undertaking because both were concerned with pupils achievement in subjects like English, Mathematics, Filipino and Sibika at Kultura. However, they differed inasmuch as Tan's study merely focused on the performance of Grade I pupils while the present study considered the performance of Grades I-VI pupils. Moreover, while Tan's study assessed teachers performance in relation to Grade I pupils achievement, the present research tried to find out the correlates of the performance of the pupils from the monograde and multigrade classes.

Baco (2000) assessed the achievement of grade V pupils

in English-taught subjects like Science and Mathematics with the end of determining the relationship between English proficiency and the pupils performance in these subjects. She found out that there was a significant relationship between the overall performance of grade V pupils and their achievement in English. Based on her findings, Baco concluded that, the pupils' competence in English influenced their performance in Science. proficient a child in English the more likely that he would be good in Science since the English language was the medium of instruction in Science. On the other hand, proficiency in communication skills did not influence or affect the pupils achievement in Math. It can be said that the child might not be necessarily proficient in English in competent in mathematical skills order to be Mathematics had its own unique language of numbers. She further stressed that the problems that beset the grade  ${\tt V}$ pupils in the districts of Wright I and II focused on the difficulty level and scarcity of reading materials, English, Science and references in Mathematics and the inadequacy of teachers in using English and the need to improve their communication skills.

The present study had a direct bearing upon aforesaid study in the sense that: 1) both involving two variables being correlational studies compared. 2) both used achievement test and questionnaire as the instrument for gathering of data. 3) both studies were conducted in Wright I and II. They differed in the following: 1) Baco's study correlated English proficiency with achievement in English, Mathematics and Science, while this study correlated the performance of monograde and multigrade classes based on the achievement test in English, Mathematics, Science, Filipino and Sibika at 2) the former utilized grade V pupils Kultura. respondents while the present study involved grades I-VI pupils.

Another study focusing on pupils achievement in Filipino and HEKASI was undertaken by Nono (1998) where she utilized a descriptive-correlational research design using achievement test as one of the instruments in gathering the data. The respondents were 818 grade V pupils and 305 teachers in twelve districts in Samar during the school year 1996-1997. The Pearson-Product Moment Correlation of Coefficient was used in treating the degree of relationship between Filipino and HEKASI performance. The mean

percentage scores and grade point average of the grade V classes were compared using the t-test for non-independent samples at .05 level of significance. The researcher came up with several findings, to wit: 1) in both measures, the performance in the achievement test and achievement, the pupil-respondents scored higher in Filipino than in HEKASI. This finding pointed to the fact that Filipino was easier than HEKASI; 2) the pupils performance in the achievement test varied significantly with that of their scholastic achievement expressed in grade point average; 3) in both subjects, Filipino and HEKASI, the pupils mean performance and scholastic achievement differed significantly. The GPA of the grade V pupils tended to be very much higher than their mean performance in the achievement test. This finding proved to be inconclusive since both measures differed in criteria order to arrive at a desired performance level. Achievement test was a written assessment, whereas, grade point average was based not only in written assessment but it considered composite factors like oral assessment, project, assignment and the like to arrive at a desired grade point average.

The similarity of this present study with the former study was on the fact that they both addressed similar concern which was pupil performance in the elementary grades and both used achievement test for gathering the However, it highly differed with the present study on the following grounds: 1) the former study considered grade V while the present study considered grades I-VI pupils; 2) the former study compared pupil's achievement in Filipino and HEKASI relative to the scholastic achievement, while the present study compared pupil's achievement relative to the class category - monograde and multigrade; the previous study focused on the achievement in Filipino and HEKASI of the pupil respondents; meanwhile, this study focused on all the learning areas elementary grades.

Labid (1999) in her study "Performance of First Year and Fourth Year Students in the Regional Test-All Project in the Public Secondary Schools" revealed that the average actual MPS of all subject areas were below par against the average targetted mean performance scores for the school years 1995-1996 to 1997-1998. The findings confirmed that Filipino had the edge over the other subject areas followed by English and Values Education, Science and PEHM. The

high disparity, therefore, led to the rejection of the null hypothesis that "there is no significant difference between the targetted and actual MPS for the first year and fourth year students in the Regional Test-All Project in all subject areas." From these findings, it was concluded that the mastery level was a national standard set for all schools to achieve in classroom instruction for all subject areas; hence, it is very ideal as compared to the actual performance of the students in the test-all where it described the total picture of the depressed locality like the Division of Samar. She recommended that, although targets were in the ideal level, there was a need for the teachers to exert more effort in achieving them.

The study of Labid was mentioned in this study because present study conducted, semblance to the of its particularly on the factors affecting student's achievement and performance. They differed on the level of respondents because the former focused on the public secondary schools Regional Test-All Project, the latter was the monograde and elementary pupils in concentrated on multigrade classes.

In the study conducted by Villarante (1994) on "Predictors of the Performance of Second Year Students in

#### Chapter 3

#### METHODOLOGY

This chapter deals with the methods and procedures that were used to answer the problems posed in this study. It presents the research design, instrumentation, validation of instrument, sampling procedure, data gathering procedure and the corresponding statistical treatment of data.

### Research Design

The study employed the descriptive-correlational method of research using the questionnaire and achievement test as the principal instruments in gathering the necessary data. Certain information about the pupil-respondents, teacher-respondents and schools were collected. Too, the achievement of the pupils-respondents in multigrade classes and sample pupils from monograde classes were determined using an achievement test. These two achievement data were correlated to ascertain if they varied significantly. Subsequently, the achievements of the two groups were correlated with some factors akin to pupils themselves, their teachers and the schools they went

to. While this study aimed at comparing the achievement of both groups, it likewise revealed certain factors that affected their achievement. On these bases, the researcher recommended policy redirections for the multigrade program itself and its implementation. The study employed both descriptive and inferential statistical tools to process the data, some of which were: frequency counts, means, weighted means, t-test for independent samples, correlation coefficient and Fisher's t-test.

#### Instrumentation

To collect the needed data to answer the specific questions set forth at the beginning of the study, the following data gathering tools were used: questionnaire, achievement test, documentary analysis, observation and interview.

Questionnaire. One of the main instruments for datagathering was the questionnaire. There were two sets of questionnaires, one for the pupil-respondents and the other, for the teacher-respondents.

The questionnaire for the pupil respondents consisted of three parts, namely: Part I solicited information about pupils particularly his age and sex. They were also asked to estimate the distance between their homes and the school

in terms of meters or approximate travel time. Part II determined the pupils attitude or feelings toward multigrade. Attitude statements were presented for the respondents to respond using this scale: 5 for Strongly Agree (SA); 4 for Agree (A); 3 for Uncertain (U); 2 for Disagree (D); and 1 for Strongly Disagree (DA). Part III composed of study habits mostly practiced by majority of the pupils. The respondents rated them using; 5 for Always (A); 4 for often (O); 3 for Seldom (S); 2 for Less Seldom (LS) and; 1 for not at all (NA).

The teachers' questionnaire consisted of four sections. Part I asked some information about the teacher, particularly, his age, sex, civil status, and educational qualification. They also asked to identify the type of school they went to as: carline, seacoast, mountainous/hilly or lowland. Part III contained indicators of lesson mastery of the multigrade teacher. They rated these as they applied to them using a five point scale: 5 for Excellent (E); 4 for Very Satisfactory (VS); 3 for Satisfactory (S); 2 for Fair (F); and 1 for Poor (P). Part IV contained the different facilities, equipment and instructional contents needed for effective multigrade teaching. The teachers were asked to ascertain the

adequacy of these instructional aids by having the respondents indicate the actual number available in their schools.

Achievement Test. This was the Division Achievement Test used by the Division of Samar in the evaluation of schools. This consisted of test items for English, Mathematics, Science, Filipino, Social Studies and MAPE for Grades 1 to VI. The test measured important skills in the grade and in all subject areas based on the Philippine Elementary Learning Competencies (PELC). A Table of Specifications was prepared to ensure content validity. The reliability coefficient was established at 0.78 using the split-half method. These had gone through item analysis using the test results in the posttest for SY 1999-2000.

<u>Documentary Analysis</u>. This was used to determine the monograde and multigrade schools in the district of Wright, enrolment, teachers and other demographical information about the schools.

# Validation of Instrument

Only the questionnaire was subjected to validation.

After the researcher had prepared the questionnaire, she passed it on to her adviser for his expert scrutiny.

Also, she let her co-teacher who was also handling multigrade to go over them. She encouraged her to suggest for the improvement of the instrument. These suggestions were considered in finalizing the instrument for pilot tryout.

The instrument, then, was pilot-tested to teachers and pupils in multigrade schools in the District of Motiong using the test-retest method. The questionnaire administered to the same sets of respondents at an interval They were directed to days. answer questionnaire to the best of their knowledge and not be afraid to question if there was something they could not The responses in both dry-run were analyzed understand. using the Pearson Product Moment Correlation Coefficient. Computed r was pegged at 0.86, which according to Ebel's Table of Reliability denoted a fairly high reliability, adequate for individual measurement.

# Sampling Procedure

For the purpose of validating the questionnaires for the teachers and pupils, the instrument was tried out with five multigrade teachers and ten multigrade pupils.

For the actual survey, all multigrade schools from grades I to VI in the Districts of Wright I and II were

involved. Total enumeration was used to get the teacher and pupil respondents. There were 1,472 pupils and 66 teachers involved in the study.

For the comparison group which consisted of monograde classes, an equivalent number of teachers and pupils from grades I to VI were sampled from monograde schools. Representative sampling was used in order to get sample respondents coming from carline, seacoast, mountains/hilly and lowland schools to serve as comparison group. Care was considered in order to get equivalent number of teachers from grade to grade.

## Data Gathering Procedure

examination, the researcher After the pre-oral permission from the Schools Division requested Superintendent to conduct her study in the District of Wright I and II, try out her questionnaire in the District of Motiong and to use the Division Achievement Test as her data-gathering instrument. After she obtained her approved letter-request, she then went to the District Supervisors of Wright I and II to inform the administrators of the They agreed tentative study she was to undertake. schedules for the administration of Division Achievement Test in the sample schools and questionnaire to

concerned teacher-respondents. Meantime, she also approached the District Supervisor of Motiong District to inform her of the permission granted her by the Schools Division Superintendent to conduct a dry-run of the questionnaires. Having agreed in the schedule, the researcher conducted her dry-run on October 2002. She utilized two weeks for the analysis and finalization of the instrument.

The administration of the achievement test and questionnaire to the pupils and questionnaire to the teacher-respondents was done simultaneously. While the researcher conducted the test, teacher-respondent was asked to answer the questionnaire. This also gave the researcher a chance to observe some classes and classrooms and interview informally some teachers about their problems in teaching multigrade classes. Gathering of the data started in February and ended in March 2002.

# Statistical Treatment of Data

The data gathered were tallied, scored, recorded and tabulated. They were analyzed and interpreted using appropriate statistical tools.

For the profile of the pupils, teachers and schools, frequency counts, percentage, means and weighted means were

used.

For the results of the achievement tests, aside from the mean scores, the mean percentage scores (MPS) were computed.

To test the significance of the difference between the achievement of the monograde and multigrade class, t-test for independent sample was used. The formula of Walpole (1982:361) was used as follows:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{(N_1 - 1) S_1^2 + (N_2 - 1) S_2^2} \left(\frac{1}{N_1} + \frac{1}{N_2}\right)$$

Where:

t refers to the computed t-value

 $\overline{\mathrm{X}}_{1}$  refers to the average MPS of the monograde classes

 $\overline{X}_2$  refers to the average MPS of the multigrade classes

- ${\rm S_1}^2$  refers to the variance of the MPS of the monograde classes
- ${\rm S_2}^2$  refers to the variance of the MPS of the multigrade classes
  - $\mathrm{N}_1$  refers to the number of cases of the monograde classes

 ${
m N}_{
m 2}$  refers to the number of cases of the multigrade classes

To determine the relationship between the achievement of monograde and multigrade class and some pupil-related, teacher-related and school-related variates, the Pearson Product Moment Correlation Coefficient was used. The formula (Walpole, 1982:216) is as follows:

$$r = \frac{N \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2] [N\Sigma Y^2 - (\Sigma Y)^2]}}$$

Where:

N refers to the number of pairs

 $\Sigma XY$  refers to the sum of the products of variate X and the dependent variable Y

ΣX refers to the sum of the variable X

 $\Sigma Y$  refers to the sum of the variable Y

 $\Sigma X^{L}$  refers to the sum of the squared X-values

 $\Sigma Y^2$  refers to the sum of the squared Y-values

To test the significance of the computed r, Fisher's t-test was applied. The formula (Walpole, 1982:220) is as follows:

Fisher's t = 
$$r \sqrt{\frac{n-2}{1-r^2}}$$

#### Where:

r refers to the computed correlation coefficient

N refers to the number of pairs

 $r^2$  refers to the square of the computed r

The level of significance at which the hypotheses were accepted or rejected was set at .05 level at certain degrees of freedom.

The Table of Reliability (Ebel, 1965:242) was used to ascertain the instrument's reliability.

Reliability Coefficient	Degree of Reliability
0.95 - 0.99 0.90 - 0.94	Very high High
0.80 - 0.89	Fairly high, adequate for individual measurement
0.70 - 0.79	Rather low, adequate for group measurement
Below 0.70	Low, entirely inadequate for individual measurement, although useful for group average and school surveys

### Chapter 4

# PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents and discusses the analysis and interpretation of the data culled through the use of research instruments. It includes among others: 1) profile of the monograde and multigrade pupils and teachers; 2) mean scores of the monograde and multigrade classes based on the Division Achievement Test; 3) comparison of the mean scores of the two groups of respondents; 4) relationship between the achievement of monograde and multigrade classes and pupil-related, teacher-related and school-related variates; and 5) policy redirections or recommendations for multigrade teaching.

## Profile of Pupil-Respondents

Tables 1-9 disclose the profile of the monograde and multigrade pupils with respect to their: age and sex, attitude towards schooling, study habits, parents' educational attainment and parents' monthly income.

Age and Sex. Table 1 presents the age and sex profile of the monograde pupils involved in the study. At a glance, 150 pupils or 16.57 percent are age nine and 11;

124 or 13.70 percent are eight years old; 117 or 12.93 percent are seven years; 116 or 12.82 percent are age 10; and the rest fall on the rest of the age levels. The modal age of the group was pegged at 9.76 years with a standard deviation (SD) of 2.20 years, with the girls a little bit older than the boys with average ages of 9.76 and 9.74 years, respectively. It appears that majority of the pupils were at the time grade III if one considers the entrance age of seven years. It also appears that majority were girls on account that there were 483 of them as

Age & Sex Profile of the Monograde Pupils

Table 1

E08001000000000000000000000000000000000	Sex			
Age	Male	Female	Total	Percent
17	2	1	3	0.33
16	2	0	2	0.22
15	6	1	7	0.77
14	13	17	30	3.31
13	29	34	63	6.96
12	38	56	94	10.39
11	67	83	150	16.57
10	54	62	116	12.82
9	75	75	150	16.57
8	57	67	124	13.70
7	57	60	117	12.93
6	22	27	49	5.41
Total	422	483	905	100.00
Mean	9.74 yrs.	9.76 yrs.	9.76 yrs.	<del>-</del>
SD	2.26 yrs.	2.15 yrs.	2.20 yrs.	

against the boys who numbered 422. As in any other surveys, it is observed that girls dominate the total population of a school.

Table 2 presents the age and sex profile of the multigrade pupils. Of the 567 pupil respondents, there were 94 or 16.58 percent who were age 10; 88 or 15.52 percent were eight years old; 83 or 14.64 percent were eight years old; 80 or 14.11 percent were age nine; 74 or 13.05 percent were age 11; and the rest of the pupils were thinly spread on the rest of the age levels. The group had an average age of 9.52 years with a SD of 2.26 years, with

Age & Sex Profile of the Multigrade Pupils

Table 2

	Sex			
Age	Male	Femalé	Total	Percent
16	1	0	1	0.18
15	7	6	13	2.29
14	8	10	18	3.17
13	18	19	37	6.53
12	16	22	38	6.70
11	31	43	78	13.05
10	44	50	94	16.58
9	34	46	80	14.11
8	39	44	83	14.64
7	55	33	88	15.52
6	21	20	41	7.23
Total	274	293	567	100.00
Mean	9.35 yrs.	9.67 yrs.	9.52 yrs.	_
SD	2.33 yrs.	2.20 yrs.	2.26 yrs.	<u> </u>

the girls registering an average age of 9.67 years, while, the boys had an average age of 9.35 years. Just like the pupils in the monograde classes, this group belonged to this age range. Perhaps, majority of these pupil-respondents were in grade III considering the entrance age of seven years, or simply some pupils were overaged for the grade they were in. Of the 567 multigrade pupils, 293 or 51.68 percent were girls and 274 or 48.32 percent were boys. It was still the female gender that composed the majority of the multigrade pupils.

Attitude. Table 3 presents the attitude profile of monograde pupils towards schooling. Of the ten attitude statements, two were "strongly agreed" by the pupil-respondents. They referred to "Karuyag ko umiskwela" with a weighted mean of 4.78 and "Naruruyag ako hit akon titser" with a weighted mean of 4.59. Five indicators were "agreed" by them with weighted means ranging from 3.85 to 4.43. The top three choices were: "Permi ko ginhuhulat an adlaw nga may klase" with a weighted mean of 4.43; "Nahuyo ako ha klase basi deri ako makadugang pakasamok kan Ma'am pagtutdo" with 4.36; and "Binubuligan ko hi Ma'am it iba nga buruhaton sugad hit pagsaway, pangaro pagpasa hit libro, etc." with 4.36. The pupil-respondents were

Table 3
-titude of Monograde Pupils Towards Schooling

				Resp	onses			Weighted	
	Attitude Statements	5 HFA	4 FA	3 N	2 UA	1 HUA	Total	Mean	Description
1.	Karuyag ko umiskwela. (I like going to school.)	740	139	20	3	3	905	4.78	HFA
2.		583	291	18	11	2	905	4.59	HFA
3.	Naruruyag ako nga damo kami nga grado dida hit amon klase. (I like a multigrade class.)	205	167	171	183	179	905	3.04	N
4.	Nalilipay ako hit amon guinbubuhat. (I am happy of what we are doing.)	389	285	60	141	30	905	3.95	FA
	Diri ko la gin-aasi bisan kon maaringasa hin duro it panleksyon dara hit amon kadamo nga grado. (I don't mind even the class is noisy due to the number of grades in our class.)		147	123	268	171	903	2.92	N
6.	Diri ko la gin-aasi kon usahay masamok it panleksyon dara hit amon kadamo nga grado. (I don't mind if sometimes the class is in disarray being a multigrade class.)	158	166	127	259	195	905	2.82	N
7.	Nahihibaro man ako bisan kon grupo-grupo an pagtutdo ni Ma'am. (I still learn even our teacher divided the class into groups.)	294	335	160	74	42	905	3.85	FA
8.	Binubuligan ko hi Ma'am it iba nga buruhaton sugad hit pagsaway, pangaro pagpasa hit libro, etc. (I help my teacher in her other work like reprimanding, passing of books, etc.)	484	314	70	27	10	905	4.36	FA
9.	Nahuyo ako ha klase basi deri ako makadugang pakasamok kan Ma'am pagtutdo. (I pay attention to the class so that I won't disturb my teacher's discussion.)	503	279	83	34	6	905	4.37	FA

FA

39.11

3.91

Table 3 (Cont'd.)

Total

**Grand Mean** 

Attitude Statements			Resp	Weighted				
	5 HFA	4 FA	3 N	2 UA	1 HUA	Total	Mean	Description
<ol> <li>Permi ko ginhuhulat an adlaw nga may klase. (I always long for a day we have our class.)</li> </ol>	532	275	65	21	12	905	4.43	FA

Legend:	Description	Interpretation	
	Strongly Agree	Highly Favorable Attitude	(HFA)
3.51 - 4.50	Agree	Favorable Attitude	(FA)
2.51 - 3.50	Undecided	Neutral	(N)

1.51 - 2.50 Disagree Unfavorable Attitude (UA)
1.00 - 1.50 Strongly Disagree Highly Unfavorable Attitude (HUA)

"uncertain" on three indicators, namely: "Naruruyag ako nga damo kami nga grado dida hit amon klase" with a weighted mean of 3.04; "Diri ko la gin-aasi bisan kon maaringasa hin duro it panleksyon dara hit amon kadamo nga grado" with a mean of 2.92; and "Diri ko la gin-aasi kon usahay masamok it panleksyon dara hit amon kadamo nga grado" with a mean of 2.82. As a whole, the grand mean was pegged at 3.91 described as "agree" interpreted as favorable attitude. It could be said that the monograde pupils had a favorable attitude towards schooling. Generally, they like school and their teachers. They behave accordingly to help their teachers manage the multigrade classes.

The attitude profile of the multigrade pupils towards schooling is reflected in Table 4. It shows that one

indicator was "strongly agreed" by the pupil-respondents with a weighted mean of 4.75. It corresponded to "Karuyag umiskwela." Six indicators were "agreed" by the ko respondents which weighted means ranged from 3.82 to 4.39. The top three were: 1) Naruruyaq ako hit akon titser -4.39; 2) Permi ko ginhuhulat an adlaw nga may klase - 4.16; 3) Binubuligan ko hi Ma'am it iba nga buruhaton sugad hit pagsaway, pangaro pagpasa hit libro, etc. - 4.15. The same attitude indicators rated "uncertain" by the monograde pupils were also assessed by the multigrade teachers. These were: "Diri ko la gin-aasi bisan kon maaringasa hin duro it panleksyon dara hit amon kadamo nga grado"; "Diri ko la gin-aasi kon usahay masamok it panleksyon dara hit amon kadamo nga grado"; and "Naruruyag ako nga damo kami nga grado dida hit amon klase." It appeared that the indicators rated "uncertain" by monograde pupils were also assessed the same by multigrade pupils. Perhaps, the pupils were not fully aware that the class was composed of several grades. To them teaching by groups/grades seemed to be a normal occurrence to them that they did not mind it. When they came to the other indicators, they might have stopped to think, "What's wrong, diri man masamok?" situation confused them, so both groups rated it The "uncertain." Nevertheless, for the multigrade pupils, they

Table 4

\*titude of Multigrade Pupils Towards Schooling

				Deer					
		****			onses			Weighted	
	Attitude Statements	5 HFA	4 FA	3 N	2 UA	1 HUA	Total	Mean	Description
1.	Karuyag ko umiskwela. (I like going to school.)	408	103	7	1	3	522	4.75	SA
2.	Naruruyag ako hit akon titser. (I like my teacher.)	282	184	40	9	7	522	4.39	Α
3.	Naruruyag ako nga damo kami nga grado dida hit amon klase. (I like a multigrade class.)	82	125	115	118	82	522	3.01	U
4.	Nalilipay ako hit amon guinbubuhat. (I am happy of what we are doing.)	159	223	62	45	34	523	3.82	Α
	Diri ko la gin-aasi bisan kon maaringasa hin duro it panleksyon dara hit amon kadamo nga grado. (I don't mind even the class is noisy due to the number of grades in our class.)	139	136	105	105	37	522	3.45	U
6.	Diri ko la gin-aasi kon usahay masamok it panleksyon dara hit amon kadamo nga grado. (I don't mind if sometimes the class is in disarray being a multigrade class.)	85	165	135	90	75	550	3.17	U
7.	Nahihibaro man ako bisan kon grupo-grupo an pagtutdo ni Ma'am. (I still learn even our teacher divided the class into groups.)	192	198	94	27	15	526	4.00	Α
8.	Binubuligan ko hi Ma'am it iba nga buruhaton sugad hit pagsaway, pangaro pagpasa hit libro, etc. (I help my teacher in her other work like reprimanding, passing of books, etc.)	215	204	74	20	8	521	4.15	Α
9.	Nahuyo ako ha klase basi deri ako makadugang pakasamok kan Ma'am pagtutdo. (I pay attention to the class so that I won't disturb my teacher's discussion.)	200	208	84	26	4	522	4.10	Α

FA

3.91

Table 4 (Cont'd.)

**Grand Mean** 

			Resp	Weighted	-1-41-1			
Attitude Statements	5 HFA	4 FA	3 N	2 UA	1 HUA	Total	Mean	Description
<ol> <li>Permi ko ginhuhulat an adlaw nga may klase. (I always long for a day we have our class.)</li> </ol>	229	191	66	26	10	522	4.16	А
Total	<u>.</u>			-	_		39.11	

Legend:	Description	Interpretation		
4.51 - 5.00	Strongly Agree	Highly Favorable Attitude	(HFA)	
3.51 - 4.50	Agree	Favorable Attitude	(FA)	
2.51 - 3.50	Undecided	Neutral	(N)	
1.51 - 2.50	Disagree	Unfavorable Attitude	(UA)	
1.00 - 1.50	Strongly Disagree	Highly Unfavorable Attitude	(HUA)	

"agreed" on the attitude indicators as supported by a grand mean of 3.90 indicating that they had a favorable attitude towards schooling. They liked school and their teachers such that they assisted them in school.

<u>Study Habits of Pupils</u>. Tables 5 and 6 reflect the study habits of both monograde and multigrade pupils.

For the monograde pupils, they assessed nine study habits to be "often practiced" with weighted means ranging from 3.66 to 4.29. The four habits which garnered higher means were: Item 7 - "Gintitimos ko it akon mga gamit pagkatapos ko mag-aram" - 4.29; Item 1 - "Nag-aaram ako kun gab-i" - 4.10; Item 3 - "Guinsusurat ko an amon leksyon ha kwaderno" - 4.01; and Item 5 - "Nag-aaram ako bisan waray

Study Habits of Monograde Pupils

				Resp	onses		7 7	Weighted	
	Attitude Statements	5	4	3	2	1	T-4-1	Mean	Description
		Α	0	St	Se	NP	Total		
1.	Nag-aaram ako kun gab-i. (I study at night.)	442	219	159	64	21	905	4.10	0
2.	Napabulig ako hit akon pagaram/assignment. (I ask help in doing my assignment.)	304	236	207	117	41	905	3.71	0
3.	Guinsusurat ko an amon leksyon ha kwaderno. (I write our lessons in notebook.)	385	295	145	65	15	905	4.07	0
4.	Guinbabalik ko pagbasa an akon guinsurat pag-abot ko ha balay. (I review my notes at home.)	333	268	196	83	25	905	3.89	0
5.	Nag-aaram ako bisan waray ha akon nagtututdo. (I study even if nobody help me.)	427	187	187	82	22	905	4.01	0
6.	Nagapil ako pagbasa imbes magkita hit TV o magmulay. (I prefer to read instead of watching TV or playing.)	328	205	224	109	34	900	3.76	0
7.	Gintitimos ko it akon mga gamit pagkatapos ko mag- aram. (I keep my things after I study.)	518	189	145	44	9	905	4.29	0
8.	Karuyag ko nga guinpapaki- anhan ako bahin hit akon guin-aadman. (I like that somebody will ask me about what I have studied.)	361	227	213	75	29	905	3.90	0
9.	Pag-abot ha iskwelahan, nag- aaram pa ako imbes nga mag- mulay. (When I arrive in school, I still study instead of playing.)	253	259	254	109	30	905	3.66	0
10.	Permi ako nagbabasa didto hit amon class library. (I always read in our class library.)	222	129	227	201	126	905	3.13	St
Tot			- 1	-	- 1	-	-	38.52	-
Gra	and Mean	-	-	-	-	-	-	3.85	0
Le	gend: 4.51 - 5.00 3.51 - 4.50 2.51 - 3.50 1.51 - 2.50 1.00 - 1.50	Ofte Some Seld	ys P en Pr etime lom P Prac	actio s Pra racti	ced actic ced	ed ( (	A) O) St) Se) NP)		

ha akon nagtututdo" - 4.01. It is quite notable that the pupils had good study habits as revealed by the indicators they rated. However, they assessed one study habit to be "sometimes practiced." This corresponded to "Permi ako nagbabasa didto hit amon class library" which obtained a weighted mean of 3.13. The researcher believed that the respondents were not aware of the class library. If they were, they chose to stay in their seats to study, since it was more comfortable in one's own seat than staying in a narrow class library, crowded and limited in space. Nevertheless, the monograde pupils assessed themselves as having very good study habits as they rated themselves with a grand mean of 3.85 equivalent to "often practiced."

The assessment of the study habits of multigrade pupils are contained in Table 6. Again, like the previous group, the multigrade pupils considered nine indicators with weighted means ranging from 3.41 - 4.07 described as "often practiced." The four top choices were: Item 3, "Guinsusurat ko an amon leksyon ha kwaderno" with a weighted mean of 4.07; Item 7, "Gintitimos ko it akon mga gamit pagkatapos ko mag-aram" with 4.02; Item 1, "Nag-aaram ako kun gab-i" with 4.01; and Item 8, "Karuyag ko nga guinpapaki-anhan ako bahin hit akon guin-aadman" with

Study Habits of Multigrade Pupils

				Respo	onses			Weighted	
	Attitude Statements	5	4	3	2	1	Total	Mean	Description
		Α	0	St	Se	NP	Total		
1.	Nag-aaram ako kun gab-i. (I study at night.)	263	106	70	61	22	522	4.01	0
2.	Napabulig ako hit akon pag- aram/assignment. (I ask help	155	163	77	87	41	523	3.58	0
3.	in doing my assignment.) Guinsusurat ko an amon leksyon ha kwaderno. (I write	262	138	81	50	14	545	4.07	0
4.	our lessons in notebook.) Guinbabalik ko pagbasa an akon guinsurat pag-abot ko ha balay. (I review my notes at home.)	176	144	99	79	23	521	3.71	0
5.	Nag-aaram ako bisan waray ha akon nagtututdo. (I study even if nobody help me.)	209	144	85	60	24	522	3.87	0
6.	Nagapil ako pagbasa imbes magkita hit TV o magmulay. (I prefer to read instead of watching TV or playing.)	154	201	96	80	36	567	3.63	0
7.	Gintitimos ko it akon mga gamit pagkatapos ko mag- aram. (I keep my things after I study.)	244	136	65	63	14	522	4.02	0
8.	Karuyag ko nga guinpapaki- anhan ako bahin hit akon guin-aadman. (I like that somebody will ask me about what I have studied.)	199	178	96	72	22	567	3.81	0
9.	Pag-abot ha iskwelahan, nag- aaram pa ako imbes nga mag- mulay. (When I arrive in school, I still study instead of playing.)	129	142	105	98	44	518	3.41	0
10.	Permi ako nagbabasa didto hit amon class library. (I always read in our class library.)	111	94	103	93	103	504	3.03	St
To		-	-	- 11	-	-		37.15	=
Gr	and Mean	-	-	-	-	-	-	3.72	0
	gend: 4.51 - 5.00 3.51 - 4.50 2.51 - 3.50 1.51 - 2.50 1.00 - 1.50	Ofte Some Selo	en Pr etime dom P	racticectics	ced actic ced	ed (	A) (O) (St) (Se) (NP)		

3.81. One study habit which was also assessed by the previous group as "sometimes practiced" was "Permi nagbabasa didto hit amon class library." As a whole, the multigrade pupils had a grand mean of 3.72 equivalent to "often practiced." It indicated that the multigrade pupils studied their lessons at night, took down notes of the lessons, preferring to study than to play, and the like only showed that they, likewise, had very good study The use of the class library was not really done habits. often because multigrade teachers corroborated that their class libraries simply consisted of a shelf with books, with no study tables and chairs because of limited space. It seemed that pupils did not consider it as a place of study but referred to the classroom as the place of study, instead.

Educational Attainment. The educational attainment profile of the parents of the monograde pupils are reflected in Table 7. Among the fathers, there were 221 or 24.42 percent each who were in high school and elementary levels respectively; 152 or 16.80 percent who graduated from the elementary level; 120 or 13.26 percent who graduated from high school; the rest were distributed in the other categories. Quite notable were 78 fathers who

Parents' Educational Attainment of Monograde Pupils

Educational	Parents							
Attainment	Father	Percent	Mother	Percent				
College Graduate	40	4.42	21	2.32				
College Level	72	7.96	346	38.23				
High School Graduate	120	13.26	223	24.64				
High School Level	221	24.42	159	17.57				
Elementary Graduate	152	16.80	22	2.43				
Elementary Level	221	24.42	43	4.75				
No Schooling	1	0.11	50	5.52				
Not Specified	78	8.62	41	4.53				
Total	905	100	905	100				

did not specify their educational attainment. Perhaps, they opted not to be identified in what level of schooling they were for some reasons or another. Also, it can also be noted that 40 fathers or 4.42 percent were college Among the mothers, 346 or 38.23 percent were graduates. 223 or 24.64 percent were high school college level; graduates; 159 or 17.57 percent were high school level; the rest were spread in the other categories. There were more mothers of monograde pupils who had no schooling at all on account of 50 of them or 5.52 percent. There were 41 or specify their educational did not 4.53 percent who attainment. Generally, the parents of this group had some kind of education which could enable them to assist their children in their school work.

Table 8 shows the educational attainment profile of the parents of the multigrade pupils. Majority of the fathers were in elementary level accounting for 215 38.62 percent of them; 115 or 20.28 percent were high level; 106 or 18.69 percent were elementary graduates; and the rest were distributed in the other categories. Among the mothers, majority of them (230 or 40.56 percent) were elementary level; 120 or 21.16 percent were elementary graduates; 104 or 18.34 percent were high level; and the rest belonged to the other school categories. Although majority of the parents attained elementary level school, this researcher was doubtful if they could be of assistance to their children in their school work, since most of them would revert to illiteracy after long periods of lack of practice of their literacy and numeracy skills. Even if this finding was taken normally (i.e. parents are elementary graduates), this researcher was still doubtful because of the changes in emphasis in present-day teaching. Focus are more on higher order thinking skills, mastery of the minimum learning competencies and use of technology in school.

Parents' Educational Attainment of Multigrade Pupils

Educational		Par	ents	
Attainment	Father	Percent	Mother	Percent
College Graduate	21	3.70	14	2.47
College Level	26	4.59	13	2.29
High School Graduate	52	9.17	50	8.82
High School Level	115	20.28	104	18.34
Elementary Graduate	106	18.69	120	21.16
Elementary Level	219	38.62	230	40.56
No Schooling	26	4.59	30	5.29
Not Specified	2	0.35	6	1.06
Total	567	100	567	100

Family Income. Shown in Table 9 is the average family income of parents of monograde and multigrade pupils. As gleaned from the table, majority of the monograde parents had a family income of PhP 3,299 and below on account of 639 or 70.61 percent of them. One hundred fifty-eight or 17.46 percent earned an average of PhP 3,300 - PhP 6,299 and the rest were thinly spread among the other income ranges. Noticeably, there was one parent or 0.11% who had an average income falling between PhP 30,000 - PhP 32,299. This group had a modal family income of PhP 3,085.94 with a SD of PhP 2,784.82.

Parents' Average Family Income of Monograde & Multigrade Pupils

Income	Monog	grade	Multig	rade
in Pesos	F	Percent	f	Percent
30,000 - 32,299	1	0.11	0	0.00
27,300 - 29,299	0	0.00	0	0.00
24,300 - 26,299	0	0.00	0	0.00
21,300 - 23,299	0	0.00	0	0.00
18,300 - 21,299	1	0.11	0	0.00
15,300 - 18,299	2	0.22	1	0.18
12,300 - 15,299	1	0.11	4	0.71
9,300 - 12,299	26	2.87	10	1.76
6,300 - 9,299	37	4.09	7	1.23
3,300 - 6,299	158	17.46	100	17.64
3,299 & below	639	70.61	425	74.96
Not specified	40	4.42	20	3.53
Total	905	100	567	100
Mean	3,085.94	-	2,492.02	
SD	2,784.92	-	2,192.57	-

Among the multigrade parents, a good number, 425 or 74.96 percent of them had a family income of PhP 3,299 and below; 100 or 17.64 percent had a family income of PhP 3,300 - PhP 6,299; and the rest belonged to the other income ranges. The group had an average family income of PhP 2,492.02 with a SD of PhP 2,192.57.

It can be gathered that the family income of both groups is low enough, far below the poverty threshold of PhP 10,000 established by NEDA in 2000. It could be

difficult for the parents to "make both ends meet," including the school needs of their children.

#### Profile of Teacher-Respondents

The profile of the teachers handling monograde and multigrade classes are reflected in Table 10-19. It shows the distribution in terms of age and sex, civil status, educational qualification, attitude, lesson mastery, teaching experience and in-service trainings attended.

Age and Sex. There were 45 monograde teachers surveyed. Their age and sex data are presented in Table 10. As can be gleaned, 13 or 28.89 percent were between the age range 30 - 34; eight or 17.78 percent belonged to 55 - 59 age bracket; five or 11.11 percent each fall between the ranges 45 - 49; 40 - 44 and 25 - 29; and the rest were within the other age brackets. Worth noting was one teacher who was between 60 - 64 and two teachers falling between 20 - 24. The modal age of the monograde teachers clustered around 40.22 years with a SD of 11.39 years with the female teachers being older than their counterpart as evidenced by their average age of 41.0 years with a SD of 11.83 years as against the males which was 34 years, SD = 2.74 years. This group was in their forties, relatively young, half-way through their teaching careers.

There were female teachers in this group accounting for 40 of them; while the males were only few. This backs up the observation that the teaching profession is dominated by females.

Table 10

Age & Sex Distribution of Monograde Teachers

	Se	X		
Age Bracket	Male	Female	Total	Percent
				0.00
60 - 64	0	1	1	2.22
55 - 59	0	8	8	13.78
50 - 54	0	2	2	4.44
45 - 49	0	5	5	11.11
40 - 44	0	5	5	11.11
35 - 39	2	2	4	8.89
30 - 34	3	10	13	28.89
25 - 29	0	5	5	11.11
20 - 24	0	2	2	4.44
Total	5	40	45	100.00
Mean	34 yrs.	41 yrs.	40.22 yrs.	-
SD	2.74 yrs.	11.83 yrs.	11.39 yrs.	-

The age and sex distribution of the multigrade teachers can be seen in Table 11. Of the 21 respondents, nine or 42.86 percent were between the age range of 30 - 34 and the rest were distributed in the rest of the age brackets. One female teacher was between 60 - 64 and three female teachers fell between 25 - 29. The multigrade teachers had a mean age of 37.24 years, SD = 9.81 years.

Again, the female group appears to be older than the male teachers; they, having a mean age of 37.83 with a SD of 10.47 and the males having a mean age of 33.67 with SD = 2.89 years. Again, majority of the multigrade teachers were females; there were 18 of them and only 3 were males. The multigrade teachers were much younger than the previous group. This can be explained that in the assignment of new teachers, the common practice of many administrators is to assign them in far-flung schools where multigrade classes are commonly found, to give way to teacher-transferees, to take the vacancy in the central school or near-by stations.

Age & Sex Distribution of Multigrade Teachers

Table 11

	Se	X			
Age Bracket	Male	Female	Total	Percent	
60 - 64	0	1	1	4.76	
55 - 59	0	1	1	4.76	
50 - 54	0	1	1	4.76	
45 - 49	0	1	1	4.76	
40 - 44	0	2	2	9.52	
35 - 39	1	2	3	14.29	
30 - 34	2	7	9	42.86	
25 - 29	0	3	3	14.29	
Total	3	18	21	100.00	
Mean	33.67 yrs.	37.83 yrs.	37.24 yrs.	-	
SD	2.88 yrs.	10.47 yrs.	9.81 yrs.		

Civil Status. The civil status profile of the monograde and multigrade teachers is shown in Table 12. It is categorized into single, married and widow/widower. As shown, of the 45 monograde teachers, 32 or 71.11 percent were married; 11 or 24.44 percent were single; and two or 4.44 percent were widow/widower.

Among the multigrade teachers, 15 or 71.43 percent were married; and three or 14.29 percent each were single and widow/widower. This finding was expected because the age profile of the two groups of teachers was of marriageable age.

Table 12

Civil Status of Monograde and Multigrade Teachers

	Mone	ograde	Multigrade			
Civil Status	F	Percent	F	Percent		
Single	11	24.44	3	14.29		
Married	32	71.11	15	71.43		
Widow/Widower	2	4.44	3	14.29		
Total	45	100.00	21	100.00		

Educational Qualification. Presented in Table 13 is the educational qualification profile of the monograde and multigrade teachers. Among the monograde teachers, 36 or 80.00 percent had MA/MS units; eight or 17.78 percent had

bachelor's degree; and one or 2.22 percent had an MA/MS degree. In the other group, out of 21 multigrade teachers, 17 or 80.95 percent had MA/MS units; three or 14.29 percent had bachelor's degree; and one or 4.76 percent had a MA/MS degree. It goes to show that majority of our teachers are concerned with upgrading themselves by attending graduate school to improve their craft.

Table 13

Educational Qualification of Monograde and Multigrade Teachers

Educational	Mond	ograde	Multigrade			
Qualification	No.	Percent	No.	Percent		
Baccalaureate (BSEd/BEEd)	8	17.78	3	14.29		
With MA/MS units	36	80.00	17	80.95		
MA/MS	1	2.22	1	4.76		
Total	45	100.00	21	100.00		

Attitude. Table 14 presents the attitude profile of monograde teachers towards multigrade teaching. Of the ten attitude statements, the teacher respondents "agreed" with five of them. The top three with higher means were: Item 10, "I wish that incentives be regularly given to MG teachers as an inspiration to them" which obtained a weighted mean of 4.22; Item 6, "I wish I had a monograde class at the end of the day" with 4.22; Item 8, "I look

Attitude of Monograde Teachers Towards
Multigrade Teaching

			Respo	onses				Interpre-
Indicators	5 SA	4 A	3 U	2 D	1 SD	Total	Mean	tation
I enjoy teaching a multigrade	ning a multigrade 3 11 11						2.82	U
class.  2. I deem it a big challenge being assigned to handle a MG	8	17	11	9	0	45	3.53	Α
class 3. I anticipate the day of my meeting with the children with excitement and enthusiasm.	5	27	8	4	1	45	3.69	Α
4. I do not mind if the class is	0	4	9	17	15	45	2.04	D
noisy.  5. I do not mind if the classroom	0	4	7	16	18	45	1.93	D
is topsy-turvy.  6. I wish I had a monograde class	24	10	8	3	0	45	4.22	Α
at the end of the day.  7. I do not mind even if it takes a great deal of preparation each	1	17	16	7	4	45	3.09	U
day. 8. I look forward to the day when I will be transferred to a monograde class.	16	14	10	4	1	45	3.89	Α
9. I am resigned to my fate as an MG teacher so I just make good of it.	1	17	15	10	2	45	3.11	U
10. I wish that incentives be regularly given to MG teachers as an inspiration to them.	20	16	8	1	0	45	4.22	Α
Grand Total	-	-	-	-	_	_	32.56	-
Grand Mean	-		-	-	-	-	3.26	U
Legend: 4.51 - 5.00 3.51 - 4.50 2.51 - 3.50 1.51 - 2.50 1.00 - 1.50	Agr Unc Dis	ertai agree	n e	ee agree		(SA) (A) (U) (D) (SD)		

forward to the day when I will be transferred to a monograde class." The teacher-respondents were "undecided"

on three indicators. These were: Item 9, "I am resigned to my fate as an MG teacher so I just make good of it" with a weighted mean of 3.11; Item 7, "I do not mind even if it takes a great deal of preparation each day" with 3.09; and Item 1, "I enjoy teaching a multigrade class" with 2.82. They "disagreed" on two indicators and they corresponded to: Item 4, "I do not mind if the class is noisy" and Item 5, "I do not mind if the classroom is topsy-turvy" with weighted means of 2.04 and 1.93, respectively. As a whole, the monograde teachers gave them a grand mean of 3.26 equivalent to "undecided." It meant that teachers were neutral in their attitude towards multigrade teaching. It could be explained that they were not teaching multigrade classes and that they were not affected by the attitude indicators at the time they were assessing themselves.

On the attitude of multigrade teachers, their summarized responses are contained in Table 15. It shows that the teacher-respondents "strongly agreed" with two indicators which was "I wish I had a monograde class at the end of the day" and "I look forward to the day when I will be transferred to a monograde class" with weighted means of 4.57 and 4.52, respectively. They "agreed" with three indicators which corresponded to: Item 10 - I wish that

incentives be regularly given to MG teachers inspiration to them; Item 3 - I anticipate the day of my meeting with the children with excitement and enthusiasm; and Item 2 - I deem it a big challenge being assigned to handle a MG class. These had weighted means of 4.43, 3.81 and 3.76, respectively. The teacher-respondents were undecided on three indicators. These were: Item 9 - "I am resigned to my fate as an MG teacher so I just make good of it" with a mean of 3.48; Item 7, "I do not mind even if it takes a great deal of preparation each day" with 2.86; and Item 1, "I enjoy teaching a multigrade class" with a mean of 2.71. There were also two attitude indicators which were "disagreed" by them with weighted means of 2.10 and 2.00. Respectively, they referred to: "I do not mind if the class is noisy" and "I do not mind of the classroom is topsy-turvy." These two indicators were also rated the same by the monograde teacher-respondents. As a whole, the multigrade teachers deemed themselves "undecided" on the attitude indicators as evidenced by the grand mean of 3.42. indicated that they were neutral in their attitude towards multigrade teaching. They really wished they were handling monograde classes but they could not do anything at the moment. In fact, they were uncertain whether they would remain as multigrade teacher or not.

Table 15

### Attitude of Multigrade Teachers Towards Multigrade Teaching

				Resp	onses		i H		Interpre-
In	dicators	5	4	3	2	1	Total	Mean	tation
		SA	Α	U	D	SD			
I enjoy tead     class.	ching a multigrade	0	7	5	5	4	21	2.71	U
2. I deem it a	big challenge being o handle a MG	5	11	2	1	2	21	3.76	Α
I anticipate meeting w	the day of my ith the children with t and enthusiasm.	1	15	5	0	0	21	3.81	Α
	nd if the class is	1	2	3	7	8	21	2.10	D
	nd if the classroom	0	2	4	7	8	21	2.00	D
6. I wish I had	d a monograde class of the day.	15	5	0	0	1	21	4.57	SA
7. I do not mi	nd even if it takes a of preparation each	1	5	7	6	2	21	2.86	U
8. I look forwa	ard to the day when ansferred to a	15	4	1	0	1	21	4.52	SA
9. I am resign	ned to my fate as an er so I just make	2	11	3	5	0	21	3.48	U
10. I wish that regularly g		12	7	1	1	0	21	4.43	Α
Grand Total		-	-	-	-	-	-	34.24	-
Grand Mean		-	-	-	-	-		3.42	U
Legend:	Strongly Agree (SA) Agree (A) Uncertain (U) Disagree (D) Strongly Disagree (SD)								

Lesson Mastery. Five indicators of lesson mastery were rated by both monograde and multigrade teachers. The

results of their assessment are disclosed in Table 16 and 17.

Among the monograde teachers, they assessed themselves to have "high mastery" on four out of five indicators: 1) They had boardwork and independent activities ready everyday; 2) They could teach/discuss spontaneously; 3) They had IMs ready before facing the class; and 4) They asked the appropriate questions at the right time. Their weighted means ranged from 3.84 to 3.96. They rated one indicator as "moderately mastered" which referred to "I do not look at the text or notes while teaching." This only showed that majority of monograde teachers could not teach without looking at their text or notes. Nevertheless, they considered themselves to have "high mastery" of the lessons they taught as evidenced by the grand means of 3.80.

Table 17 presents the degree of lesson mastery the multigrade teachers had. Except for the numerical values, the teacher-respondents had exactly the same assessment as the monograde teachers. They considered themselves to have "high mastery" of four items. Likewise, they considered themselves to have "moderate mastery" on the same item that the monograde teachers also picked out. As a whole, the multigrade teachers considered themselves to have "high

# Lesson Mastery of Monograde Teachers for Multigrade Teaching

Table 16

			Re	spons	es				Inter-
	Indicators	5 <b>EM</b>	4 HM	3 <b>MM</b>	2 SM	1 NM	Total	Mean	preta- tion
1.	I do not look at the text or notes while teaching.	1	19	24	1	0	45	3.44	НМ
2.	I have my boardwork and independent activities for each group ready.	5	28	12	0	0	45	3.84	НМ
3.	I can teach/discuss spontaneously with my pupils.	7	26	11	1	0	45	3.87	НМ
4.	I have my IM's ready before facing the class.	6	27	12	0	0	45	3.87	НМ
5.	I ask the appropriat questions at the right time.	e 7	30	7	1	0	45	3.96	НМ
	Grand Total	-	_		_	-		18.98	-
T	Grand Mean	-	-		-	_	-	3.80	НМ
Le	gend: 4.51 - 5.0 3.51 - 4.5 2.51 - 3.5 1.51 - 2.5 1.00 - 1.5	0 1 0 1	Extrements of the Extrement of the Extre	y Mas ately tly N	stered Mast Master	d cered	(EM) (HM) (MM) (SM) (NM)		

mastery" of the lessons  $(\overline{X}_w - 3.77)$  they present to their pupils as evidenced by their boardwork, independent activities, IMs ready for the day and appropriate questions they asked at the right time. Because of these, they could discuss spontaneously the lesson with their pupils.

Table 17

# Lesson Mastery of Multigrade Teachers for Multigrade Teaching

take			Re	spons	es				Inter-
ì	Indicators	5 <b>EM</b>	4 HM	3 <b>MM</b>	2 SM	1 NM	Total	Mean.	preta- tion
1.	I do not look at the text or notes while teaching.	0	6	14	1	0	21	3.24	ММ
2.	I have my boardwork and independent activities for each group ready.	5	11	4	1	0	21	3.95	НМ
3.	I can teach/discuss spontaneously with my pupils.	3	13	5	0	0	21	3.90	НМ
1.	I have my IM's ready before facing the class.	3	11	7	0	0	21	3.81	МН
5.	I ask the appropriate questions at the right time.	4	12	5	0	0	21	3.95	НМ
	Grand Total	_	_	-	-	-	-	18.86	-
	Grand Mean			-		_	-	3.77	НМ
Legend: 4.51 - 5.0 3.51 - 4.50 2.51 - 3.50 1.51 - 2.5 1.00 - 1.5			Extrements of the Extrement of the Extre	y Mas ately tly M	stered Mast	d cered	(EM) (HM) (MM) (SM) (NM)		

However, just like the monograde teachers, they depended on open text and notes.

Teaching Experience. As regards the teaching experience of the teacher-respondents, the data is seen in Table 18. Among the monograde teachers, 14 or 31.11

percent had 6 - 10 years of teaching experience; 12 or 26.67 percent had teaching experience between 1 - 5 years; and the rest were spread in the other experience brackets. Notably were three monograde teachers who had teaching experience between 31 to 40 years. Their average teaching experience clustered around 11.96 years with a SD of 9.28 years.

The multigrade group had this data: 10 or 47.62 percent were between 6 - 10 years of teaching; six or 28.57 percent had 1 - 5 years; and the rest were distributed in the other ranges. Five multigrades had ages from 21 to 40 years. The mean teaching experience was pegged at 9.81

Table 18

Years of Experience of Teachers

	Mono	grade	Multiç	grade	
Years of Experience	F	Percent	f	Percent	
36 - 40	1	2.22	1	4.76	
31 - 35	2	4.44	1	4.76	
26 - 30	0	0.00	1	4.76	
24 - 25	6	13.33	2	9.52	
16 - 20	5	11.11	0	0.00	
11 - 15	5	11.11	0	0.00	
6 - 10	14	31.11	10	47.62	
1 - 5	12	26.67	6	28.57	
Total	45	100.00	21	100.00	
Mean	11.96 yrs.		9.87 yrs.	- <u>-</u>	
SD	9.58 yrs.		8.39 yrs.		

years, SD = 8.39 years. The teacher-respondents, generally, were relatively new in teaching, barely 9-11 years.

In-Service Trainings. Table 19 has the data on the in-service trainings attended by the teacher-respondents. Among the monograde teachers, 10 or 22.22 percent had trainings at the division level; five or 11.11 percent had attended trainings at the regional level; and one or 2.22 percent had a training at the district. It appeared that there were more monograde teachers who had not attended any training on multigrade teaching as evidenced by 29 or 64.65 percent of them.

Among the multigrade teachers, majority had trainings at the division level as supported by 10 or 61.90 percent of the teacher-respondents. Six or 28.57 percent had trainings at the district level; three or 14.29 percent had trainings at the national level; and two or 9.52 percent had trainings at the regional level. It can be gleaned that all the 21 multigrade teachers has trainings on multigrade teaching.

The majority of the monograde teachers, who had no multigrade training, simply meant that they taught monograde classes at the very start of their teaching

In-Service Trainings Attended by the Teacher-Respondents

Level of	Monograd	le Teachers	Multigrad	e Teachers
Trainings	F	Percent	f	Percent
National	0	0.00	3	14.29
Regional	5	11.11	2	9.52
Division	10	22.22	10	47.62
District	1	2.22	6	28.57
No Training	29	64.65		
Total	45	100.00	21	100.00

careers. Those who had trainings were, perhaps, multigrade teachers before they were transferred to their present assignment.

### Profile of Sample Schools

The profile of the respondent-schools in terms of school distance from home of pupils, type of school location and adequacy of facilities, equipment and IMs are reflected in Tables 20 - 22.

<u>School Distance</u>. The profile of the schools in terms of its distance from pupils' homes is expressed in meters. The data is shown in Table 20. Among the monograde pupils,

512 or 56.57 percent lived between 1 - 100 meters from school; 106 or 11.72 percent lived somewhere 1001 and above meters; 100 or 11.05 percent were 901 - 1000 meters from school; and the rest were distributed among the other distance ranges. Close to 506 meters was the average distance of the homes of monograde pupils from their school. In the other group, over half of them (314 or 55.38 percent) live within the distance range of 1 - 100 meters; 82 or 14.46 percent live farther, i.e. between 1001 and above meters; 79 or 13.93 percent live with 101 200 meters range from the location of the school; the rest were

Table 20
School Distance From Home of Pupils

	Mono	grade	Multig	rade
Distance in meters	No.	Percent	No.	Percent
4004 0 abaua	100	11 71	92	14.46
1001 & above	106	11.71	82	
901 - 1000	100	11.05	27	4.76
801 - 900	1	0.11	0	0.00
701 - 800	1	0.11	6	1.06
601 - 700	6	0.66	0	0.00
501 - 600	7	0.77	3	0.53
401 - 500	43	4.75	25	4.41
301 - 400	11	1.22	7	1.23
201 - 300	31	3.43	24	4.23
101 - 200	87	9.61	79	13.93
1 - 100	512	56.57	314	55.38
Total	905	100.00	567	100.00
Mean	506 m.	_	488.26 m.	<u>-</u>

distributed in the other distance ranges. On the average, the multigrade pupils lived 488.26 meters away from the school. Homes of the majority of the monograde and multigrade pupils were quite far from school. Children spent a lot of time walking to school or riding, perhaps. The hassle before he could be ready for the school activities was quite considerable.

Type of School Location. Table 21 discloses the type of school location the respondent-pupils went to. categorized as: carline, mountain, seacoast and lowland school. Based on the data, 460 monograde pupils or 50.83 percent went to mountain school; 167 or 18.45 percent went to seacoast school; 159 or 17.57 percent went to a lowland school; and around 119 or 13.15 percent went to carline Among the multigrade pupils, 185 or 32.63 percent went to carline schools, 177 or 31.22 percent attended lowland schools; 176 or 31.04 percent attended mountain schools; and 29 or 5.11 percent attended seacoast schools. The findings pointed to the fact majority of the monograde classes were located in mountain schools. Multigrade classes were mostly found in carline, lowland and mountain schools in almost the same number.

Type of School Location of the Monograde and Multigrade Classes

	Mond	ograde	Multigrade			
Type of School Location	f	Percent	f	Percent		
Carline School	119	13.15	185	32.63		
Mountain School	460	50.83	76	31.04		
Seacoast School	167	18.45	29	5.11		
Lowland School	159	17.57	177	31.22		
Total	905	100	567	100		

Facilities, Equipment and Instructional Materials. Listed in Table 22 and 23 were the facilities, equipment and IMs available in monograde schools. The facilities specified classroom, comfort room, library, as playground, canteen, garden and stage. The equipment were identified as chalkboard, tables, chairs/desks, learning centers and cabinets. The IMs were classified books/TX, teacher-made IMs, recycled as materials, posters/charts, cut-outs, activity cards and puzzles.

Among monograde schools, 100 percent of the teacher-respondents claimed their schools had the following facilities: classrooms, comfort rooms, playground and garden; whereas, only 88.89 percent had canteens, 66.67 percent had stage; and 44.44 percent had libraries, mini or

## Facilities/Equipment/Instructional Materials Available Among Monograde Classes

Table 22

ó			A.	Facil	ities		1		B.	Equ	iipme	ent			C.	Instruc	ctional	Mater	ials	
Teacher Code No.	Classroom	Comfort Room	Library	Playground	Canteen	Garden	Stage	Chalkboard	Tables	Chair/Desks	Bulletin Boards	Learning enters	Cabinets	Books/TX	Teachers Made Materials	Recycled Materials	Posters/Charts	Cut-Out Pictures	Activity Cards	Puzzles
1	1	1	0	1	0	1	1	4	5	30	6	5	1	1:1	100	150	220	100	7	0
2	1	1	1	1	0	1	1	1	2	10	12	7	1	1:1	80	90	55	36	15	8
3	1	1	1	1	0	2	1	3	3	15	11	1	2	1:3	30	100	70	50	50	1
4	1	1	0	1	0	2	1	2	3	17	7	1	0	1:2	50	75	35	20	50	0
5	1	1	0	1	0	2	1	2	3	11	13	8	4	1:1	150	200	180	80	20	2
6	1	1	1	1	0	1	1	2	2	13	8	1	1	1:2	350	100	70	50	50	3
7	1	3	1		1	2	1	2	2	25	6	6	1	1:1	20	300	30	50	60	2
8	1	3	1	2	1	2	1	2	4	22	5	5	0	1:1	10	10	20	10	50	4
9	1	3	1	2	1	2	1	2	1	15	10	10	0	1:3	80	70	160	80	20	1
10	1	3	0	2	1	2	1	2	1	20	5	6	1	1:3	20	25	45	15	10	5
11	1	3	0	1	1	2	1	2	1	20	6	6	1	1:2	30	50	90	50	80	2
12	1	3	1		1	2	1	2	2	18	7	1	1	1:1	25	100	25	25	10	1
13	1	1	0	1	1	1	0	1	2	13	2	2	0	1:4	100	100	100	100	100	1
14	1	1	0		1	1	0	1	2	13	6	2	1	1:4	100	100	100	100	100	1
15	1	1	0		1	1	0	2	2	14		1	1	1:4	50	50	200	50	100	1
16	1	1	0		1	1	0	2	2	20	2	1	1	1:4	150	50		100	40	3
17	1	1	0		1	1	0	2	1	15	4	1	1	1:4	200	50	200	200	100	1
18	1	1	Mini	1	1	1	0	2	1	10	1	1	0	1:4	50	100	140	90	150	1
19	1	1	1		1	1	0	2	1	16	6	1	4	1:4	20	80	160	80	100	1
20	1	1				1	0	1	1	15	4	2	0	1:4	100	50	110 50	50 100	50 20	1
21	1	1	0		1	1	0	3	2	14	8	3	2	1:2	100	400	30	25	50	1
22	1	1	0		1	1	0	2	1	8	4	2	1	1:2	60	200	60	50	20	1
23	1	1			1	1	0	3	0	17	4		0	1:3	80	100	80	150	60	1
24	1	1	C Mini		1	1	0	3	1	16	4	2	1	1:2	100	300 400	150	80	90	1
25	1	1	Mini		1	1	0	3	3	15	9	3	2	1:1	150	250	80	50	100	10
26		1			1	1	0	1	1	20		3		1:2 1:1	100 120	300		60	50	2
27						1	0			16 17				1:2	100	200		50	50	1
28					1	2		2						1:2	100	200		50	60	1
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Table 22 (Cont'd.)

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                               1
                                    2
                                        2
                                           36
                                                     5 2
                                                            1:2
                                                                  50
                                                                        30
                                                                             30
                                                                                  40
                  1
                       1
44
                           2
                                   2
                                        1 25
                                                     3 1
                                                            1:2
                                                                  50
                                                                        40
                                                                             50
                                                                                  50
                                                                                        40
                                                                                             1
45
          1
```

otherwise. On the equipment, all monograde schools had chalkboards, chairs/desks, bulletin boards, and learning centers. Only 97.78 percent had tables and 84.44 percent had cabinets. As regards IMs, all respondent-schools had books/TX, teacher-made IMs, recycled materials, posters/charts, cutouts and activity cards. Only 95.56 percent had puzzles. It could be said that monograde schools, in general, had facilities, equipment and IMs. Wanting in some schools were libraries and stage.

Among the multigrade schools, the teacher-respondents corroborated, they had classroom, comfort rooms, playgrounds and gardens. However, only 47.62 percent of the multigrade schools had stage; 33.33 percent had

Facilities/Equipment/Instructional Materials

Available Among Multigrade Classes

Table 23

	A. Facilities							B. Equipment						C. Instructional Materials						
Teacher Code No.	Classroom	Comfort Room	Library	Playground	Canteen	Garden	Stage	Chalkboard	Tables	Chair/Desks	Bulletin Boards	Learning enters	Cabinets	Books/TX	Teachers Made Materials	Recycled Materials	Posters/Charts	O	Activity Cards	Puzzles
1	1	1	1	1	1	2	1	2	20	40	8	3	3	1:1	500	200	200	100	50	1
2	1	1	1	1	1	2	1	2	35	35	8	3	1	1:1	200	200	180	50	50	1
3	1	1	1	1	1	2	1	4	30	30	4	2	1	1:2	70	200	120	50	50	1
4	7	1	0	1	0	1	0	4	2	26	5	2	1	1:2	100	150	140	40	40	1
5	7	1	0	1	0	1	0	1	2	37	5	2	2	1:2	50	60	190	50	50	1
6	7	1	0	1	0	1	0	2	3	10	4		2	1:2	150	100	150	100	30	1
7	2	1	0	1	0	1	1	3	2	25	3	3	2	1:2	300	400	180	100	30	2
8	1	1	mini	1	0	2	0	3	2	18	4	4	0	1:2	200	300	200	100	40	1
9	1	1	mini	1	0	2	1	2	2	9	6		0	1:2	100	100	200	100	50	1
10	1	1	mini	1	0	2	1	2		10	5		1	1:2	100	100	200	100	60	2
11		1	0	1	0	1	0	1	2	15	4		0	1:2	85	80	110	120	100	1
12		1	0	1	0	2	1	2	2	10	2	2	1	1:2	50	50	130	60 50	50 50	1 2
13		1		1		1	0	3		12	5			1:2	50	50	50 50	50	50	
14				0		1	0	1	1	38	3			1:2	50	50 50	70	100	50	1
15				1		2	0	3	1	19	4			1:2 1:2	100 50	80	60	80	50	1
16				1		2	1	4	2	10	4			1:2	100	200	50	40	300	
17						1	0			3	2			1:2	100	80		60	80	
18							0	3		16 20	3			1:2	100	60	100	100	40	
19				1		1	0	2		8	3			1:2	50	50	50	50	50	
20 21						1	1 1	1						1:2	50	50		50	50	

Legend: Imp - Improvised

libraries; and 14.29 percent had centers. These findings were on facilities. As regards equipment, these schools had chalkboards, tables, chairs/desks, bulletin boards and learning centers. Only 61.9 percent had cabinets. As to

IMs, the schools had books/TX, IMs, posters/charts, cutouts, activity cards and puzzles. It appeared that
multigrade schools lacked facilities more than equipment
and IMs. This was so because multigrade classes needed
only fewer in quantity of each kind of IMs and equipment
because of fewer pupils in general, and fewer pupils in
each grade than in monograde classes and, therefore, they
could procure these at their own expense.

#### Mean Percentage Scores of Monograde and Multigrade Pupils in Division Achievement Test

The achievement of the monograde and multigrade pupils based on the Achievement Test are presented in Tables 24 specifically, Table 24 presents the and 25. More of monograde pupils in terms of MPS across achievement subject area and grade levels. As shown in the table, grade I obtained the highest MPS of 58.55, followed by grade II with a MPS of 57.52; grade IV with 56.86. VI got the lowest MPS of 44.01. Across subject areas, the top three were: Sibika/HKS with 54.54; Filipino with 54.34; EPP and MSEP scored and English which obtained 52.92. lowest among the seven subjects tested with 47.54 46.85, respectively. The monograde group had a grand MPS of 51.62.

MPS of the Monograde Pupils by Subject Area and Grade Level

Table 24

Grade Level			Sı	ubject Are	ea			Total	Mean
Glade Level	English	Math	Science	Filipino	Sibika	MSEP	EPP	rotar	illoun.
	61.73	56.42	61.28	57.36	66.55	47.93	123	351.27	58.55
11	62.46	61.72	53.37	58.11	59.33	50.13	- 1	345.12	57.52
III	43.47	49.89	43.39	51.53	54.62	44.11	-	287.01	47.84
IV	60.46	52.83	56.19	63.73	56.88	52.59	55.33	398.01	56.86
V	43.66	38.07	55.14	47.94	43.83	42.65	43.21	314.50	44.93
VI	45.71	39.00	42.13	47.38	46.05	43.71	44.07	308.05	44.01
Total	317.49	297.93	311.50	326.05	327.26	281.12	142.61	2003.95	309.69
Mean	52.92	49.66	51.92	54.34	54.54	46.85	47.54	333.99	51.62

Table 25 has the data for multigrade pupils. In this group, grades IV and V topped them all with MPSs of 45.79 and 44.18, respectively. Grades I and II got the lowest MPS of 40.48 and 41.77, respectively. Among the subject areas, still Sibika/HKS and Filipino had the highest MPS as evidenced by 47.17 and 45.31, respectively. MSEP and Math obtained the lowest MPS with 40.74 and 40.66, respectively. The multigrade pupils had a grand mean MPS of 43.15.

Although, the monograde pupils scored higher than the multigrade pupils as shown in their grand MPS, these values were very low considering the target proficiency level of 75%. It was the multigrade group which, undoubtedly, did not perform very well.

MPS of the Multigrade Pupils by Subject

Area and Grade Level

Table 25

Grade Level			Sı	ubject Ar	ea	-1:1		Total	Mean
Grade Lever	English	Math	Science	Filipino	Sibika	MSEP	EPP	i Olai	
	42.10	38.05	38.75	43.14	42.71	38.10	viii.	242.85	40.48
11	40.49	42.27	41.40	42.11	41.67	42.66	0-6.	250.60	41.77
Ш	44.35	40.17	40.91	47.05	45.01	41.92		259.41	43.24
IV	48.10	40.57	44.33	46.83	45.31	38.99	45.13	309.26	44.18
V	46.40	43.44	46.50	46.52	49.65	45.40	42.64	320.55	45.79
VI	41.68	39.48	43.80	46.22	58.68	37.36	37.00	304.22	43.46
Total	263.12	243.98	255.69	271.87	283.03	244.43	124.77	1686.89	258.91
Mean	43.85	40.66	42.62	45.31	47.17	40.74	41.59	281.15	43.15

## Comparison Between the MPS of Monograde and Multigrade Pupils by Subject Area

The performance of monograde and multigrade pupils in the different learning areas were compared to ascertain significant differences. The results of the comparison are disclosed.

In English, the MPS of the monograde pupils was 52.92 and the multigrade pupils had 43.85 with a mean difference of 9.07. Testing the significance of the difference, test for independent samples was used. It was found out that the computed t-value was 3.01 which was numerically greater than the tabular t-value of 1.99 at  $\alpha$  = .05 at 78 df. Thus, the hypothesis that "there is no significant"

difference between performance of monograde and multigrade pupils in English" was rejected. The mean difference of 9.07 was significant enough to conclude that the monograde pupils performed better than the multigrade pupils. It showed that teaching a one-grade class was far better and easier than having two or more grades in one class.

The grand MPS for Math of the monograde classes was pegged at 49.66, while that of the multigrade group was 40.66 with a mean difference of 9.0. When tested for its significance using t-test for independent samples, the computed t-value posted at 3.09 which was numerically greater than the critical t-value of 1.99 at .05 level of significance with df = 78. Therefore, the hypothesis of no significant difference between the performance in Math of the two groups was rejected.

In Science, the monograde pupils registered a grand MPS of 51.92 and the multigrade pupils had 42.62. The observed difference was 9.3. Testing its significance, the computed t-value was pegged at 3.00, numerically greater than the critical t-value of 1.99 at  $\alpha$  = .05, df = 79. It signalled the rejection of the hypothesis that there was no significant difference between the performance of monograde and multigrade pupils in Science.

The results in Filipino and Sibika of monograde classes revealed grand MPS of 54.34 and 54.54, respectively. On the other hand, the grand MPS of the multigrade classes were 45.31 and 47.17, respectively; with mean differences of 9.03 for Filipino and a mean difference of 7.37 for Sibika. The computed t-values for both learning areas were 2.62 for Filipino and 3.55 for Sibika which were numerically greater than the critical value of 1.99 at  $\alpha$  = .05, df = 79. Thus, the hypothesis postulated for these two learning areas regarding their mean differences were also rejected.

For MSEP, the monograde pupils obtained a MPS of 46.85 while the multigrade group got 40.74 leaving a mean difference of 6.11. Testing this observed difference, the computed t-value resulted to 2.37 which was numerically greater than the critical t-value of 1.99 at .or level of significance with 79 df. Therefore, the hypothesis relative to the difference between the performance of the monograde and multigrade classes in this subject was, likewise, rejected.

The EPP results revealed a MPS of 47.54 for monograde classes and 41.59 for multigrade classes with a difference of 5.95. The test of significance disclosed a computed t-

Test of Comparison Between the MPS of the Monograde and Multigrade Pupils by Subject Area

Table 26

	Subject Area								
Parameters	English	Math	Science	Filipino	Sibika	MSEP	EPP		
Means									
Monograde	52.92	49.66	51.92	54.34	54.54	46.85	47.54		
Multigrade	43.85	40.66	42.62	45.31	47.17	40.74	41.59		
Computed t-value	3.01	3.09	3.00	2.62	3.55	2.37	0.85		
Tabular t-value at $\alpha = .05$	1.99	1.99	1.99	1.99	1.99	1.99	2.03		
Degrees of freedom	78	78.00	79	79	79	79	36		

value of 0.85 which was obviously lesser than the critical t-value of 2.03 at  $\alpha = .05$ , with 36 df. Thus, hypothesis stating no significant difference performance of the two groups in EPP was accepted.

With the results of these comparisons, it can be said that the performance of the monograde and multigrade pupils in the Division Achievement Test in English, Math, Science, Filipino, Sibika and MSEP differed significantly. indicated in their MPS, the monograde pupils performed better than the multigrade pupils in the aforesaid learning In EPP, it can be concluded that the monograde pupils performed just as well as the multigrade pupils.

The superiority of the monograde pupils in majority of the subjects only pointed out that one-grade class is easier to teach than having two or more grades in a class.

## Relationship Between the Achievement of Monograde Classes and the Different Variates

The study also probed into the relationship between the achievement of monograde pupils and the different pupil-related, teacher-related and school-related variates in order to identify the correlates of achievement. The results of the correlational analysis is presented in Tables 27 - 29.

<u>Pupil-Related Variates</u>. The pupil-related factors considered in this study were age, sex, attitude, study habits, educational attainment and income of parents.

As presented in Table 27, the computed correlation coefficient between achievement and age was pegged at -0.157 which indicated negligible relationship. To determine the significance of this observed relationship, Fisher's t was applied. The computed absolute t-value resulted to 4.27 which was numerically greater than the critical t-value of 1.64 at .05 level of significance. The hypothesis which stated that "there is no significant relationship between achievement and age of monograde

pupils" was rejected. It meant that age affected achievement of pupils. The r-value being negative indicated that the relationship was inversely proportional. Older pupils did not necessarily obtain higher performance in this case, nor younger children got lower performance. Thus, age was a correlate of performance of monograde pupils.

Between sex and achievement, the computed r was pegged at 0.043 which denoted negligible relationship. Testing the significance of the computed r, Fisher's t was utilized. It turned out that the computed t-value was 1.30 which was numerically lesser than the critical value of 1.64 at  $\alpha$  = .05. Thus, the hypothesis that "there is no significant relationship between pupils' sex and their achievement" was accepted. It meant that being boy or girl, male or female did not influence the achievement of monograde pupils. It could be said that the boys performed just as well as the girls. Hence, sex was not a correlate of achievement.

The table also shows the computed correlation coefficient between pupils' attitude towards schooling and their achievement. It revealed an r of 0.120 which indicated negligible relationship. When it was tested for

its significance, it turned out that the computed r was 3.64 which proved numerically higher than the critical t-value of 1.64 at .05 level of significance. Hence, the hypothesis that there was no significant relationship between pupils' attitude towards schooling and achievement was rejected. It pointed out that their attitude affected their performance in the achievement test. The computed r-value being positive, meant that the relationship that existed between them was directly proportional. It meant that the more favorable was the pupils' attitude, the better was their achievement. Therefore, attitude was a correlate of pupils' achievement.

Another data reflected in Table 27 is the relationship between the pupils' study habits and their achievement. The computed r between these two variates resulted to 0.090 which denoted a negligible relationship. Fisher's t was applied to determine the significance of r-value. The computed t-value was 2.72 which turned out to be greater critical t-value of 1.64 at .05 level the significance. Therefore, the hypothesis that there was no significant relationship between the monograde pupils' study habits and their achievement was rejected. The positive correlation coefficient indicated that the relationship between them was directly proportional. This meant that pupils with favorable study habits tend to study their lessons and performed better than those with unfavorable study habits. On this basis, study habits was considered a correlate of achievement.

Between educational attainment of parents and pupils' achievement, computed correlation coefficient posted at 0.070 equivalent to negligible relationship. Fisher's t to test its significance, the computed t-value was pegged at 2.12 which was numerically greater than the critical t-value of 1.64 at  $\alpha$  = .05. With this result, the hypothesis which stated that "there is no significant relationship between parents' educational attainment and pupils' achievement" was rejected. It meant that parents educational attainment influenced the pupils' achievement With a positive r, it meant that in school. relationship was directly proportional. It suggested that higher the educational attainment of parents, the the higher was the pupils' performance in class. It is observed that educated parents can help the school work of children at home; thus, enabling them to perform better. Educational attainment was a correlate of achievement.

As regards the relationship between the income of parents and pupils' achievement, the correlation

Correlation Coefficient Between Achievement of Monograde Pupils and the Different Pupil-Related Variates

Table 27

Variates	r <sub>xy</sub>	Fisher's t	Critical t*	Decision/Evaluation
Age	-0.157	-4.77	1.64	Reject Ho
Sex	0.043	1.30	1.64	Accept Ho
Attitude	0.120	3.64	1.64	Reject Ho
Study Habits	0.090	2.72	1.64	Reject Ho
Educational Attainment of Parents	0.070	2.12	1.64	Reject Ho
Income of Parents	-0.008	-0.25	1.64	Accept Ho

<sup>\*</sup> Level of significance = 903 &  $\alpha$  = 0.05

coefficient came out to be -0.008, which denoted negligible relationship. The Fisher's t, used to test its significance revealed value of -0.25which a numerically lower than the critical t-value of 1.64 at  $\alpha$  = hypothesis which stated that there was .05. significant relationship between parents' income and pupils' achievement was accepted. Income did not necessarily affect pupils' performance in class. Richness or poorness of pupil did not matter.

In this study, it was found out that the correlates of achievement of monograde pupils, which were pupil-related were age, attitude of pupils towards schooling, study habits and educational attainment of parents.

<u>Teacher-Related Variates</u>. Among the teacher-related factors considered were age, sex, civil status, educational qualification, attitude towards multigrade, lesson mastery, teaching experience and trainings attended. The results of the analyses are reflected in Table 28.

In correlating achievement of monograde pupils and teachers' age, the computed r was 0.353 indicating low However, when it was tested for its correlation. significance, the computed t-value posted at 2.474 which was numerically greater than the critical t-value of 1.64 at  $\alpha = .05$ . Thus, the hypothesis which stated that there was no significant relationship between pupils' achievement and teachers' age was rejected. It meant that age of the teacher influenced achievement of the monograde pupils. With the computed r being positive, it meant that the two variates was directly relationship between the proportional. It indicated that the older the teachers, the greater was their influence in improving achievement. This could be explained by the fact that older teachers had acquired long experience of teaching and wisdom in their work. They improved on their teaching through the years which redound to better performance among their pupils. Thus, teacher's age was a correlate of pupils' achievement.

Relating pupils' achievement and teachers' gender revealed a correlation coefficient of -0.066 suggesting a negligible relationship. The result of the Fisher t-test applied on it was -0.436 which was numerically lesser than the critical t-value of 1.64 at .05 level of significance. Hence, the hypothesis involving the relationship between the two variates was accepted. It indicated that teachers' sex did not affect or influence the achievement of monograde pupils. Both sexes performed just as well in their school work. Sex was not a correlate of achievement.

Between pupils' achievement and teachers' civil status, the computed r was pegged at 0.143 denoting a negligible correlation. Testing its significance using Fisher's t-test, the computed t-value resulted to 0.947 which was numerically lesser than the critical t-value of 1.64 at .05 level of significance. The hypothesis which stated that there was no significant relationship between achievement and civil status was accepted. It meant that whether a teacher was single, married or separated, the achievement of pupils was not affected by it. Pupils achieve, not necessarily caused by the teachers' civil status but by some other factors.

The correlation coefficient computed on the pupils' achievement and the teachers' educational qualification was

0.306 which denoted a low correlation. When tested for its significance, it revealed a computed t-value of 2.109 which was numerically greater than the critical t-value of 1.64 at .05 level of significance. It signalled the rejection the hypothesis that significant there was no relationship between the pupils' achievement and teachers' educational qualification. It meant that educational qualification of teachers had something to do with the extent pupils performed in achievement tests. Since the computed r was positive, it meant that the relationship between the two variates was directly proportional. indicated that the higher was the educational qualification of the teacher, the better the pupils performed in class. Usually, teachers learn much from further schooling, thus, sharpening their expertise in teaching. This greatly helped pupils a lot in learning. In this case, educational qualification came out to be a correlate of pupils' achievement.

In relating pupils' achievement and teachers' attitude towards multigrade revealed a correlation coefficient of 0.090 denoting a negligible correlation. The test of significance posted at 0.593 which turned out to be lesser than the critical value of 1.64 at .05 level of significance. Hence, the hypothesis involving the

relationship between the aforesaid variates was accepted. It meant teachers' attitude towards multigrade did not affect the pupils' achievement. While attitude was found to influence achievement in some researches, in this study, it was not. The finding was expected since, the teacher-respondents were not holding multigrade classes, anyway.

In the case between lesson mastery of the teacher and pupils' achievement, the correlation coefficient posted at 0.132 which indicated a negligible relationship. tested for its significance, the computed t-value was 0.873 which was numerically lesser than the critical t-value of 1.64 at .05 level of significance. The corresponding hypothesis which stated that there was no significant relationship between lesson mastery of the teacher and pupils' achievement was accepted. It meant that lesson mastery of the teacher did not affect the pupils' performance in the achievement test. Although it generally true that lesson mastery contribute much to the learning outcome of children, in the finding in this study, it was not. It appears that the monograde teachers did not concern themselves with the effect of lesson mastery on the achievement of their pupils, since they were thinking of effect of lesson mastery on the achievement multigrade pupils.

The correlation coefficient computed between teaching experience and pupils' achievement was pegged at 0.440 denoting substantial relationship. Using Fisher's t to test its significance, the computed t-value was found to be 3.216 obviously greater than the critical t-value of 1.64 at  $\alpha = .05$ . Therefore, the hypothesis which states that "there is no significant relationship teaching experience and pupils' achievement" was rejected. It implied that teaching experience influenced very much pupils' achievement. Teachers with long years of teaching teach better than the new ones. Their experience honed their teaching skills. With an r of positive value, it meant that the relationship between the two variates was directly proportional. Meaning that the longer was the teaching experience, the greater was the achievement, correspondingly, the shorter was the teaching experience, the lower was the achievement. Therefore, teaching was a correlate of the achievement of monograde pupils.

Between trainings attended by teachers and pupils' achievement, the computed r was -0.243 indicating a low correlation. The test of significance revealed a computed absolute t-value of 1.644 which was numerically greater that the critical t-value of 1.64 at .05 level of

Correlation Coefficient Between Achievement of Monograde
Pupils and the Different Teacher-Related Variates

Table 28

Variates	r <sub>xy</sub>	Fisher's t	Critical t*	Decision/Evaluation
Age	0.353	2.474	1.64	Reject Ho
Sex	-0.066	-0.436	1.64	Accept Ho
Civil Status	0.143	0.947	1.64	Accept Ho
Educational Qualification	0.306	2.109	1.64	Reject Ho
Attitude toward MG	0.090	0.593	1.64	Accept Ho
Lesson Mastery for MG	0.132	0.873	1.64	Accept Ho
Teaching Experience	0.440	3.216	1.64	Reject Ho
Trainings Attended	-0.243	-1.644	1.64	Reject Ho

<sup>\*</sup> Level of significance = 43 &  $\alpha$  = 0.05

significance. This signalled the rejection of hypothesis which stated that there was no significant between trainings attended and relationship It meant that trainings affected pupils' achievement. performance in the achievement test. However, with a negative value, it denoted that the relationship was inversely proportional, i.e. the more trainings attended tend to lower pupils' achievement; on the other hand, less trainings attended resulted in lower achievement. finding may be explained by the fact that: 1) the trainings the monograde teacher-respondents attended were those of multigrade teaching and they felt they had no need for them in a monograde classroom; 2) with more trainings, some

teachers did not apply what they had learned; 3) perhaps, these trainings dealt on the same topic or theme. Thus, trainings attended was a correlate of pupils' achievement.

In summary, the correlates of the achievement of monograde pupils were teacher's age, educational qualification, teaching experience and trainings attended.

<u>School-Related Variates</u>. The study also determined the relationship of some school-related variates and achievement of monograde pupils. These variates were school distance, type of school location and adequacy of facilities, equipment and materials. The result of the correlational analysis is disclosed in Table 29.

As shown in the table, the correlation coefficient between school distance and pupil achievement was 0.081 denoting a negligible relationship. However, when tested for its significance using Fisher's t-test, the computed t-value posted at 2.44 which was numerically greater than the critical value of 1.64 at  $\alpha$  = .05. This gave the researcher evidence to reject the hypothesis that "there is no significant relationship between school distance and pupils achievement." Truly, distance of homes from school contributed to the success or failure of pupils in school. The positive value pointed that the relationship was

directly proportional. The farther pupils reside from school, the lower was the performance; conversely, the nearer the distance of their residence from school, the higher was their performance. It is obvious that when pupils from far homes arrive at school, they are tired and cannot concentrate on the school activities. It may be that some of them leave their home very early to catch up with first hour of their classes and have not eaten their breakfast. This is detrimental to their school work. Hence, school distance was a correlate of pupils' achievement.

The type of school location was also correlated with pupil achievement. The categories involved were: carline, mountain, seacoast and lowland schools. It resulted to a computed r of -0.311 indicating a low correlation. The test of significance performed on it resulted to a t-value of -9.84 which, obviously, was greater than the critical t-value of 1.64 at  $\alpha=.05$ . The null hypothesis, therefore, involving the relationship of these two variates was rejected. It clearly pointed out the location of the school had something to do with the achievement of the monograde pupils. The r-value being negative indicated that the relationship was inversely proportional. It was

found out earlier there were more pupils combined who came carline, seacoast and lowland schools which categorically, were schools located in a plain than those who went to mountain schools. Being such the case, it appeared that pupils in mountain schools performed better in the achievement test than those enrolled in lowland The researcher came out with this explanation, that, perhaps taking all things equal, pupils in mountain schools can concentrate in their studies with no bother because they are far from the poblacion where they can spend some of their time, no market day to go to, no other places to go to except their farms and school; whereas, the pupils in lowland can go to the poblacion anytime leaving their class, attend market day or go to computer center. In other words, they have more places to go to gallivant around than those residing in mountain schools. Therefore, type of school location was a correlate of achievement.

As regards school facilities, equipment and IMs and pupil achievement, the correlation coefficient posted at 0.253 denoting low correlation. However, the test of significance showed a computed t-value of 7.87 which was greater than the critical t-value of 1.64 at .05 level of significance. Hence, the hypothesis which states that

Correlation Coefficient Between Achievement of Monograde
Pupils and the Different School-Related Variates

Table 29

Variates	r <sub>xy</sub>	Fisher's t	Critical t*	Decision/Evaluation
School Distance from Homes of Pupils	0.081	2.44	1.64	Reject Ho
Type of School Location	-0.311	-9.84	1.64	Reject Ho
Adequacy of Facilities	0.253	7.87	1.64	Reject Ho

<sup>\*</sup> Level of significance = 903 &  $\alpha$  = 0.05

"there is no significant relationship between facilities, equipment and IMs and pupil achievement" was rejected. It clearly meant that adequacy of school facilities, equipment and IMs enabled pupils to perform better. The r-value being positive indicated that relationship that existed between the two variates directly proportional. That is to say that the more adequate are the school facilities, equipment and IMs the higher is the achievement; the less adequate, the lower is the achievement. On the basis of this finding, school facilities, equipment and IMs are correlates of pupil achievement.

In summary, all the considered school-related variates, namely: school distance, type of school location

and school facilities, equipment and IMs are correlates of monograde pupils' achievement.

## Relationship Between Achievement of <u>Multigrade Pupils and the Different</u> Variates

The study looked into the relationship between the achievement of multigrade pupils and the different pupil-related, teacher-related and school-related variates. The results of the correlational analysis are summarized in Tables 30-32.

<u>Pupil-Related Variates</u>. Table 30 contains the data on the correlational analysis done between pupil achievement and the pupil-related factors such as age, sex, attitude towards schooling, study habits, educational attainment of parents and parents' income.

Between pupil achievement and age, the correlational coefficient was pegged at -0.128 denoting a negligible relationship. But, when it was tested for significance, the computed t-value came out to be -3.07 which was numerically greater than the critical t-value of 1.64 at  $\alpha$  = .05. Thus, the hypothesis stating no relationship was rejected. It was found out that pupils' age had something to do with their achievement. With a negative r, it meant

that the relationship that existed between them was inversely proportional. Normally, one expects older pupils to achieve better, but with this kind of relationship, it does not follow. The study revealed that older pupils did not perform better than younger ones; it was the younger pupils who did. In this study, pupils' age was a correlate of pupil achievement.

In correlating pupils' achievement and pupils' sex, the computed r was 0.061 denoting negligible relationship. The test of significance with the use of Fisher's t, revealed a computed t-value of 1.45 which was numerically lesser than the critical t-value of 1.64 at .05 level of significance. Therefore, the hypothesis that "there is no significant relationship between pupils' achievement and their age" was accepted. The pupils' gender did not, in any way affect their achievement. The boys performed just as well than the girls, in this case. Hence, pupils' sex was considered a correlate of achievement.

The correlation coefficient computed between pupils' achievement and their attitude towards schooling, resulted in a r of 0.111 showing negligible relationship. Using Fisher's t-test to test its significance, the obtained t-value was 2.65 which was numerically greater than critical

t-value of 1.64 at  $\alpha$  = .05. The hypothesis which states that "there is no significant relationship between pupils' achievement and their attitude" was rejected. It simply meant that attitude towards schooling influenced pupil achievement. The positive correlation coefficient indicated that the relationship that existed between them was directly proportional. It further meant that the more favorable the attitude of pupils had, the higher they performed in class and vice versa. Pupils with this kind of attitude have better outlook in their studies and are serious in studying their lessons. From more favorable attitude, they develop interest in schooling, resulting in better performance in school. It could be said, therefore, that attitude was a correlate achievement.

As regards achievement and study habits, the computed r was 0.079 denoting negligible relationship. But the test of significance showed a Fisher's t-value of 1.88 which proved numerically greater than the critical t-value of 1.64 at .05 level of significance. Hence, the null hypothesis stating their relationship was rejected. Study habits affected the pupils' achievement. With the r being positive meant the relationship was directly proportional.

Meaning that the more favorable were the study habits of pupils, the expected achievement was greater. Less favorable study habits meant lower achievement. Study habits, in this study, was found to be a correlate of achievement.

Still included in Table 30 is the correlational analysis applied on pupil achievement and educational attainment of parents. As shown, the computed correlational coefficient was 0.081 denoting negligible When tested for its significance, the relationship. computed t-value resulted to 1.93, obviously, greater than the critical t-value of 1.64 at .05 level of significance. In this case, the null hypothesis involving relationship between the two variates was correspondingly It indicated that educational attainment of rejected. parents had a strong influence on pupil achievement. computed r being positive denoted that the relationship was directly proportional. That is to say that the higher is educational attainment of parents the higher is probability that the achievement of the multigrade pupils is higher. Educated parents, obviously, can assist their children in their assignments. Usually, they have positive outlook towards education and this inspires children to strive harder in their studies. Educational attainment was found out to be a correlate of achievement of multigrade pupils.

The correlational analysis between achievement and parents' income showed a correlation coefficient of -0.010 denoting a negligible relationship. The test significance using Fisher's t-test revealed a computed tvalue of -0.24 which was numerically lesser than the critical t-value of 1.64 at  $\alpha$  = .05. Thus, the hypothesis which states that "there is no significant relationship between pupil achievement and parents' income" was accepted. It meant that parents' income did not influence the achievement of multigrade pupils. It meant further that children still perform well in school even if the income was meager. Other factors like interest of the children in school, their attitude towards schooling, instructional factors and the like might have caused or influence the good performance of the pupils and not necessarily by their parents' income.

Thus, the correlates of pupil achievement relative to pupil-related variates were pupils' age, their attitude towards schooling, study habits and parents' educational attainment.

Correlation Coefficient Between Achievement of Multigrade
Pupils and the Different Pupil-Related Variates

Table 30

Variates	r <sub>xy</sub>	Fisher's t	Critical t*	Decision/Evaluation
Age	-0.128	-3.07	1.64	Reject Ho
Sex	0.061	1.45	1.64	Accept Ho
Attitude	0.111	2.65	1.64	Reject Ho
Study Habits	0.079	1.88	1.64	Reject Ho
Educational Attainment of Parents	0.081	1.93	1.64	Reject Ho
Income of Parents	-0.010	-0.24	1.64	Accept Ho

<sup>\*</sup> Level of significance = 565 &  $\alpha$  = 0.05

Teacher-Related Variates. The achievement of multigrade pupils was also correlated with certain teacher-related variates like age, sex, civil status, educational qualification, attitude towards multigrade teaching, lesson mastery for multigrade teaching, teaching experience and trainings attended. The results of the correlational analysis are contained in Table 31.

In correlating pupil achievement with teachers' age, the correlation coefficient was 0.458 denoting substantial relationship. Using Fisher's t-test to test its significance, the computed t-value posted at 2.25, which was numerically greater than the critical t-value of 1.729 at  $\alpha=.05$ . The hypothesis which states that "there is no significant relationship between pupil achievement and

teacher's age" was, therefore, rejected. It meant that the age of the teacher had something to do with the extent multigrade pupils performed in class. The computed r being positive meant that the relationship that existed between the two variates was directly proportional. It indicated that the older the teacher the greater was her impact on the achievement of pupils. Conversely, the younger the teacher, the lesser was her influence on pupil achievement. Older teachers have developed wisdom and discipline in his work such they are not contented with mediocrity in his outcome of teaching. They teach well and, correspondingly, results in good performance of his pupils. Hence, teacher's age was found to be a correlate of pupil achievement.

Pupil achievement when correlated with teacher's gender yielded correlation coefficients of -0.148 denoting negligible relationship. When tested for its significance, the computed t-value resulted to -0.65 which was numerically lesser than the critical t-value of 1.729 at .05 level of significance. Therefore, the null hypothesis relative to the relationship between the two variates was accepted. It meant that the teacher's gender did not affect the pupils' achievement. It meant, further, that multigrade pupils learned regardless of whether their

teacher was male or female. Hence, teacher's sex was not a correlate of pupil achievement.

As regards pupil achievement and teacher's civil status, the computed r was 0.322 denoting low correlation. The results of the Fisher's t-test was 1.48 which was numerically lesser than the critical t-value of 1.729 at  $\alpha$  = .05. The corresponding hypothesis involving the relationship between the two variates was accepted. Meaning, civil status of teachers had nothing to do with the performance of multigrade pupils. It indicated that multigrade pupils achieved under any teacher, whether he was single, married or separated. In this case, civil status was not a correlate of pupil achievement.

The correlational analysis between pupil achievement and educational qualification showed a computed r of 0.579 signifying substantial correlation. Testing its significance using Fisher's t-test, the computed t-value turned out to be 3.10 which was numerically greater than the critical t-value of 1.729 at  $\alpha$  = .05. Therefore, the hypothesis which states that "there is no significant relationship between pupil achievement and teacher's educational qualification" was rejected. It meant that the educational qualification of teachers contributed to the

pupils' performance in class. The relationship being directly proportional simply indicated that the higher was the educational qualification of a teacher the greater was the probability of improving the performance of multigrade pupils. Educationally qualified teachers learn much from their schooling especially on teaching strategies, managing teaching and learning and the like which enhance pupils ability. Educational qualification, therefore, was a correlate of pupil achievement.

Between pupil achievement and teacher's towards multigrade, the correlation coefficient was pegged low correlation. 0.381 denoting The test at significance using Fisher's t, revealed a computed t-value of 1.80 which was numerically greater than the critical tvalue of 1.729 at .05 level of significance. Thus, the null hypothesis involving the relationship between the two variates was correspondingly rejected. It meant that teacher's attitude toward multigrade was considered a factor that affected the achievement of multigrade pupils. Teachers with favorable attitude towards multigrade tend to be very serious and dedicated to her work. With this diligence, he can think of more than one way of making every pupil learn his lessons. With the relationship being directly proportional, it denoted that the more favorable the attitude of the teacher was, the higher was the expected achievement of pupils; conversely, the less favorable was the teacher's attitude, the lesser was the degree of the pupils' achievement. In this situation, attitude was a correlate of pupil achievement.

Pupil achievement was also correlated with lesson mastery of the teacher. The computed r was 0.399 which low correlation. When tested for indicated significance, the computed t-value posted at 1.90 which was numerically greater than the critical t-value of 1.729 at  $\alpha$ = .05. The hypothesis which stated that there was no significant relationship between pupil achievement and lesson mastery of the teacher was, therefore, rejected. meant that the mastery of the teacher about her lesson clearly pointed to the fact that it promoted and enhanced pupil learning. The r being positive simply meant that the relationship between the two variates was directly proportional. Meaning that the more the lesson was mastered by the teacher, the greater was the chance of raising pupil achievement; when less mastered the slimmer was the chance for pupils achieve higher. When the teacher has lesson mastery, she teaches spontaneously and could detect immediately errors in learning. When this happens,

the teacher could "shift gears" by changing the teaching strategy or learning tasks and activities. Lesson mastery, then, was a correlate of pupil achievement.

Between pupil achievement and teaching experience, the correlation coefficient was pegged at 0.510 denoting a substantial relationship. The test of significance revealed a computed t-value of 2.58 which was numerically greater than the critical t-value of 1.729 at .05 level of significance. Thus, the hypothesis which states that "there is no significant relationship between pupil achievement and teaching experience" was rejected. could be said that the experience of the teacher somehow influenced the pupils' achievement. As a teacher gains experience in her work, he acquires the expertise that makes pupils learn. "Experience is the best teacher," so they say. The r being positive indicated that the relationship was directly proportional. So, the longer is the the experience of the teacher better is their achievement. Teacher experience, then, was considered as a correlate of pupil achievement.

In relating pupil achievement and the trainings attended by teachers, the correlation coefficient posted at 0.554 suggesting a substantial relationship. When tested for its significance using Fisher's t-test, the computed t-

value was 2.90 which was numerically greater than the critical t-value of 1.729 at .05 level of significance. So, the null hypothesis relative to the relationship of the two variates was rejected. Trainings attended by teachers can help the teacher improve her teaching resulting in better achievement of pupils. Trainings provide useful ideas and strategies on making every lesson interesting, learnable and easier. With a positive r, it meant that the two variates relationship between the was proportional. Meaning, the more trainings attended, the better is the expected performance of the multigrade pupils, the fewer were the trainings attended, the lower is the expected performance from pupils. Hence, trainings was

Table 31

Correlation Coefficient Between Achievement of Multigrade
Pupils and the Different Teacher-Related Variates

Variates	r <sub>xy</sub>	Fisher's t	Critical t*	Decision/Evaluation
Age	0.458	2.25	1.729	Reject Ho
Sex	-0.148	-0.65	1.729	Accept Ho
Civil Status	0.322	1.48	1.729	Accept Ho
Educational Qualification	0.579	3.10	1.729	Reject Ho
Attitude toward MG	0.381	1.80	1.729	Reject Ho
Lesson Mastery for MG	0.399	1.90	1.729	Reject Ho
Teaching Experience	0.510	2.58	1.729	Reject Ho
Trainings Attended	0.554	2.90	1.729	Reject Ho

<sup>\*</sup> Level of significance = 19 &  $\alpha$  = 0.05

a correlate of pupil achievement.

Among the teacher-related variates, the following turned out to be the correlates of pupil achievement: teacher's age, educational qualification, attitude to multigrade teaching, lesson mastery, teaching experience and trainings attended.

<u>School-Related Variates</u>. Table 32 summarizes the correlational analysis between pupil achievement of multigrade pupils and the different school-related variates such as school distance, type of school location, and adequacy of facilities.

Between pupil achievement and school distance from homes of pupils, the correlation coefficient was 0.114 denoting negligible relationship. Using the Fisher's t to test its significance, the computed t-value posted at 2.73 which was numerically greater than the critical t-value of 1.64. Thus, the hypothesis which states that "there is no significant relationship between pupil achievement and school distance" was rejected. It pointed out that the distance of the school from the residence of pupils affected their achievement. This was so because pupils who lived far from the school tend to be tired due to travel and usually were not in the mind set at the start of

classes. Some of them had not eaten breakfast. Pupils who are tired and hungry normally cannot concentrate on the school tasks. The computed r being positive indicated that the relationship was directly proportional. It meant that the farther was the distance, the greater was its effect on pupil achievement; conversely, the nearer was the distance, the lesser was its effect. Thus, school distance was a correlate of pupil achievement.

In relating pupil achievement and type of school location the multigrade pupils went to, the correlation coefficient was -0.384 denoting low correlation. Testing its significance using Fisher's t, the computed absolute tvalue was pegged at 9.89 which was numerically greater than the critical t-value of 1.64 at .05 level of significance. Hence, the hypothesis that there was no significant relationship between pupil achievement and type of school location was rejected. It meant that the type of school location pupils went to, had something to do with how the pupils performed in their classes. Usually, one expects that pupils who go to lowland schools experience less cumbersome travel, than those who go to mountain schools, and therefore, will have less problems in learning. With a computed r being negative, the relationship can be said to be inversely proportional. Meaning that in this study,

pupils who went mountain school performed better in the achievement test than those who went lowland schools. Thus, type of school location was a correlate of pupil achievement.

regards to the relationship between pupil As achievement and adequacy of school facilities, equipment and IMs, the correlation coefficient was 0.353 denoting low However, when it was tested for correlation. significance, the computed t-value was 8.97 which was numerically greater than the critical t-value of 1.64 at .05 level of significance. It signalled the rejection of the hypothesis which stated that "there is no significant relationship between pupil achievement and adequacy of school facilities, equipment and IMs." It meant that availability and adequacy of school facilities, equipment and IMs affected the achievement of the multigrade pupils. With the computed r being positive, it meant that the relationship that existed between the two variates was directly proportional. Meaning, the more adequate are the school facilities, equipment and IMs, the better will be the expected achievement; conversely, the less adequate are facilities, the lesser is the expected achievement. Hence, school facilities, equipment and IMs was a correlate of pupil achievement.

In summary, the correlates of pupil achievement that were school-related were school distance from homes of pupils, type of school location and school facilities, equipment and IMs.

Table 32

Correlation Coefficient Between Achievement of Multigrade
Pupils and the Different School-Related Variates

Variates	r <sub>xy</sub>	Fisher's t	Critical t*	Decision/Evaluation
School Distance from Homes of Pupils	0.114	2.73	1.64	Reject Ho
Type of School Location	-0.384	-9.89	1.64	Reject Ho
Adequacy of Facilities	0.353	8.97	1.64	Reject Ho

<sup>\*</sup> Level of significance =  $565 \& \alpha = 0.05$ 

#### Chapter 5

#### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter contains the summary of findings, the corresponding conclusions as well as the recommendations that were drawn based on these findings and conclusions.

#### Summary of Findings

The following were the major findings of the study:

- 1. The monograde pupils had a mean age of 9.76 years with a SD of 2.20 years; while the multigrade pupils registered an average age 9.52 years with a SD of 2.26 years.
- 2. Of the 905 monograde pupils, 483 or 53.37 percent were girls and 422 or 46.63 percent were boys. Among the 567 multigrade pupils, 293 or 51.68 percent were girls and 274 or 48.32 percent were boys.
- 3. Both the monograde and multigrade pupils had favorable attitude towards schooling as indicated by their agreement with seven out of ten attitude indicators resulting to grand means of 3.91 and 3.90, respectively.
- 4. Both the monograde and multigrade pupils assessed themselves to have "Often practiced" nine out of 10 study habits resulting to grand means of 3.85 and 3.72,

respectively.

5. Among the parents of monograde pupils, majority of the fathers (221 or 24.42 percent) were high school level and another 221 or 24.42 percent were elementary level. On the other hand, majority of the mothers reached college level on account of 346 or 38.23 percent.

Among the parents of multigrade pupils, majority of both fathers and mothers were elementary level as there were 219 or 38.62 percent and 230 or 40.56 percent, respectively.

- 6. The modal family income of monograde parents was PhP 3,085.94 with a SD of PhP 2,784.82 while that of the multigrade parents, their modal family income posted at PhP 2,492.02 with a SD of PhP 2,192.57.
- 7. The mean age of the monograde teachers clustered around 40.22 years with a SD of 11.39 years; while the average age of multigrade teachers was pegged at 37.24 years with a SD of 9.81 years.
- 8. The civil status profile of monograde teachers showed that 32 or 71.11 percent were married; 11 or 24.44 percent were single; and two or 4.44 percent were either widows or widowers. Among the multigrade teachers, 15 or 71.43 percent were married; there were three or 14.29 percent in each of the single and widow/widower groups.

- 9. As to educational qualification, the majority of both monograde and multigrade teachers obtained a bachelor's degree with MA/MS units. There were 36 or 80.02 percent of the monograde teachers and there were 17 or 80.95 percent of the multigrade teachers.
- 10. Both the monograde and multigrade teachers were "undecided" on the attitude indicators as they assessed themselves with grand means of 3.26 and 3.42, respectively, interpreted as neutral attitude.
- 11. Both the monograde and multigrade teachers assessed themselves to have "high mastery" on the lessons they taught, as indicated by the grand means of 3.80 and 3.77, respectively.
- 12. As to teaching experience, the monograde teachers had an average of 11.96 years with a SD of 9.28 years; while the multigrade teachers had an average of 9.81 years, SD = 8.39 years.
- 13. Majority of the monograde teachers (29 or 64.65 percent) had not attended any training on multigrade teaching. Among the multigrade teachers, it appeared that all or 100 percent had trainings on multigrade teaching broken as follows: division level 10 or 61.90 percent; district level six or 28.57 percent; national level -

three or 14.29 percent; and regional level - two or 9.452 percent.

- 14. The monograde pupils lived at an average distance of 506.00 meters from the school while the multigrade pupils lived at an average distance of 488.26 meters away from school.
- 15. Majority of the monograde pupils went to mountain schools as supported by the figure, 460 or 50.83 percent of them. Among the multigrade pupils they were spread in three types of school location as follows: 185 or 32.63 percent went to carline schools; 177 or 31.22 percent attended lowland schools and 176 or 31.04 percent attended mountain schools.
- 16. Generally, monograde schools had school facilities, equipment and IMs as evidenced by the following: <a href="facilities">facilities</a> (classroom, comfort rooms, playground and gardens) 100 percent; canteen 88.89 percent; stage 66.67 percent; and library 44.44 percent; equipment (chalkboards, chairs/desks, bulletin boards, learning centers) 100 percent; tables 97.78 percent; and cabinets 84.44 percent); and <a href="instructional materials">instructional materials</a> (books/TX, teacher-made IMs, recycled materials, posters/charts, cutouts, activity cards) 100 percent; puzzles 95.56 percent.

Among multigrade schools the available facilities, equipment and IMs were the following: <a href="facilities">facilities</a>
(classroom, comfort rooms, playground, garden) - 100
percent; stage - 47.62 percent; library - 33.33 percent;
canteen - 14.29 percent); <a href="equipment">equipment</a> (chalkboard, table, chairs/desk, bulletin board, learning center) - 100
percent; cabinets - 61.9 percent; and <a href="instructional">instructional</a>
<a href="materials">materials</a> (books/TX, IMs, posters/charts, cutouts, activity cards, puzzles) - 100 percent.

- 17. Across grade levels, the achievement of monograde pupils was as follows: grade I obtained the highest MPS of 58.55 followed by grade II with 57.52, and grade IV with 56.86. Grade VI got the lowest MPS of 44.01. Across subject areas, the top three were Sibika/HKS with 54.54; Filipino with 54.34; and English with 52.92. EPP and MSEP scored lowest among them with 47.54 and 46.85, respectively. The grand MPS posted at 51.62.
- 18. In the multigrade classes, grades IV and V topped them all with MPS of 44.18 and 45.79, respectively. The lowest were grades I and II which got 40.48 and 41.77, respectively. Across learning areas, still Sibika/HKS and Filipino had the greatest MPS of 47.17 and 45.31, respectively. MSEP and Math obtained the lowest MPS of

- 40.74 and 40.66, respectively. The grand MPS was pegged at 43.15.
- 19. In comparing the achievement between the monograde and multigrade pupils in English, the computed t-value of 3.01 was found to be numerically greater than the critical t-value of 1.99 at .05 level of significance with 11 degrees of freedom. Thus, the hypothesis that "there is no significant difference between the performance of monograde and multigrade classes in English" was rejected.
- 20. Comparing the performance of monograde and multigrade pupils in Mathematics, the computed t-value posted at 3.09 which was numerically greater than the critical t-value of 1.99 at  $\alpha$  = .05, df = 78. Therefore, the hypothesis of no significant difference between the performance of the two groups in Mathematics was rejected.
- 21. The comparison of the achievement of the two categories of pupils in Science yielded a computed t-value of 3.00 which was numerically greater than the critical t-value of 1.99 at  $\alpha$  = .05, df = 79. It signalled the rejection of the hypothesis that there was no significant difference between the performance of monograde and multigrade pupils in Science.

- 22. In Filipino, the computed t-value turned out to be 2.62 which was evidently greater than the critical t-value of 1.99 at .05 level of significance with df = 79. Thus, the corresponding hypothesis relative to the monograde and multigrade pupils' performance in Filipino was rejected.
- 23. The computed t-value in comparing the performance of monograde and multigrade pupils in Sibika/HKS was 3.55 which was numerically greater than the critical t-value of 1.99 at  $\alpha$  = .05 and df = 79. Hence, the hypothesis postulated for the significant difference between the performance of the two categories of pupils in Sibika/HKS was rejected.
- 24. In MSEP, the computed t-value was 2.37 obviously greater than the critical t-value of 1.99 at .05 level of significance with 79 df. Therefore, the hypothesis relative to the difference between the performance of the monograde and multigrade classes in this learning area was rejected.
- 25. The comparative analysis made on the performance of the monograde and multigrade pupils in EPP resulted to a computed t-value 0.88 which was numerically lower than the critical t-value of 2.03 at  $\alpha$  = .05 and df = 36. Thus, the

hypothesis stating no significant difference in the performance of the two groups in EPP was accepted.

26. The correlational analysis done between the achievement of monograde pupils and the different pupil-related variates came out with the following results: age -0.157; attitude towards schooling, 0.120; study habits, 0.090; and educational attainment of parents, 0.070. The tests of significance applied on the r-values yielded with the following computed t-values: -4.77 for age; 3.64 for attitude; 2.72 for study habits; and 2.12 for educational attainment of parents which, obviously, were numerically greater than the critical t-value of 1.64 at .05 level of significance. The null hypotheses concerning the significant relationship between the pupils' achievement and the aforecited variates were rejected.

Whereas, between pupils' achievement and their sex and parents' income, the correlation coefficients were 0.043 and -0.008, respectively. The corresponding tests of significance posted at 1.30 and -0.25, respectively. These values were numerically lesser than the critical t-value of 1.64 at  $\alpha$  = .05. Hence, the hypotheses involving the relationship between pupils' achievement and the identified variates were accepted.

The relationship between monograde 27. achievement and the different teacher-related variates was evidenced by the following correlation coefficients: 0.353 for age; 0.306 for educational qualification; 0.440 for teaching experience; and -0.243 for trainings attended. Applying Fisher's t to test their significance, computed t-values were: 2.474 for age; 2.109 educational qualification; 3.216 for teaching experience; and -1.644 for trainings attended, which were numerically greater than the critical t-value of 1.64 at  $\alpha$  = .05. These gave the researcher enough evidence to reject the no significant relationship that "there is hypotheses between the monograde pupils' achievement and the mentioned teacher-related variates.

Between pupils' achievement and the remaining teacher-related variates, these were the correlation coefficients: sex, -0.066; civil status, 0.143; attitude towards multigrade teaching, 0.090; and lesson mastery, 0.132. When they were tested for their significance, the computed t-values were: -0.436 for sex; 0.947 for civil status; 0.593 for attitude; and 0.876 for lesson mastery which were all numerically lesser than the critical t-value of 1.64 at  $\alpha = .05$ . Therefore, the hypotheses involving

the relationship between pupils' achievement and the abovenamed teacher-related variates were accepted.

- 28. In relating pupils' achievement and the school-related variates, the correlation coefficients were: 0.081 for school distance; -0.311 for type of school location; and 0.253 for adequacy for facilities. The tests of significance showed computed absolute t-values of 2.44 for school distance; 9.84 for type of school location; and 8.87 for adequacy of facilities which proved numerically greater than the critical t-value of 1.64 at  $\alpha$  = .05. The null hypotheses relative to the significant relationship between pupils' achievement and the aforecited variates were rejected.
- between correlational analysis done 29. achievement of multigrade pupils and pupil-related variates to the following correlation coefficients resulted -0.128 for age; 0.111 for attitude towards schooling; 0.079 for study habits; and 0.081 for educational attainment of tested for When these values were parents. significance using Fisher's t, the computed absolute tvalues were: 3.07 for age; 2.65 for attitude; 1.88 for study habits; and 1.93 for educational attainment which incidentally were numerically greater than the critical t-

value of 1.64 at .05 level of significance. Therefore, the hypotheses involving the relationship of achievement of multigrade pupils and the aforesaid variates were correspondingly rejected.

Whereas, the correlation coefficients computed between pupil achievement and the other pupil-related variates such as pupils' sex and income of parents were 0.061 and -0.010, respectively. When tested for their significance, the computed absolute t-values were 1.45 and 0.24, respectively, which were numerically lesser than the critical value of 1.64 at  $\alpha$  = .05. Thus, the hypotheses stating no relationship between these two variates and achievement of multigrade pupils were accepted.

30. The correlation coefficients performed between achievement of multigrade pupils and teacher-related variates were the following: age - 0.458; educational qualification - 0.579; attitude towards multigrade teaching - 0.381; lesson mastery - 0.399; teaching experience - 0.510; and trainings attended - 0.554. Correspondingly when tested for their significance, the computed t-values were: age - 2.25; educational qualification - 3.10; attitude - 1.80; lesson mastery - 1.90; teaching experience - 2.58; and trainings attended - 2.990 which, incidentally,

were numerically greater than the critical t-value of 1.729 at .05 level of significance. The null hypotheses involving the relationship between achievement of multigrade pupils and the above-mentioned variates were rejected.

On the other hand, the computed r done between pupil achievement and teachers' sex and civil status resulted to -0.148 and 0.322, respectively. Using the Fisher's t to test their significance, the computed absolute t-values posted at 0.65 and 1.48, respectively which turned out to be numerically lesser than the critical t-value of 1.729 at .05 level of significance. This signalled the acceptance of the hypotheses concerning the relationship between pupil achievement and the two variates.

#### Conclusions

The following conclusions were drawn based on the foregoing findings.

1. Majority of the monograde pupils of Wright I and II districts involved in the study were grade III pupils; dominated by girls; had favorable attitude towards schooling; had very good study habits; whose parents were educated; whose income was below the poverty threshold of

PhP 10,000 (NEDA, 2000); lived far from the school; and went to mountain schools.

- 2. Majority of the multigrade in said districts were grade III pupils; dominated by girls; had favorable attitude towards schooling; had very good study habits; whose parents were less educated; whose monthly income was also below the poverty threshold; lived far from school; went to carline, lowland and mountain schools.
- 3. The monograde teachers were in their early forties; mostly married; educationally qualified; had a neutral attitude towards multigrade teaching; very good teachers; relatively experienced teachers; did not need training in multigrade teaching since they were teaching monograde classes.
- 4. The multigrade teachers were in their late thirties; mostly married; educationally qualified; possessed a neutral attitude towards multigrade teaching; equally good teachers; relatively experienced; and trained in multigrade teaching.
- 5. Basically, the monograde and multigrade grade schools had the appurtenant school facilities, equipment and instructional materials.
- 6. The achievement of monograde pupils was as follows: across grade levels, grade I performed best while

grade VI performed the least. Across subject areas, they performed best in Sibika/HKS and performed least in MSEP.

On the other hand, the achievement of multigrade pupils registered the following: across grade levels, grade V pupils performed best, while grade I performed the least. In terms of subject areas, they performed best in Sibika/HKS and least in Mathematics.

- 7. As the comparative analysis indicated, monograde pupils performed better than the multigrade pupils in six out of seven subjects tested. They performed just as well as the multigrade pupils in EPP. It could be explained by the fact that teaching in one-grade classes was more focused than in two or more-grade classes.
- 8. Based on the correlational analysis, pupils' age, their attitude towards schooling, their study habits, educational attainment of parents affected the achievement of monograde pupils. Hence, they were correlates of monograde pupils' achievement.
- 9. Among the teacher-related variates, age, educational background, teaching experience and trainings attended were the correlates of monograde pupils' achievement.

- 10. Of the school-related variates, school distance, type of school location and adequacy of facilities were correlates of monograde pupils' achievement.
- 11. The pupil-related variates that were found to be the correlates of multigrade pupils' achievement were their age, attitude towards schooling, study habits, and educational attainment of parents.
- 12. Among the teacher-related variates, age, educational qualification, attitude towards multigrade teaching, lesson mastery, teaching experience and trainings attended were the correlates of multigrade pupils' achievement.
- 13. Along school-related variates, the correlates of multigrade pupils' achievement were school distance, type of school location and adequacy of facilities.

#### Recommendations

The following recommendations are hereby made on the bases of the findings and conclusions drawn:

1. Generally, teaching in monograde and multigrade classes should be intensified across grade levels and learning areas. Their achievement levels are still far below the targetted mastery level of 75%. This can be done in the following ways: a) organize in-service trainings by

subject areas and grade levels for all monograde and multigrade teachers along content and strategies; b) strengthen pupils' study habits by proper monitoring and checking of the assignments; c) regular supervision of the monograde and multigrade teachers in order to assist them in their instructional tasks and to be on toes in their work; d) provision of necessary school facilities, equipment and IMs which impact on performance of monograde and multigrade pupils.

- 2. Increase the incentive pay of multigrade teachers commensurate to the hardship and hazards they undergo as they go about their work, particularly so, that these multigrade schools are very far and are located in mountainous places/barangays.
- 3. A plan should be drafted and made as a matter of policy of shifting multigrade teachers after three years of teaching to monograde classes. The practice of assigning new ones may be continued in distant schools and in multigrade classes so long the mentioned policy shall be adopted.
- 4. Equitable distribution of school facilities, equipment and IMs should be strictly implemented in order for the monograde and multigrade schools to function as

they should, to the depressed, disadvantaged and underserved groups.

- 5. "School for every school-less barangays" program should be assiduously continued and implemented to promote access to education and to narrow gaps in distance of schools. With every school in every barangay, pupils will no longer travel long distances just to attend school.
- 6. Strengthen the NFE program particularly the literacy cum livelihood for parents who have reverted to illiteracy after a long period of disuse of their literacy skills. The "Army Literacy Patrol System" (ALPS), an alternative delivery system intended for adults should be resorted especially in far-flung areas where peace and order is questionable. This requires coordination with the local Armed Forces of the Philippines.
- 7. Monograde and multigrade teachers should improve on their way of teaching and on their dealings with pupils to change the perceptions of these pupils about schooling which may lead to change of their attitude towards it.
- 8. Teachers should enroll in graduate schools to upgrade them in newer strategies of teaching as educational qualification was found to be a correlate of pupil achievement.

- 9. Minimize organization of multigrade classes.

  Quality should not be sacrificed for access.
- 10. In preparation for teaching multigrade classes, a course on multigrade teaching be a part of the preservice curriculum in the teacher-education institutions.
- 11. Updated curriculum materials and lesson plans should be developed to aid multigrade teachers in their work. This will lessen the load of these teachers in terms of daily preparation, instead, concentrate on their actual delivery of the lesson plans and IMs which require much of their time and effort.
- 12. The following research studies may be undertaken as sequel to this study:
  - 12.1 Development of multi-grade lesson plans and multi-level materials for multigrade teaching;
  - 12.2 Parallel study of this nature be conducted in other districts in the division;
  - 12.3 Parallel study relative to achievement of multigrade pupils in various types of school location.

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# APPENDICES

#### Appendix A

#### Samar State Polytechnic College Catbalogan, Samar

October 16, 2000

The Dean of the Graduate Studies Samar State Polytechnic College Catbalogan, Samar

Sir:

In my desire to start writing my thesis proposal, I have the honor to submit for approval, one of the following research problems, preferably no. 1:

- 1. Performance of Pupils in Monograde and Multigrade Classes in Wright I District: A Correlation
- 2. Development and Validation of Self-Learning Kit in Mathematics for Grade II Pupils in Wright I District
- 3. The Effect of the PVOSBM Approach in Teaching Reading for Grade I Pupils in Wright I District

Very truly yours,

(SGD.) LUZVIMINDA C. TABONES

Researcher

#### Recommending Approval:

- 1. (SGD.) ALFREDO D. DACURO, Ph.D.
- 2. (SGD.) ULRICO B. MUSTACISA, Ed.D.
- 3. (SGD.) THELMA C. QUITALIG, Ph.D.

#### Approved:

(SGD.) EUSEBIO T. PACOLOR, Ph.D.
Dean, Graduate Studies

#### Appendix B

### Republic of the Philippines SAMAR STATE POLYTECHNIC COLLEGE Catbalogan, Samar

#### **COLLEGE OF GRADUATE STUDIES**

Assignment of Adviser

Jan.	2,	2001
	Da	te

Dear: Dr. Dacuro,

Please be informed that you have been designated as adviser of <u>Luzviminda C. Tabones</u> candidate for the degree in <u>M.A. in Elem. Educ.</u> who proposes to write a thesis/dissertation on <u>"PERFORMANCE OF PUPILS IN THE MONOGRADE AND MULTIGRADE CLASSES IN THE DISTRICT OF WRIGHT AND I AND II: A CORRELATION."</u>

Thank you for your cooperation.

Very truly yours,

(SGD.) EUSEBIO T. PACOLOR, Ph.D. Dean

CONFORME:

(SGD.) ALFREDO D. DACURO, Ph.D.

Adviser

#### Appendix C

# Republic of the Philippines SAMAR STATE POLYTECHNIC COLLEGE Catbalogan, Samar

#### **COLLEGE OF GRADUATE STUDIES**

The Dean College of Graduate Studies Samar State Polytechnic College Catbalogan, Samar

Sir:

Jan. 2, 2001 Date

			"PERFORMANCE O
PUPILS IN THE MONOG	RADE AND MULTIG	RADE CLAS	SSES IN THE DISTRIC
OF WRIGHT AND I AND	II: A CORRELATION	."	
prepared and submitted by	Luzviminda C. Tabor	nes	
in partial fulfillment of the re	equirements for the deg	gree of Ma	ster of Arts in
Elementary Education	is recommended	for Pre/Fina	l oral examination on th
date and time convenient to	your office159.		

### (SGD.) ALFREDO D. DACURO, Ph.D. Adviser

ORAL DEI	FENSE
January 14,	2001
Sunday 14,	Day
1:30 pm	Time

SSPC GRADUATE SCHOOL Dean's Office

#### Appendix D

Republic of the Philippines
Department of Education, Culture and Sports
Region VIII
Catbalogan, Samar

February 5, 2001

The Schools Division Superintendent Division of Samar Catbalogan, Samar

Ma'am:

I have the honor to request permission to conduct my study entitled, "Correlates of Performance of Pupils in Monograde and Multigrade Classes in Districts of Wright I and II."

May I also request permission to use the Division Achievement Test in English, Mathematics, Science & Health, Filipino and Social Studies for Grades I to VI as my test instruments to get the performance of my respondents.

Rest assured that utmost care will be taken to keep the integrity of the test materials intact. I also promise that the materials will be used for research purposes only.

I hope for your kind consideration and approval.

Very truly yours,

(SGD.) LUZVIMINDA C. TABONES

Researcher

RECOMMENDING APPROVAL:

(SGD.) ALFREDO D. DACURO, Ph.D. Adviser

APPROVED:

(SGD.) THELMA C. QUITALIG, Ph.D. CESO VI Schools Division Superintendent

#### Appendix E

Republic of the Philippines
Department of Education, Culture and Sports
Region VIII
Division of Samar

February 12, 2001

The District Supervisor Motiong District Motiong, Samar

Ma'am:

I am a masteral student of Samar State Polytechnic College (SSPC), Catbalogan, Samar, and is conducting a research study entitled, "Correlates of Performance of Pupils in Monograde and Multigrade Classes in Districts of Wright I and II." Prior to the actual conduct of this study, however, there is a need to validate my instruments and I have chosen Brgy. Bayog Elementary School and Brgy. Oyandic Primary School, Motiong District, as my sample school.

In view hereof, may I request permission to validate my research instrument in your District on the third week of February, 2001.

Your kind and favorable consideration on this request is earnestly solicited.

Very truly yours,

(SGD.) LUZVIMINDA C. TABONES

Researcher

Approved:

(SGD.) MRS. LOURDES A. GARCIA
District Supervisor

#### Appendix F

Republic of the Philippines
Department of Education, Culture and Sports
Region VIII
Division of Samar
District of Wright - I
Paranas, Samar

October 22, 2001

The District Supervisor District of Wright - I Paranas, Samar

Ma'am:

I have the honor to request permission to conduct my study entitled, "Correlates of Performance of Pupils in Monograde and Multigrade Classes in Districts of Wright I and II."

Further, may I be permitted to administer division achievement test to pupils and questionnaires to teachers of the said district on October, 2001.

Your kind and favorable action on this request would be highly appreciated.

Very truly yours,

(SGD.) LUZVIMINDA C. TABONES

Researcher

Approved:

(SGD.) MILA O. REBOSURA
District Supervisor
Wright I

/st

Republic of the Philippines
Department of Education, Culture and Sports
Region VIII
Division of Samar
District of Wright - II
Paranas, Samar

October 22, 2001

The District Supervisor District of Wright - II Paranas, Samar

Ma'am:

I have the honor to request permission to conduct my study entitled, "Correlates of Performance of Pupils in Monograde and Multigrade Classes in Districts of Wright I and II."

Further, may I be permitted to administer division achievement test to pupils and questionnaires to teachers of the said district on October, 2001.

Your kind and favorable action on this request would be highly appreciated.

Very truly yours,

(SGD.) LUZVIMINDA C. TABONES

Researcher

Approved:

(SGD.) MA. CORAZON D. DAVANTES

District Supervisor

Wright II

### Appendix G

### Questionnaire for Teachers

	Date
Dear Respondent,	
entitled "Correlates of Pe Monograde and Multigrade Clas I and II" as a requirement f	conducting a research study rformance of Pupils in the ses in the Districts of Wright for a master's degree, and you at knowing that you can furnish
Please answer the enclose as you can. Whatever you confidential and will be used	sed questionnaire as accurately u write them, will be kept for research purposes only.
Thank you for your most	valued cooperation.
	Very truly yours,
(S	GD.) LUZVIMINDA C. TABONES  Researcher
I. PERSONAL PROFILE	
Direction: Please answer to or writing the	he following items by checking needed information.
Name:	Age: Sex:
Civil Status: /7 Single	Teaching Experience: yrs.
☐ Married	
/ Widow/Wi	dower

		ted			
Educational Qua	alification:		Ed.D./Ph.D	).	
			MA w/ Ed.D	)./Ph.D.	units
			MA/MS		
			BS w/ MA/M	S units	
			BS only		
Type of School	Location:		Carline		
			Seacoast		
			Mountainou	s/Hilly	
			Lowland		
Trainings atter	nded in Multiq	grade	:		
Level	No. of	f Tim	<u>e</u>	No. of	Hours
National					
Regional					
Division					
District					
II. ATTITUDE TO	OWARDS MULTIGE	RADE			
Direction:	Below are son attitude toward you really for Please check agreement or by using the	ards a eel al oppo disa scal	multigrade bout teachi site each s greement to e below:	teaching ng an Mo tatement	g. How do G class? t your
	4 - Agree 3 - Uncerta		(	A) U)	
	2 - Disagre			D)	
	1 - Strong	ly Di	sagree (	SD)	

	Indicators	5 (SA)	4 (A)	3 (U)	2 (D)	1 (SD)
1.	I enjoy teaching a multigrade class.					
2.	I deem it a big challenge being assigned to handle a MG class.					
3.	I anticipate the day of my meeting with the children with excitement and enthusiasm.					
4.	I do not mind if the class is noisy.					
5.	I do not mind if the classroom is topsy-turvy.					
6.	I wish I had a monograde class at the end of the day.					
7.	I do not mind even if it takes a great deal of preparation each day.					
8.	I look forward to the day when I will be transferred to a monograde class.					
9.	I am resigned to my fate as an MG teacher so I just make good of it.					
.0.	I wish that incentives be regularly given to MG teachers as an inspiration to them.					
.1.	Others (Please specify)				h	

#### III. LESSON MASTERY OF MG TEACHERS

Direction: Below are indicators of lesson mastery of the subjects in the grade levels you are teaching. How good are you? Do you really have the mastery of your lesson? Please check opposite each indicator your opinion using the scale below.

5		Extremely Mastered	(EM)
^		_	(HM)
4	_	Highly Mastered	
3	-	Moderately Mastered	(MM)
2	_	Slightly Mastered	(SM)
1		Not Mastered	(MM)

	Indicators	5 (SA)	4 (A)	3 (U)	2 (D)	1 (SD)
1.	I do not look at the text or notes while teaching.	(SA)	(A)	(0)	(D)	(50)
2.	I have my boardwork and independent activities for each group ready.					
3.	I can teach/discuss spontaneously with my pupils.					
4.	I have my IM's ready before facing the class.					
5.	I ask the appropriate question at the right time.					

#### IV. ADEQUACY OF FACILITIES, EQUIPMENT, IMS

Direction: Below are the necessary teaching facilities, equipment and instructional materials in MG.

How adequate are these in your school? Please indicate the number that are available in your school opposite each facility, equipment and IMs.

	Facilities/Equipment/IM	Actual No. Available
Α.	Facilities	
	1. Classroom	
	2. Comfort Room/Toilet	
	3. Library	
	4. Playground	
	5. Canteen/Kitchen	
***************************************	6. Garden	
	7. Stage	
в.	Equipment	
	1. Chalkboard	
	2. Tables	
	3. Chairs/desks	
	4. Bulletin Boards	

Facilities/Equipment/IM	Actual No. Available
5. Learning Centers/Stations	
6. Cabinets	
C. Instructional Materials	
<ol> <li>Books/Textbooks/Reference book Workbooks</li> </ol>	s/
2. Teacher made materials	
<ol> <li>Recyclable materials like stic straws/bottle caps</li> </ol>	ks/
4. Posters	
5. Cut-out pictures	
6. Charts	
7. Activity cards	
8. Puzzles	

# Appendix H

# Questionnaire for Pupils

	Date
Dear,	
Ini nga tagsurat may-ada kabataan ha grado nga I ngadt hini nga sorbey.	a ginhihimo nga sorbey ha mg to ha VI. Iguin-aapi ko ika
Alayon la pagbaton hit mo pagsurat o tsek han imo bato makaka-iban hit imo grado, ka makatirok ako hin igo nga impo aton mga klase.	ly an tuyo la han sorbey, ng
Salamat han imo pagbulig	nga mahuman ini.
(SG	GD.) <b>LUZVIMINDA C. TABONES</b> Tagsurat
I. PERSONAL NGA DATOS	
Direksiyon: Isurat o tsek	ke ( /} an imo baton.
Ngaran:	Lalaki Monograde
Edad:	☐ Babaye ☐ Multigrade
Pira ka metro o kilometro	o an kahirayo han imo balay ha
iskwelahan?	
metros	
kilometros	s
Edukasyon han mga kag-ana	ak:

	Gradwado ha collegio
	Collegio preo deri gradwado
	Gradwado han hayskol
	Hayskol pero waray pakatapos
	Gradwado han elementarya
	Elementarya pero waray makatapos
	Waray pakaeskwela
Kita ha	n mga kag-anak: Tatay - P
	Nanay - P

## II. Attitude Han Eskwela Hit Iya Pag-aram

Direksyon: Ha ubos mababasa mo an mga inaabat o opinyon hin mga kabataan bahin hit pag-eskwela.

Nauyon ka ba o dire? Tseke an yungod han kada opinyon pinaagi hin paggamit hini nga taramdan:

5 - Lubos Nga Nauyon (LN) 4 - Nauyon (N) 3 - Deri Piho (DP) 2 - Deri Nauyon (DN) 1 - Lubos Nga Deri Nauyon (LDN)

	Mga Pag-abat	5 (LN)	4 (N)	3 (DP)	2 (DN)	1 (LDN)
1.	Karuyag ko umiskwela.	(/				
2.	Naruruyag ako hit akon titser.		_			
3.	Naruyag ako nga damo kami nga grado dida hit amon klase.					
4.	Nalilipay ako hit amon ginbubuhat.			•		
5.	Diri ko la gin-aasi bisan kon maaringasa hin duro it panleksyon dara hit amon kadamo nga grado.					

	Mga Pag-abat	5	4	3	2 (DM)	1 (TDM)
6.	Diri ko la gin-aasi kon usahay masamok it panleksyon dara hit amon kadamo nga grado.	(LN)	(N)	(DP)	(DN)	(LDN)
7.	Nahihibaro man ako bisan kon grupo- grupo an pagtutdo ni Ma'am.					
8.	Binubuligan ko hi Ma'am it iba nga buruhaton sugad hit pagsaway, pangaro pagpasa hit libro, etc.					
9.	Nahuyo ako ha klase basi deri ako makadugang pakasamok kan Ma'am pagtutdo.					
10.	Permi ko ginhuhulat an adlaw nga may klase.					
11.	Iba pa (Isurat na la):					

## III. NABATASAN NGA PAG-ARAM HAN ISWELA

Direksyon: Ha ubos mababasa mo an mga nahigagaraan nga pag-aram hin usa nga iskwela. Ginbubuhat mo ba ini? Tseke ha yungod han kada buruhaton an imo baton pinaagi hin paggamit hini nga taramdan.

5	_	Pirmi binubuhat	(PB)
4	_	Agsob buhaton	(AB)
3		Igo la nga guinbubuhat	(ILG)
2	_	Danay guinbubuhat	(DaG)
1	_	Diri quinbubuhat	(DiG)

Mga Buruhaton Pag-aram	5 (PB)	4 (AB)	3 (ILG)	2 (DaG)	1 (DiG)
1. Nag-aaram ako kun gab-i.					
<ol><li>Napabulig ako hit akon pag-aram/ assignment.</li></ol>					
<ol><li>Guinsusurat ko an amon leksyon ha kwaderno.</li></ol>					

SAN AND		5	4	3	2	1
	Mga Buruhaton Pag-aram		(AB)	(ILG)	(DaG)	(DiG)
4.	Guinbabalik ko pagbasa an akon guinsurat pag-abot ko ha balay.					
5.	Nag-aaram ako bisan waray ha akon nagtututdo.		3			
6.	Nagapil ako pagbasa imbes magkita hit TV o magmulay.					
7.	Gintitimos ko it akon mga gamit pagkatapos ko mag-aram.					
8.	Karuyag kon nga guinpapaki-anhan ako bahin hit akon guin-aadman.					
9.	Pag-abot ha iskwelahan, nag-aaram pa ako imbes nga mag-mulay.					
10.	Permi ako nagbabasa didto hit amon class library.					

#### CURRICULUM VITAE

NAME:

Luzviminda C. Tabones

ADDRESS:

Paranas, Samar

PLACE OF BIRTH:

Alegria, San Isidro, Northern Samar

DATE OF BIRTH:

April 23, 1968

PRESENT POSITION:

Teacher In-Charge

STATION:

Lipata Elementary School

Paranas, Samar

CIVIL STATUS:

Married

#### EDUCATIONAL BACKGROUND

Elementary . . . . Alegria Barangay Elementary School

San Isidro, Northern Samar

1975 - 1980

Secondary. . . . . Alegria Barangay High School

San Isidro, Northern Samar

1980 - 1984

College . . . . . Samar Regional School of Fisheries

Catbalogan, Samar

1984 - 1987

Samar College

Catbalogan, Samar

1990 - 1993

Graduate Studies . . Samar State Polytechnic College

Catbalogan, Samar

Curriculum Pursued . Master of Arts

Major . . . . . . Elementary Education

#### CIVIL SERVICE ELIGIBILITY

- Career Service Sub-Professional Examination, Catbalogan, Samar, 1988.
- Professional Board Examination for Teachers, Catbalogan, Samar, 1992.

#### POSITION HELD

Elementary Grade Teacher . . . District of Pinabacdao 1993 - 1994

Elementary Grade Teacher . . . Apolonia Elementary School Paranas, Samar 1994 - 2002

Teacher In-Charge . . . . . Lipata Elementary School Paranas, Samar 2002 to present

#### TRAININGS/SEMINARS AND WORKSHOPS

- Regional Training on Multigrade Teaching held RELC Candahug, Palo, Leyte on May 17-21, 1996
- DECS-BEE Training on Multigrade Instruction held at the Ecotech Center, Lahug, Cebu City on May 24-28, 1999
- Core Group Training on Kabataan Para sa Kalusugan at Kalikasan (KKK) Health and Eco-Scouts Project/CYFP held at Brgy. Apolonia, Paranas, Samar on Sept. 25-27, 1999
- DECS-CCFPI Phase III Training-Workshop on Multigrade Instruction held at the Ecotech Center, Lahug, Cebu City on May 15-19, 2000
- Division Training Workshop on Multigrade Instruction as Facilitator held at the BSP Building, Catbalogan, Samar on July 19-21, 2000

- Assessment Camp on the Health and Eco-Scouts Project held at Peñafrancia Resort, Naga City on June 4-5, 2002
- District-Based Training on the 2002 Basic Education Curriculum held at Wright Central School, Paranas, Samar on April 29 - May 3, 2002

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