

**LEARNING STYLES AND ACADEMIC PERFORMANCE OF GRADE 6  
STUDENTS IN THE DISTRICT OF TARANGNAN: BASIS FOR  
AN INTERVENTION PROGRAM**

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**MASTER OF ARTS IN EDUCATION**

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In partial fulfillment of the requirements for the degree in **MASTER OF ARTS IN EDUCATION** major in **EDUCATIONAL MANAGEMENT**, this thesis entitled "**LEARNING STYLES AND ACADEMIC PERFORMANCE OF GRADE 6 STUDENTS IN THE DISTRICT OF TARANGNAN: BASIS FOR AN INTERVENTION PROGRAM**" has been prepared and submitted by **ARVIE M. PACLE** who, having passed the comprehensive examination, is hereby recommended for oral examination.

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## DEDICATION

*I humbly dedicate this piece of work.....*

*To my beloved parents;*

*Arnol and Leah,*

*for their unfailing love, support, and encouragement for  
being an inspiration to us, I dedicate all of my victories to you.*

*To my precious gems;*

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*To our Almighty God;*

*for blessing us with knowledge, strength, motivation, patience,  
determination, and dedication in accomplishing this work.*

*We all offer this back to Him.*

*Arvie*

### ABSTRACT

**RESEARCH TITLE** : **LEARNING STYLES AND ACADEMIC PERFORMANCE OF GRADE 6 STUDENTS IN THE DISTRICT OF TARANGNAN: BASIS FOR AN INTERVENTION PROGRAM**

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#### **Abstract:**

This study determined the learning styles and the academic performance of the Grade 6 students in Tarangnan District, Division of Samar during the School Year 2017-2018. Specifically, this sought to answer the following questions: 1) what is the profile of the student-respondents in terms of the following personal characteristics, namely: age and sex, nutritional status,

obtained grades in English, Science, Mathematics, TLE, and MAPEH along: written work, performance task, and quarterly examinations, number of days of attendance in school for the first and second quarters, preferred seats in the classroom, preferred mode of participation in the class, parents' highest educational attainment, parents' occupation, gross monthly family income, attitude toward schooling, and study habits; 2) what is the profile of the teacher-respondents in terms of the following personal characteristics: age and sex, civil status, highest educational attainment, teaching position, gross monthly family income, number of years in teaching, latest performance rating based on the IPCRF, number of instructional materials used for the first and second quarters, types of instructional materials prepared, number of relevant in-service trainings, and attitude toward teaching.

Likewise, this study answered the following questions:

3) what is the academic performance of student-respondents based on the mean grade of the first and second quarters; 4) is there a significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the following factors: student-related factors, and teacher-related

factors; 5) what are the learning styles of the student-respondents in terms of the following areas: visual, aural, verbal, physical, logical, social, and solitary; 6) are there significant differences in the learning styles of the student-respondents in terms of the aforementioned areas when grouped according to their personal characteristics; 7) is there a significant relationship between the learning styles of the student-respondents in terms of the identified areas and the following factors: student-related factors, teacher-related factors, and academic performance of the student-respondents based on the mean grade of the first and second grading quarters; and 8) what intervention program may be evolved from the findings of the study.

From the afore-listed specific questions, the following hypotheses were tested: 1) there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the following factors: student-related factors, and teacher-related factors; 2) there are no significant differences in the learning styles of the student-respondents in terms of the identified areas when grouped according to their personal characteristics; and 3) there is no significant relationship between the learning styles of the student-respondents in terms of the



identified areas and the following factors: student-related factors, teacher-related factors, and academic performance of the student-respondents based on the mean grade of the first and second grading quarters.

From the findings of the study, it was revealed that in associating relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the student-related factors, it was significant along preferred seats and preferred mode of participation.

Likewise, in associating relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the teacher-related factors, it was significant along number of relevant in-service trainings and attitude toward teaching.

Meanwhile, the learning styles of the student-respondents were: visual, frequently practiced; aural, sometimes practiced; verbal, sometimes practiced; physical, frequently practiced; logical, sometimes practiced; social, sometimes practiced; and solitary, frequently practiced and in the comparison of the learning styles of the student-respondents when grouped according to their personal factors, it was significant along obtained grades, number of days in attendance in school, preferred seats in the

classroom, preferred mode of participation in the class, parents' highest educational attainment, parents' occupation, gross monthly family income, attitude toward schooling, and study habits.

Furthermore, in associating relationship between the perceived learning styles of the student-respondents and their personal-related factors, it was significant along age, nutritional status, number of days of attendance in school, preferred seats in the classroom, preferred mode of participation in the class, gross monthly family income, attitude toward schooling, and study habits. Moreover, in associating relationship the between the learning styles of the student-respondents and the teacher-related factors, it was found significant along attitude toward teaching only.

Finally, in associating the relationship between the perceived learning styles of the student-respondents and their academic performance based on the mean grade of the first and second quarters, the evaluation was significant.

# TABLE OF CONTENTS

	<b>Page</b>
<b>TITLE PAGE</b> . . . . .	i
<b>APPROVAL SHEET</b> . . . . .	ii
<b>ACKNOWLEDGMENTS</b> . . . . .	iii
<b>DEDICATION</b> . . . . .	v
<b>ABSTRACT</b> . . . . .	vi
<b>TABLE OF CONTENTS</b> . . . . .	xi
<b>LIST OF TABLES</b> . . . . .	xiv
<b>LIST OF FIGURES</b> . . . . .	xvii
 <b>Chapter</b>	
<b>1 THE PROBLEM AND ITS BACKGROUND</b> . . .	1
Introduction . . . . .	1
Statement of the Problem . . . . .	5
Hypotheses . . . . .	8
Theoretical Framework . . . . .	9
Conceptual Framework . . . . .	12
Significance of the Study . . . . .	16
Scope and Delimitation . . . . .	18
Definition of Terms . . . . .	18
 <b>2 REVIEW OF RELATED LITERATURE AND STUDIES</b> . . . . .	 24
Related Literature . . . . .	24
Related Studies . . . . .	29

<b>3</b>	<b>METHODOLOGY</b>	<b>39</b>
	Research Design	39
	Locale of the Study	40
	Instrumentation	42
	Validation of Instrument	45
	Sampling Procedure	47
	Data Gathering Procedure	48
	Statistical Treatment of Data	50
<b>4</b>	<b>PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA</b>	<b>57</b>
	Profile of Student-Respondents	57
	Profile of Teacher-Respondents	77
	Academic Performance of Student- Respondents	90
	Relationship Between the Academic Performance of the Student- Respondents and the Identified Factors	91
	Learning Styles of the Student- Respondents	115
	Comparison of the Learning Styles of the Student-Respondents When Grouped According to Their Personal Characteristics	129
	Relationship Between the Learning Styles of the Student-Respondents and the Identified Factors	139
<b>5</b>	<b>SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS</b>	<b>163</b>
	Summary of Findings	163

Conclusions . . . . .	169
Recommendations . . . . .	175
<b>6 LEARNING STRATEGIES INTERVENTION PROGRAM . . . . .</b>	<b>177</b>
<b>BIBLIOGRAPHY . . . . .</b>	<b>187</b>
<b>APPENDICES . . . . .</b>	<b>191</b>
A Approval of Research Title . . . . .	192
B Assignment of Adviser . . . . .	193
C Questionnaire for Student- Respondents . . . . .	194
D Questionnaire for Teacher- Respondents . . . . .	207
E Letter for Pre-Oral Defense . . . . .	211
F Letter Request for Permission to the Schools Division Superintendent to Field Questionnaires . . . . .	212
G Letter Request for Permission to the School Administrators to Field Questionnaires . . . . .	213
<b>CURRICULUM VITAE . . . . .</b>	<b>214</b>

# LIST OF TABLES

Table		Page
1	Table of Reliability . . . . .	47
2	Number of Respondents of the Study by School . . . . .	49
3	Table of Linear Association . . . . .	55
4	Age and Sex of Student-Respondents . . . . .	58
5	Nutritional Status of Student- Respondents . . . . .	59
6	Obtained Grades in English of Student- Respondents . . . . .	60
7	Obtained Grades in Science of Student- Respondents . . . . .	61
8	Obtained Grades in Mathematics of Student-Respondents . . . . .	62
9	Obtained Grades in TLE of Student- Respondents . . . . .	63
10	Obtained Grades in MAPEH of Student- Respondents . . . . .	64
11	Number of Days of Attendance in School of Student-Respondents . . . . .	66
12	Preferred Seat in the Classroom by Student-Respondents . . . . .	67
13	Preferred Mode of Participation in Class by Student-Respondents . . . . .	68
14	Parents' Highest Educational Attainment of Student-Respondents . . . . .	69
15	Parents' Occupation of Student- Respondents . . . . .	70
16	Gross Monthly Family Income of	

	Student-Respondents . . . . .	71
17	Attitude Toward Schooling of Student- Respondents . . . . .	72
18	Study Habits of Student-Respondents . . . . .	75
19	Age and Sex of Teacher-Respondents . . . . .	78
20	Civil Status of Teacher-Respondents. . . . .	79
21	Highest Educational Attainment of Teacher-Respondents . . . . .	80
22	Teaching Position of Teacher-Respondents . .	81
23	Gross Monthly Family Income of Teacher- Respondents . . . . .	82
24	Number of Years in Teaching of Teacher- Respondents . . . . .	83
25	Latest Performance Rating of Teacher- Respondents Based on the IPCRF . . . . .	84
26	Number of Instructional Materials Used by the Teacher-Respondents . . . . .	85
27	Type of Instructional Materials Prepared by the Teacher-Respondents . . . . .	86
28	Number of Relevant In-Service Trainings of Teacher-Respondents . . . . .	88
29	Attitude Toward Teaching of Teacher- Respondents . . . . .	89
30	Academic Performance of Student- Respondents Based on the Mean Grade of the First and Second Grading Periods . . . . .	90
31	Relationship Between the Academic Performance of the Student-Respondents Based on the Mean Grade of the First and Second Grading Periods and Their Personal Characteristics . . . . .	92

32	Relationship Between the Academic Performance of the Student-Respondents Based on the Mean Grade of the First and Second Grading Periods and the Teacher- Related Characteristics . . . . .	104
33	Learning Styles of the Student- Respondents in Terms of Visual . . . . .	116
34	Learning Styles of the Student- Respondents in Terms of Aural . . . . .	118
35	Learning Styles of the Student- Respondents in Terms of Verbal . . . . .	120
36	Learning Styles of the Student- Respondents in Terms of Physical . . . . .	122
37	Learning Styles of the Student- Respondents in Terms of Logical . . . . .	124
38	Learning Styles of the Student- Respondents in Terms of Social . . . . .	126
39	Learning Styles of the Student- Respondents in Terms of Solitary . . . . .	128
40	Differences in the Learning Styles of the Student-Respondents When Grouped According to Their Personal Characteristics . . . . .	130
41	Relationship Between the Perceived Learning Styles of the Student-Respondents and Their Personal-Related Factors . . .	141
42	Relationship Between the Perceived Learning Styles of the Student-Respondents and the Teacher-Related Factors . . . . .	152
43	Relationship Between the Perceived Learning Styles of the Student-Respondents and their Academic Performance . . . . .	161



**LIST OF FIGURES**

<b>Figure</b>		<b>Page</b>
1	The Conceptual Framework of the Study . . . . .	14
2	The Map of the Locale of the Study . . . . .	41

## **Chapter 1**

### **THE PROBLEM AND ITS BACKGROUND**

#### **Introduction**

Learning styles (LSs) have been defined as the composite cognitive, affective, and physiological characteristics that are relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment (Reston, 1987:2). Bruner et al. (1967:2) described how humans assimilate knowledge about the environment through four sensory modalities: visual like observing pictures, symbols or diagrams, auditory such as listening, discussing, visual or iconic as reading and writing, and kinesthetic like using tactile sensory abilities such as smell and touch.

Many tools have been developed over time to understand how individuals learn such as the Vermunt's inventory, Kolbe learning style indicator, Meyer Brigg Indicator, Flemming's Visual, Aural, Read/Write, and Kinesthetic (VARK) questionnaire, etc. (Cassidy et al., (2004:24). VARK is an acronym for Visual, Aural, Read or Write, and Kinesthetic (Fleming, 1992:11). Some examples of the VARK learning style preferences (LSPs) are: visual like looking at and making pictures, animations, graphs, tables, etc.;

aural such as listening to and participating in speeches, discussions, and question answer sessions; read or write like reading and writing text associated with the textbook, class notes, laboratory reports, etc. and kinesthetic such as engaging in physical experiences, manipulating objects, etc. (e.g. laboratories).

Individual potential can be tied to one's preferences to learning; thus, Gardner's focus on human potential lies in the fact that people have a unique blend of capabilities, skills and intelligences. Gardner asserts that people who have an affinity toward one of the intelligences do so in concert with other intelligences as they develop skills and solve problems. Instruction which is designed to help students develop their strengths can also trigger their confidence to develop areas in which they are not as strong. Student's multiple learning preferences can be addressed when instruction includes a range of meaningful and appropriate methods, activities and assessments.

In line with the implementation of the Enhanced Basic Education Act of 2013 or known as Republic Act No. 10533, the Department of Education is adopting the enclosed Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program. As stipulated in DepEd Order No. 8,

series of 2015, which states that classroom assessment is an integral part of curriculum implementation. It allows the teachers to track and measure learners' progress and to adjust instruction accordingly. Classroom assessment informs the learner, as well as their parents and guardians of their progress.

Recent research has made it fairly clear that different students have different learning styles (Baykan et al., 2007:31). Learning styles are significantly different in males and females (Dobson, 2009:31). Read-write and kinesthetic learners who adopt a deep approach learning strategy perform better academically than do the auditory, visual learners who employ superficial study strategies (Kumar et al., 2011:2). Much work has been done on studying the individual learning preferences and how instructional methods can be tailored to cater to the different styles. (Latha et al., 2009:3). However, individualization of instructional methods has not been shown to contribute significantly to learn outcomes (Cook et al, 2009:14). Studies have also shown that the most effective learners are able to adapt to the style which the learning situation requires (Hattie, 1996:66). The teachers can help students to develop strategies for adapting to differing situations,

especially when learning styles do not fit to a task (Vaughn, 2001:23). Awareness of learning styles can create a better learning environment by enabling students to use appropriate strategies (Kumar, 2010:44).

The best learning "style" for benefitting from instruction is to avoid depending upon any single style, or any style-like consistency in approach (Kirby, 1988:229). It has been advocated that learners take a very flexible approach to instruction, so to optimize what they get out of each formal instructional situation that is useful in the long term, not just useful for coping with the instructional situation in the short-term. Developing the flexibility to respond productively to all sorts of instructional situations would be a laudable goal for medical students (Pask, 1988:83-100). Therefore, the aim of this study was to determine the impact of awareness of learning styles and motivating students by externally regulated strategies to use mixed methods of learning.

In the District of Tarangnan, varied learning styles are manifested by the Grade 6 students which resulted to the differentials in their academic performance. The overall average of the obtained grades of the Grade 6 students along: written work; performance task; and quarterly examinations during the first and second quarters were:

English, 81.67; Science, 81.64; Mathematics, 82.57; TLE, 82.56; and MAPEH, 82.32.

### **Statement of the Problem**

This study determined the learning styles and the academic performance of the Grade 6 students in Tarangnan District, Division of Samar during the School Year 2017-2018.

Specifically, this sought to answer the following questions:

1. What is the profile of the student-respondents in terms of the following personal characteristics:

1.1 age and sex;

1.2 nutritional status;

1.3 obtained grades in English, Science, Mathematics, TLE, and MAPEH along:

1.3.1 written work;

1.3.2 performance task; and

1.3.3 quarterly examinations?

1.4 number of days of attendance in school for the first and second quarters;

1.5 preferred seats in the classroom;

1.6 preferred mode of participation in the class;

- 1.7 parents' highest educational attainment;
- 1.8 parents' occupation;
- 1.9 gross monthly family income;
- 1.10 attitude toward schooling; and
- 1.11 study habits?

2. What is the profile of the teacher-respondents in terms of the following personal characteristics:

- 2.1 age and sex;
- 2.2 civil status;
- 2.3 highest educational attainment;
- 2.4 teaching position;
- 2.5 gross monthly family income;
- 2.6 number of years in teaching;
- 2.7 latest performance rating based on the IPCRF;
- 2.8 number of instructional materials used for the first and second quarters;
- 2.9 types of instructional materials prepared;
- 2.10 number of relevant in-service trainings; and
- 2.11 attitude toward teaching?

3. What is the academic performance of student-respondents based on the mean grade of the first and second quarters?

4. Is there a significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the following factors:

4.1 student-related factors; and

4.2 teacher-related factors?

5. What are the learning styles of the student-respondents in terms of the following areas:

5.1 visual;

5.2 aural;

5.3 verbal;

5.4 physical;

5.5 logical;

5.6 social; and

5.7 solitary?

6. Are there significant differences in the learning styles of the student-respondents in terms of the aforementioned areas when grouped according to their personal characteristics?

7. Is there a significant relationship between the learning styles of the student-respondents in terms of the identified areas and the following factors:

7.1 student-related factors;

7.2 teacher-related factors; and



7.3 academic performance of the student-respondents based on the mean grade of the first and second grading quarters?

8. What intervention program may be evolved from the findings of the study?

### **Hypotheses**

From the afore-listed specific questions, the following hypotheses were tested:

1. There is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the following factors:

1.1 student-related factors; and

1.2 teacher-related factors.

2. There are no significant differences in the learning styles of the student-respondents in terms of the identified areas when grouped according to their personal characteristics.

3. There is no significant relationship between the learning styles of the student-respondents in terms of the identified areas and the following factors:

3.1 student-related factors;

3.2 teacher-related factors; and

3.3 academic performance of the student-respondents based on the mean grade of the first and second grading quarters.

### **Theoretical Framework**

This study found theoretical basis in the Theory of Multiple Intelligences of Gardner (Eysenk, 1994: 192-193). This theory states that there are eight kinds of intelligences that exist in humans each relating to a different sphere of human life and activity. These multiple intelligences include verbal-linguistic, visual-spatial, body kinesthetic, auditory-musical, logical mathematical, interpersonal communication, intrapersonal communication, and naturalist.

According to Gardner, schools must strive to develop on intelligences, at the same time, recognize that children would usually excel at only one or two of them and should not be penalize for this.

As applied to this study, the ability of the children to perform in their classes depends on their learning styles which may, in turn, be dependent on the kind of intelligences they have which may be categorized according to the eight classifications postulated by Gardner.

As such, teachers should tailor their instruction in order to develop the kind of learning styles which are effective enough to enhance the multi-intelligences in their pupils (Eysenck, 1994: 192-193).

As assessment of the academic performance of students does not cater exclusively on factors such as general weighted average in all subject areas but also in other factors which may be inherent from their teachers such as their teaching strategies which, in turn, may be influenced by past experiences which have been learned from the environment.

As such, this study found basis on Dewey's Theory of Experience. Dewey (<http://wilderdom.com>) stated that the authoritative, strict, pre-ordained knowledge approach of modern traditional education was too concerned with delivering knowledge, and not enough with understanding pupils' actual experiences.

Further, he stressed that an educator must take into account the unique differences between each students, in terms of their different genetic predispositions and in terms of past experiences (<http://wilderdom.com>). These differences exist even when a standard curricula is presented using established teaching strategies. Thus,

teaching and curriculum must be designed in ways that allow for such individual differences.

The education stakeholders should be given opportunity to lobby for policies that should enhance the development of appropriate teaching strategies among the teachers. The teaching strategies of the teachers should be suited to the differences in academic performance of students.

This study was also based on Vygotsky's Theory of Social Development. Vygotsky (1998:332) said that social interaction profoundly influences cognitive development. He also said that traditionally schools have not promoted environments in which the students play an active role in their own education as well as their peers. It is required that that the teacher and students should play untraditional roles as they collaborate with each other. Instead of a teacher dictating her meaning to students for future recitation, a teacher should collaborate with her students in order to create meaning in ways that pupils can make their own. Learning becomes a reciprocal experience for the students and teachers (Vygotsky 1998:322).

As such, this study was anchored on Bandura's Theory of Social Learning. Bandura (1977) stated that learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own

actions to inform them what to do. Fortunately, most of the human behavior is learned observationally through modeling: from observing others, one forms an idea of how new behaviors are performed, and on later occasions, this coded information serves as a guide for action. Because it encompasses attention, memory, and motivation, social learning theory spans both cognitive and behavioural frameworks.

The above factors explain the degree in which pupils can be influenced to form learning styles or habits and improve in academic performance.

### **Conceptual Framework**

Figure 1 presents the conceptual framework of the study.

The base frame reflects the locale of the study which is Tarangnan District under the Division of Samar involving the Grade 6 students and teachers as respondents of the study. This frame is connected by the upward arrow, depicting the progress of the study, to the next group of boxes enclosed by a bigger box which represents the independent and dependent variables of the study.

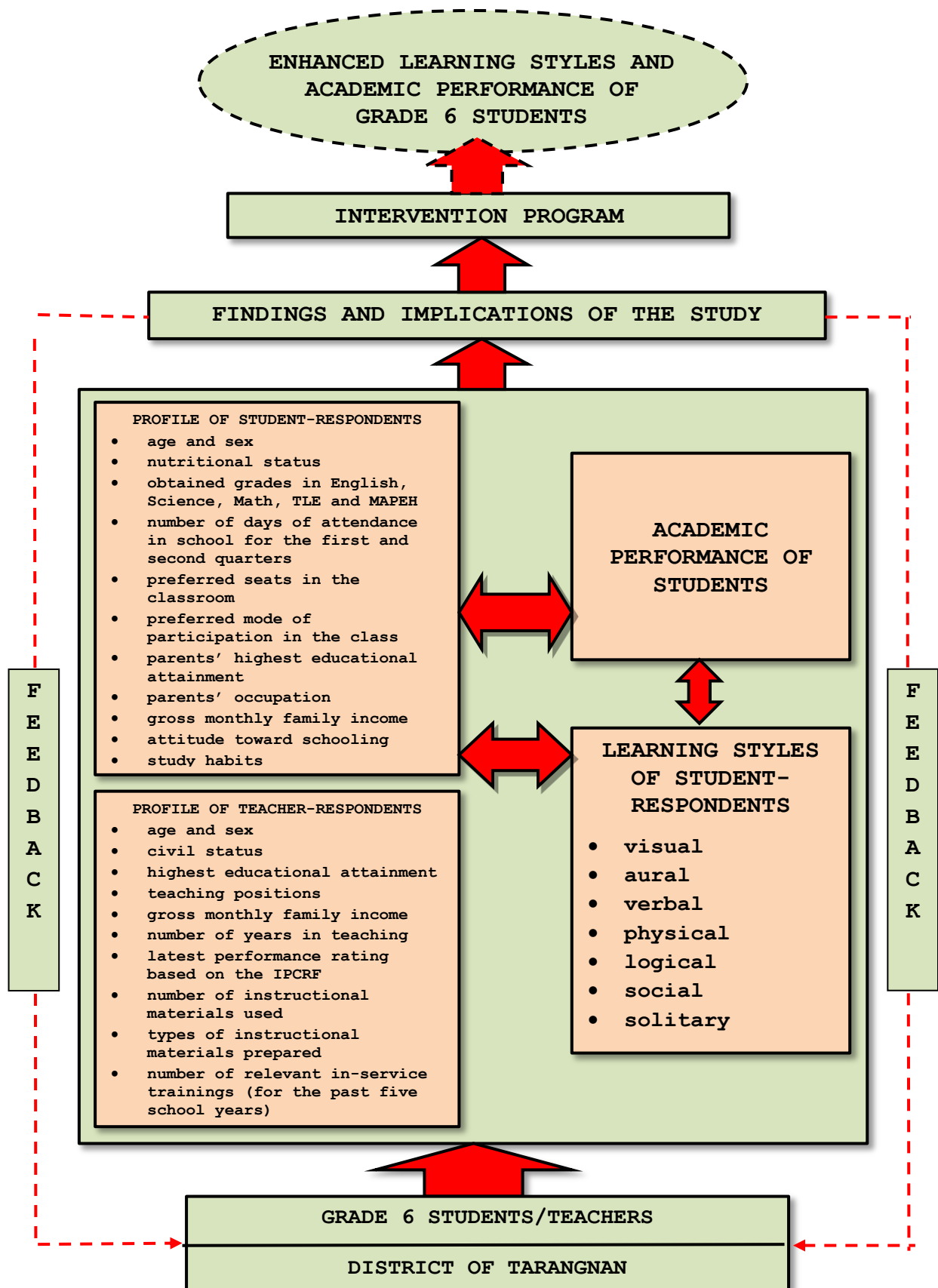
The box at the left in the upper frames enclosed by a bigger box reflects the profile of student-respondents in

terms of age and sex, nutritional status, obtained grades in English, Science, Math, TLE and MAPEH, number of days of attendance in school for the first and second quarters, preferred seats in the classroom, preferred mode of participation in the class, parents' highest educational attainment, parents' occupation, gross monthly family income, attitude toward schooling and study habits.

Then, the lower frames enclosed by another box reflects the profile of teacher-respondents in terms of age and sex, civil status, highest educational attainment, teaching position, gross monthly family income, number of years in teaching, latest performance rating based on the IPCRF, number of instructional materials used, types of instructional materials prepared and number of relevant in-service training (for the past five school years).

While, the upper box at the right shows the academic achievement of student-respondents based on the mean grade of the first and second grading periods; and the bottom box reflects the learning styles of the student-respondents in terms of the following areas: visual; aural; verbal; physical; logical; social; and solitary, whereby differences was looked into when grouped according to the profile variates of the pupil-respondents.

The two-headed arrows at the center denoted that the



**Figure 1.** The Conceptual Framework of the Study

on the mean grade of the first and second quarters were research process that was undertaken in this study, that is, the academic achievement of student-respondents based associated with their profile variates to determine any linear relationship existing between the two variables. Likewise, the learning styles of the student-respondents in terms of the identified areas were also associated with their profile variates to determine any linear relationship existing between these variables. Furthermore, the vertical two-headed arrow placed in between the academic achievement of student-respondents based on the mean grade of the first and second quarters and the study habits of the student-respondents in terms of the identified areas signified that these variables were associated for any linear relationship existing between the two.

Again, this group of variables are connected by the upward arrow to the next frame which is the findings and implications of the study. This denoted that after going through with the identification of the profile variates of the student-respondents, academic achievement, and learning styles, and administering the correlation processes, the findings and implications of the study were drawn that served as inputs to the intervention program proposed depicted in the next frame and led to the attainment of the



ultimate goal of the study which is enhanced learning styles of Grade 6 pupils.

Moreover, the findings and implications of the study provided also a feedback mechanism to the locale and respondents of the study whereby they would be informed with the implications of the study to provide them the opportunity to redirect their learning styles and, thereby, led to the attainment also of the ultimate aim of this study.

#### **Significance of the Study**

The following would benefit from the findings of the study, namely: students, teachers, school administrators, DepEd officials, parents, and future researchers.

**To the Students.** The students are the direct beneficiaries of the teachers' knowledge, skills and attitudes. If the teachers have imparted the right kind and amount of knowledge, skills and positive attitude toward the subject, then, they would have better academic performance. This would also give them idea as to their own learning styles to improve their academic performance in their respective subjects. Knowing the attitude toward teaching of their teachers, they could adjust easily in terms of their own learning styles and study habits.

**To the Teachers.** The teachers would benefit from the results of this study with their current work practices inside the classroom in order for the students to improve their academic performance. They would be able to adjust their strategies and provide appropriate learning experiences suited to the learning styles they use inside the classroom that would lead the students to develop learning styles and, thereby, improve their academic performance.

**To the School Administrators.** The result of this study would serve as inputs to school administrators in the administration of their respective school, specifically in providing appropriate facilities, tools and support for the preparations of instructional materials and planning of programs to enhance learning styles and improve academic performance in order to attain better quality education.

**To the DepEd Officials.** The findings of this study would enable the DepEd officials to provide technical assistance to school heads and develop interesting programs which would address students' learning styles.

**To the Parents.** The results of this study would help the parents to understand their children, provide support, and monitor students' performance to develop their learning styles and improve academic performance in school.

**To the Future Researchers.** This would give future researchers knowledge as to the type of studies they could conduct. This would give them idea to conduct studies that are related to learning styles and pupils' academic performance.

### **Scope and Delimitation**

This study covered the determination of the profile of student-respondents in terms of age and sex, nutritional status, obtained grades in English, Science, Math, TLE and MAPEH, number of days of attendance in school for the first and second quarters, preferred seats in the classroom, preferred mode of participation in the class, parents' highest educational attainment, parents' occupation, gross monthly family income, attitude toward schooling and study habits as well as their learning styles in terms of the following areas: visual; aural; verbal; physical; logical; social; and solitary and their academic performance in school based on the mean grade during the first and second quarters and its relationships.

It involved 251 Grade-6 students and 36 teachers among complete elementary schools in the District of Tarangnan, Division of Samar.

This study was conducted during the School Year 2017-2018.

### **Definition of Terms**

The following terms used in this study are defined conceptually or operationally:

**Academic Performance**. It is defined as the actual accomplishment as distinguished from potential ability, capacity or attitude (Good, 1959:7). In this study, this refers to the mean grade obtained by Grade 6 students during the first and second quarters.

**Aural**. This term refers to the learning style in which a person likes to work with sound and music and having a good sense of pitch and rhythm or rhyme to remember things, e.g. phone numbers, passwords, and other little sayings. (<https://www.learning-styles-online.com/style/auralauditorymusical/> 15 January 2018). Operationally, the term have the same meaning as its conceptual definition.

**Implication**. It is defined as significance, that is, a meaning that is not expressly stated but can be inferred (wordnet.princeton.edu, 15 January 2018). In this study, this referred to the action or state of being involved in something, which was inferred from the results of the present study.

**Instructional Material.** This term refers to any collection of materials including animate and inanimate objects and human and non-human resources that a teacher may use in teaching and learning situations to help achieve desired learning objectives (<https://www.deped.org/instructional> materials, 15 January 2018). Operationally, the term have the same meaning as its conceptual definition.

**Intervention.** This term refers to the act or fact of taking action about something in order to have an effect on its outcome. It is more than just a strategy they have specific, formalized steps to address an academic need or to help struggling learners. (<https://www.merriam-webster.com/dictionary/> intervention, 15 January 2018). Operationally, the term have the same meaning as its conceptual definition.

**Learning Styles.** It refers to the preferential way in which the student absorbs, processes, comprehends and retains information differently (<https://teach.com/what/teachers-know/learning-styles/>, 15 January 2018). In this study, this referred to the manner of acquiring or gaining knowledge of the Grade 6 students in the District of Tarangnan.

**Logical.** This term refers to the learning style in which a person likes logic games and brainteasers including chess and other strategy games such as crosswords puzzle, scrabble and word games. ([https://www.learningstyles\\_online.com/style/logicalmathematical/](https://www.learningstyles_online.com/style/logicalmathematical/), 15 January 2018). Operationally, the term have the same meaning as its conceptual definition.

**Mode of Participation.** This term refers to the activities involving class participation which encourage students to be active participants in classroom activities and encourage them to take responsibility for their learning (<https://info.lse.ac.uk/staff/divisions/Teaching-and-Learning-Centre/Assets/Documents/Using-class-participation-to-develop-student-engagement>, 15 January 2018). In this study, the term defined as a way or manner in which the Grade 6 students participates actively in the classroom setting in the District of Tarangnan, Division of Samar.

**Physical.** This term refers to the learning style in which learning takes place by the students carrying out physical activities like sports, exercise and playing team games such as basketball, volleyball and football rather than listening to a lecture or watching demonstrations (<https://dictionary.com/> Kines-thetic learning, 15 January

2018). Operationally, the term have the same meaning as its conceptual definition.

**Seating Arrangement.** This term refers to the physical setup of chairs, tables, and presentation in a classroom which significantly influence learning (McCorskey et al, 1978:27). Operationally, the term have the same meaning as its conceptual definition.

**Social.** This term refers to the learning style in which a person likes getting out of the house and being with others at parties and other social events. (<https://www.learning-styles-online.com/style/social-interpersonal/> 15 January 2018). Operationally, the term have the same meaning as its conceptual definition.

**Solitary.** This term refers to the learning style in which a person have a personal or private interest or hobby that he likes to do alone ([https://www.learning-styles-online.com/ style/ solitary](https://www.learning-styles-online.com/style/solitary) intrapersonal/ 15 January 2018). The term was used in this study in the same way as it is defined in the foregoing statement.

**Verbal.** This term refers to the learning style in which a person easily express herself whether its verbal or written and also can give clear explanations to others. (<https://www.learning-styles-online.com/style/verbal-linguistic/>, January 15, 2018). The term was used in this

study in the same way as it is defined in the foregoing statement.

**Visual**. This term refers to the learning style in which a persons like visual arts, painting, sculpture and prefer using images, pictures, colors, and maps to organize information and communicate with others. (<https://www.learning-styles-online.com/style/visual-spatial/> 15 January 2018). This term was used in this study in the same context as it is defined above.



## **Chapter 2**

### **REVIEW OF RELATED LITERATURE AND STUDIES**

This chapter presents the related literature and studies reviewed by the researcher which are sourced from books, journals, and other published materials, as well as theses and other unpublished materials, including internet sources.

#### **Related Literature**

This section presents the citation taken from books, journals, and other published materials, including internet sources which are deemed relevant to the study at hand.

A considerable literature exists on the application of learning styles research to accounting education. Learning style is the composite of characteristic cognitive, affective and other psychological factors that serve as an indicator of how an individual interacts with and responds to the learning environment.

Learning is the pre-requisite concept of learning style. Jonassen and Grabowski (1993:14) defined learning as the change due to experience. They go on to distinguish between learning as a product which explains the end result or outcome of the learning experience; learning as a

process which emphasizes what happens during the course of the learning experience in attaining a given learning product or outcome; and learning as a function which emphasizes certain critical aspects of learning, such as motivation, retention, and transfer which makes behavioral changes in human learning possible.

Fleming and Baume (2006:34) said that the term learning style speaks to the understanding that every student learns differently. Technically, an individual's learning styles refer to the preferential way the student absorbs, process, comprehend and retain information. It has been proven many times that parents and teachers influence the development of children in school and at home, yet affected by the environment.

According to Keefe (1987:14), learning style is described as the characteristic cognitive, effective, and psychosocial behaviors that serve as relatively stable indicators of how learners perceive, interact with, and respond to the learning environment. It is a preferential mode, through which a student likes to master learning, solve problems, thinks or simply reach in a pedagogical situation.

Stewart and Felicetti (1992:323) defined learning styles as those "educational conditions under which a

student is most likely to learn." Thus, they are not really concerned with what learners learn, but rather how they prefer to learn. Learning styles are points along a scale that help us discover the different forms of mental representations; however, they are not good characterizations of what people are or are not like. When people try to learn something new they prefer to learn it by listening to someone talking to them, or perhaps they prefer to read about a concept to learn it, or perhaps see a demonstration.

The said idea is supported by Pashler et al. (2008:324) who stressed that proponents for the use of learning styles in education said: teachers should assess the learning styles of their students and adapt their classroom methods to best fit each student's learning needs. Although there are ample evidences for differences in individual thinking and ways of processing various types of information, only few studies have reliably tested the validity of using different learning styles in education, and shown that students will learn best if taught in a method deemed appropriate for their learning style.

The concept of learning style is used to describe individual differences in the way people learn. Each person has a unique way to absorb and process experiences and

information. Confounding research and, in many instances, application of learning style theory has begun the myriad of methods used to categorize learning styles. No single commonly accepted method currently exists, but alternatively several potential scales and classifications are in use. Most of these scales and classifications are more similar than dissimilar and focus on environmental preferences, sensory modalities, personality types, and/or cognitive styles. Lack of a conceptual framework for both learning style theory and measurement is a common and central criticism in this area.

Dunn and Dunn (1993:55-56) are of the view that learning style is composed of biological and developmental characteristics that make identical instructional environments, methods and resources effective for some learners and ineffective for others. The results of the learning style inventory based on Dunn and Dunn model indicate the individual elements in the five basic stimuli that affect an individual's ability to master new and difficult academic information and skills. The first stimulus strand focuses on biologically imposed environmental elements preferences for sound, light, etc. The second stimulus strand points out the emotional elements like motivation and responsibility. The third

stimulus strand highlights the sociological preferences namely working alone, in pairs, with peers, as part of a team, and others.

Moreover, the preferences for sociological pattern as opposed to learning in a variety of ways are also a learning style trait. The fifth stimulus strand indicates the physiological characteristics namely the perceptual preferences like auditory, visual, kinesthetic, and others. These preferences either enable or prevent students from achieving easily. The global versus analytic processing style is a characteristic in the fifth strand.

No person is affected by all learning style elements. Individual's vastly different combination of learning style preferences can explain why there is no single instructional method that is effective for all students

Gardner (1993) suggested that there are a number of different intelligences which different learners possess in different amounts. According to him, teaching should be geared to students' specific intelligence. The students' learning styles should be first measured and then adopt teaching to the individual preferences of the students.

O'Sullivan et al. (1994:38) investigated how teachers who are trained to use learning styles and how learning style laboratory tutoring programme can

assist at risk incoming high school students. The results showed that six of the treatment groups realized an improvement in grades, but the number of students in the treatment group with failing grades suggested that the treatment was not effective.

Sims and Sims (1995:101-105), in the book on "The Importance of Learning Styles: Understanding the Implications for Learning, Course design, and Education", discussed models of different learning styles, instruments to evaluate learning styles, and techniques for assessing individual learning characteristics as well as the future of learning style research and its implications for enhancing learning in higher education institutions.

Moreover, students are characterized by different learning styles, preferentially focusing on different types of information and tending to operate on perceived information in different ways (Schmeck, 1988:324). To improve learning English, it has a second language that needs more information about the learning styles that students prefer in second language classes. Therefore, in this research investigated relationship between learning styles and academic performances of students in English as a second language class in Iran.

The foregoing citations established the need for the conduct of the study through its insights and ideas it outlined.

### **Related Studies**

Likewise, the researchers reviewed several studies to strengthen the rationale of the study at hand.

Sinnerton et al. (2014) investigated the "Awareness of Educator About Learning Style Preferences to Enhance Education and Training of Allied Health Professionals." Results found that encouraging educators in allied health programs had a positive impact on the teaching and learning process. It was also observed that by employing various strategies; educators can help the students to study according to their according to their learning style preferences, engage more deeply with the course content and hence improve overall student outcome for training in allied health programs. learning style preferences, engage more deeply with the course content and hence improve overall student outcome for training in allied health programs.

The study of Sinnerton et al. (2014) posed bearing with the present study in as much as the variable included in the two studies were similar, the learning styles of

students. However, the two studies differed in the respondents of the study. The previous study focused on learning style preferences to enhance the education and training of allied health professionals while the present study focused on the learning styles and academic performance of Grade 6 students in the District of Tarangnan.

Al-qahtani and Al-gahtani (2014) conducted a study on "Learning Styles of Saudi Dental Students Using Kolb's Learning Style Inventory". Result indicated the diverging learning style was dominant styles among the sample. They also found that students preferred the assimilating style during their early pre-clinical years and preferred the learning the diverging style during their later clinical years.

The foregoing study was similar to the present study in the sense that both studies dealt with learning styles. However, the two studies differed in its focus and locale of the study. The former focused on the learning style inventory which was conducted abroad while the present study dealt on the learning styles and academic performance of Grade 6-students in the District of Tarangnan.

The study conducted by Mohammadi and Thanghinejad (2014) on Common Learning Styles of Nursing Students in



Iran with Kolb's Learning Style Inventory" whereby results revealed that in order to enhance students learning, more attention has been required to different learning styles. It was also found out that teachers pay more attention in student's learning style and use appropriate teaching methods.

The foregoing study was similar to the present study in the sense that both studies dealt with learning styles. However, the two studies differed in its focus and locale of the study. The former focused on the learning style of nursing which was conducted abroad while the present study dealt on the learning styles and academic performance of Grade 6 students in the District of Tarangnan.

Bostron and Hallin (2013) performed the "Comparative Analysis of Learning Style Difference Between Nursing and Teaching Students in Sweden." The study involved 78 teaching students and 78 nursing students. Twenty subscales of the productivity environmental preference survey (PEPS) were used to identify the participants' learning style preferences. The results showed statistically significant difference between the two students' groups. In comparison to teaching students, nursing students were highly kinesthetic than the education students.

The foregoing study was similar to the present study in the sense that both studies dealt with learning styles. However, the two studies differed in its focus and locale of the study. The former focused on the learning style inventory which was conducted abroad while the present study dealt on the learning styles and academic performance of Grade 6 students in the District of Tarangnan.

Tulbur (2013) studied on the "Relationships Between Teaching Strategies, Learning Styles and Student Achievement in Higher Education. Sample of 269 pre-service teachers from the three universities were taken and data collected through survey method with the use of the One way analysis of variance. Significant differences among three categories of students with different majors occurred in relation with the most effective teaching strategies corresponding to each category of learning styles.

The foregoing study was similar to the present study in the sense that both studies dealt with learning styles. However, the two studies differed in the focus of the study. The former focused on the learning style inventory while the present study dealt on the learning styles and academic performance of Grade 6 students in the District of Tarangnan.

In the study of Alberto (2009) entitled, "Learning Styles Characteristics as Related to Conditions of Learning, Area of Interest, and Mode of Learning," he found out that the first-year college and university students preferred personal relationship with the instructor, clearly organized course work, and specific assignments and requirements over other conditions of learning, such as studying alone, being highly competitive with peers, or relying on authority. Moreover, the area of interest revealed that working with people was first choice, second choice was working with inanimate objects, numeric was third choice, and qualitative was fourth choice. Direct experience and visuals were the preferred models of learning as opposed to listening and reading. With reference to gender, males relied more on peers, working independently, use of numbers, and manipulation of concrete objects than did females. There was also a relationship between majors or college disciplines to learning style. Students in the disciplines of Mathematics, Science and Education selected the applied or combination applied styles while students in humanities, business, and social science selected conceptual or combination conceptual styles. All major areas had students who preferred the

social or combination social categories as opposed to independent or independent combination categories.

The study of Alberto is similar to the present study considering that the two studies focused on learning styles of students. However, the scope of the study posed difference between the two studies. The previous study focused on the learning styles characteristics as related to the conditions of learning, area of interest, and mode of learning while the present study focused on the learning style of students as related to their academic performance.

Johnson and Johnson (2007), in their study on "Learning Style and Preference for Online Learning Support", found that among the four indices of learning styles of students (active-reflective, visual-verbal, sequential-global, sensing-intuitive) active learners expressed preference for face to face study groups rather than online study groups and for online quizzes rather than pencil and paper quizzes. Visual learners expressed preference for online quizzes rather than online study groups.

The study of Johnson and Johnson was similar to the present study in the sense that both studies delved into learning styles as an area for the study. However, the two studies differed in the process of the conduct of the study

and the respondents of the study. The former study focused more on the preference of students in various academic activities and the learning styles they possessed. The study at hand delved into learning styles and academic performance of Grade-6 students in the District of Tarangnan.

In the study of Malathi and Malini (2007) on the "Relationship Between Learning Style and Achievement Among Higher Secondary Students of Chennai," it revealed that there is high correlation between learning style and achievement, which implies that higher the achievement better was the learning style among higher secondary students.

The study of Malathi and Malini posed similarity with the study at hand in the area and the variable delved into which was the learning style of the students. However, the two studies differed. The previous study focused more on the relationship between learning styles and achievement of secondary students while the present study associated the learning style of the Grade 6 students and their academic performance in the District of Tarangnan.

Rayneri et al. (2007) in their study on the "Learning Styles of Gifted Middle School Students, Students' Perceptions of the Classroom Environment and Possible

Connections Between Learning Style, Classroom Environment and Achievement Levels” involving 80 gifted students from Grades 6, 7 and 8 were administered the Learning Style Inventory (LSI) to identify student learning preferences. The study found that learning styles of gifted students have correlation with achievement in all content areas and 8 were administered the Learning Style Inventory (LSI) to identify student learning preferences. Furthermore, the study found that learning styles of gifted students have correlation with achievement in all content areas.

The foregoing study was similar to the study at hand considering that it, too, delved on students’ learning style in identifying students learning preference. However, the two studies differed in the scope of the study. The study of Rayneri et al. delved on the correlation between the learning styles and the achievement of gifted middle school students in all content courses while the present study focused on the learning styles and academic performance of Grade 6 students in the District of Tarangnan.

Hawk and Shah (2007), in their study, “Learning Styles of Students and Their Abilities That Are Not in Their Natural Modes and Preference,” have indicated that students can and should develop their

abilities that are not in their natural modes and preference. This is possible only if they are aware that learning style does exist in individuals and that not all individuals learn in the same way.

The study of Hawk and Shah posed bearing with the present study in as much as the variable included in the two studies was similar, the learning styles of students. However, the two studies differed in the scope of the study. The previous study indicated that students can develop their abilities that are not in their natural modes and preference while the present study focused on the learning styles and academic performance of Grade 6 pupils in the District of Tarangnan.

Schellans et al. (2007), in their study on "Learning in Asynchronous Discussion Groups", highlighted the significant impact on the intensity of interaction of students in a group. The study also projected the impact of student's learning style on the achievement of the individual.

The study of Schellans et al. posed resemblance with the present study due to the fact that learning style was considered as one of the variables of the study which was similar to the present study. However, the two studies differed in the process of the study. The previous study

delved on the impact of students' learning style on their achievement while the present study focused on the learning style and the academic performance of Grade-6 students in the District of Tarangnan.

The foregoing studies cited strengthened the motivation for the conduct of the study. The findings served as inputs in its conceptualization.



## **Chapter 3**

### **METHODOLOGY**

This chapter presents the procedures used in this study. It describes the research design, locale of the study, instrumentation, validation of instrument, sampling procedure, data gathering procedure, as well as the statistical tools in the treatment of the data.

#### **Research Design**

This study employed the descriptive-correlation research design in order to meet the major objectives of the study. The study was descriptive considering that it elicited the profile of the student-respondents in terms of their demographic characteristics as well as their academic performance based on the mean grade of the first and second quarters, and learning styles in terms of the following areas: visual, aural, verbal, physical, logical, social, and solitary whereby they were compared when grouped according to the profile variates of the student-respondents.

Moreover, the study was a correlation study in the sense that the dependent variables, the learning styles of the student-respondents, were associated with the

independent variables, the student-related personal characteristics; and the academic performance of the student-respondents based on the mean grade of the first and second quarters.

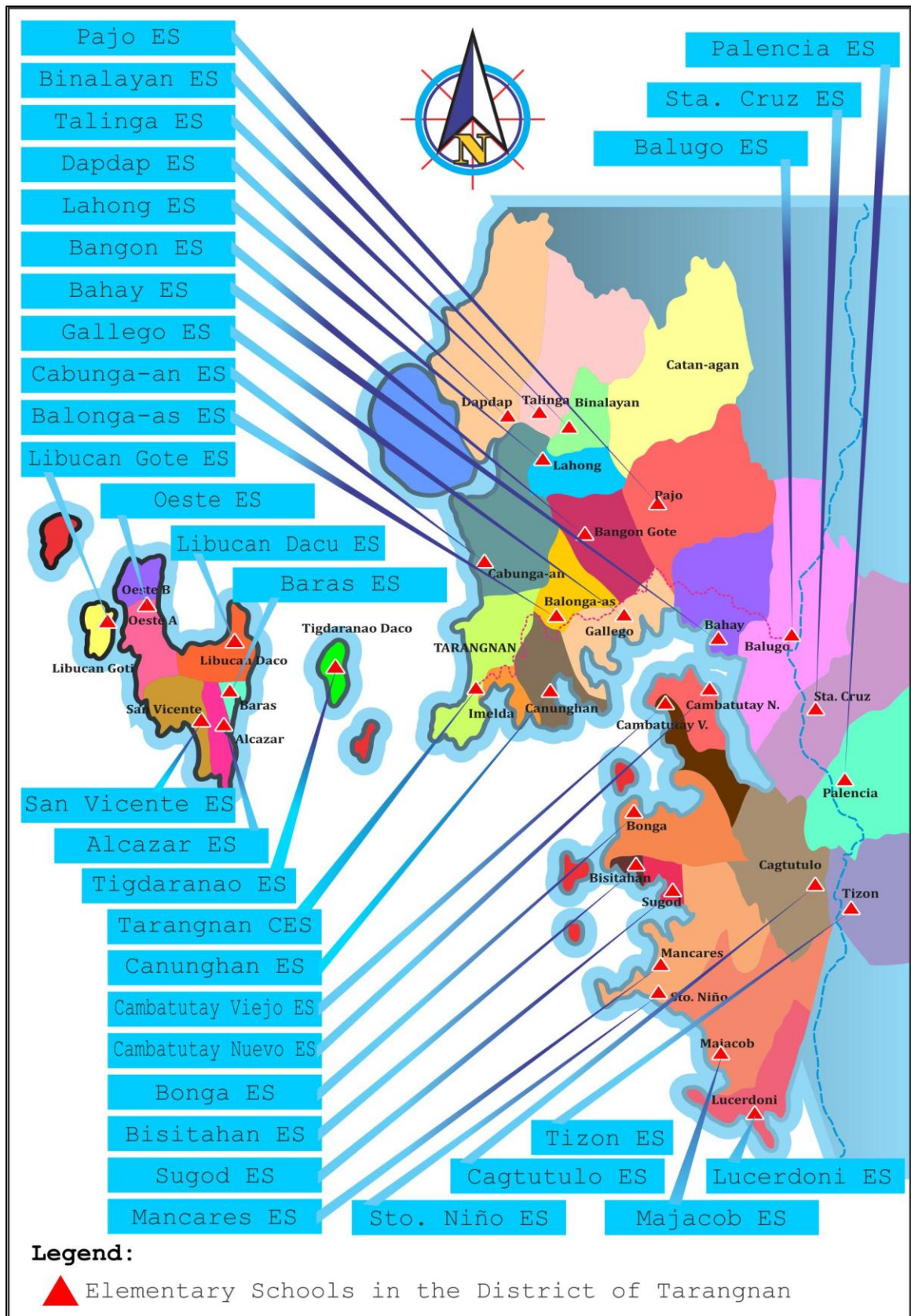
The data gathered were treated statistically using both the descriptive and inferential statistics, namely: Frequency Count, Percentage, Mean, Standard deviation, Weighted Mean, Analysis of Variance, Scheffe's Test, Pearson's Product-Moment of Correlation Coefficient, and the Fisher's t-Test.

### **Locale of the Study**

Figure 2 presents the map showing the locale of the study.

The study was conducted in the District of Tarangnan, Division of Samar covering the following complete elementary schools: Tarangnan Central Elementary School, Alcazar Elementary School, Bahay Elementary School, Balonga-as Elementary School, Balugo Elementary School, Bangon Elementary School, Baras Elementary School, Binalayan Elementary School, Bisitahan Elementary School, Bonga Elementary School, Cabunga-an Elementary School, Cagtutulo Elementary School, Cambatutay Nuevo Elementary School, Cambatutay Viejo Elementary School, Canunghan

Elementary School, Dapdap Elementary School, Gallego Elementary School, Lahong Elementary School, Libucan Dacu



E **Figure 2:** The Map Showing the Locale of the Study

Laccadon Elementary School, Majados Elementary School, Mancares Elementary School, Oeste Elementary School, Pajo Elementary School, Palencia Elementary School, San Vicente Elementary School, Sta. Cruz Elementary School, Sto. Niño Elementary School, Sugod Elementary School, Talinga Elementary School, Tigdaranao Elementary School, and Tizon Elementary School.

The district is situated in the northernmost part of the Division of Samar that belongs to the First Congressional District and marked as a fourth class municipality. Tarangnan had an ancient name "Tinagon" which means "a hiding place". This is because the place is so strategically located beside a small bay which is a haven for seafarers during tempestuous times or habagat.

It is composed of 41 barangays. Presently, the District of Tarangnan includes 33 elementary schools. These schools have a total of 36 Grade-6 teachers and 674 Grade-6 students.

### **Instrumentation**

This study utilized the researcher-made questionnaire as the main instrument in gathering the pertinent data which was supported by document analysis.

There were two sets of questionnaire used in data-gathering: one for the student-respondents, and the other one for the teacher-respondents.

Set 1 of the questionnaire was composed of four parts. Part I determined the profile of students such as age and sex, nutritional status, obtained grades in English, Science, Math, TLE and MAPEH, number of days of attendance in school for the first and second quarters, preferred seat in the classroom, preferred mode of participation in the class, parents' highest educational attainment, parents' occupation, and gross monthly family income. Part II described the students' attitude toward schooling. There were 19 attitude statements that were considered in this part whereby the respondents indicated their agreement or disagreement using the five-point Likert scale as follows: 5 for Strongly Agree (SA); 4 for Agree (A); 3 for Uncertain (U); 2 for Disagree (D); and 1 for Strongly Disagree (SD): Part III projected the students' study habits. This part was divided into four components such as: Time Management, Study Environment, Test Preparation, and Note Taking Skills. There were a total of 27 indicators in this part

whereby the respondents assessed each indicator using the scale as follows: 5 for Always (A); 4 for Frequently (F); 3 for Sometimes (S); 2 for Rarely (R); and 1 for Never (N). Lastly, Part IV appraised the learning style of student-respondents in terms of the following areas: visual; aural; verbal; physical; logical; social; and solitary. There were 70 indicators in this part whereby the respondents assessed each indicator using the scale as follows: 5 for Always Practiced (AP); 4 for Frequently Practiced (FP); 3 for Rarely Practiced (RP); 2 for Seldom Practiced (SP); and 1 for Not Practiced (NP).

Set 2 of the questionnaire is constituted of two parts. Part I verified the profile of the teacher in terms of age and sex, civil status, highest educational attainment, teaching position, gross monthly family income, number of years in teaching, latest performance rating based on the IPCRF, number of instructional materials used, types of instructional materials prepared for the first and second quarters and number of relevant in-service trainings; while Part II elicited the attitude toward teaching. There were 10 attitude statements that were considered in this part whereby the respondents signified their agreement or disagreement using the five-point Likert scale as follows: 5 for Strongly Agree (SA); 4 for Agree

(A); 3 for Uncertain (U); 2 for Disagree (D); and 1 for Strongly Disagree (SD).

The data for the academic performance based on the mean grade of the first and second quarters were generated through document analysis using the permanent record or the grade sheets for the aforementioned quarters.

### **Validation of Instrument**

Considering that the questionnaire was a researcher-made, it underwent expert validation in the area of its construct, face, and content.

First, the researcher drafted the questionnaire. The statement of the problem served as his guide for the parts and items in the questionnaire. The draft was submitted to his adviser for correction and improvement. After considering the suggestions of his adviser, the first revision of the questionnaire was made and passed on to the experts for suggestions to improve the questionnaire focusing on the aforesaid three areas of validity. The second revision was made after considering the suggestions of the experts and it was passed on to the members of the panel of oral examiners for final expert validation. Then the third and final revision was made for reliability testing.

In order to ascertain the reliability of the test, the researcher employed the Cronbach's Alpha Analysis, particularly on the attitude toward schooling, study habits, and the learning styles using the five point-scale. The researcher conducted the pilot test in San Jorge Central Elementary School, San Jorge, Samar involving 20 Grade-6 students and 10 Grade-6 teachers. The results were tabulated and the coefficient of reliability was computed using the following formula (Raagas, 2010:68):

$$C_{\alpha} = \left[ \frac{K}{K - 1} \right] \left[ 1 - \frac{\sum S_i^2}{S^2} \right]$$

where:  $C_{\alpha}$  refers to the reliability coefficient

using the Cronbach Alpha Analysis;

$K$  refers to the number of respondents;

$S_i^2$  refers to the standard deviation of the individual responses of each respondent; and,

$S^2$  refers to the standard deviation of the over-all responses of all the respondents.

In determining the reliability of the instrument, the Table of Reliability (Table 1) suggested by George and Mallery (2003:25) was used.



Corollarily, the coefficient turned 0.898 which was interpreted as "very good." This meant that the questionnaire possessed very good reliability and can be used as data-gathering instrument. Thus, the questionnaire was reproduced and made available for fielding.

**Table 1**

**Table of Reliability**

<b>Reliability Coefficient (<math>\alpha</math>)</b>	<b>Interpretation</b>
$\alpha \geq 0.90$	Excellent
$0.80 \leq \alpha < 0.89$	Very Good
$0.70 \leq \alpha < 0.79$	Good (There are probably a few items which could be improved.)
$0.60 \leq \alpha < 0.69$	Acceptable (There are probably some items which could be improved.)
$0.50 \leq \alpha < 0.59$	Poor (Suggests need for revision of the research instrument.)
$\alpha \leq 0.49$	Questionable/Unacceptable (This research instrument should not contribute heavily to the research, and it needs revision.)

### **Sampling Procedure**

The study utilized the stratified random sampling with equal probability proportion. The section of the students served as the variable for stratification.

In determining the sample size for this group of respondents, the Slovin's formula (Sevilla et al., 1992:182) was employed as follows:

$$n = N / 1 + Ne^2$$

where:     n refers to the number of student-respondents that were stratified in the District of Tarangnan;  
               N refers to the total number of students enrolled during the present school year;  
               e refers to the margin of error set at .05.  
               N refers to the total number of students enrolled during the present school year;  
               e refers to the margin of error set at .05.

Table 2 presents the number of respondents of the study by school and category.

### **Data Gathering Procedure**

As a research protocol, the researcher sought the permission of the Schools Division Superintendent of the Division of Samar to conduct the validation at the San Jorge Central Elementary School and to conduct the study in the District of Tarangnan.

The approved permit was used as reference in seeking similar permits from the district supervisor of the

Districts of San Jorge and Tarangnan, as well as the school heads for the validation and fielding of the questionnaire, respectively. After which, the questionnaire was administered to the respective respondents. Responses from the identified respondents were treated with strict confidentiality by the researcher. To ascertain the completeness and the quality of the data that were gathered, the researcher personally administered the questionnaire and employed probing for vague and confusing answers, as well as unanswered items.

**Table 2**

**Number of Respondents of the Study by School**

School	Teachers	Students	
		N	n
Tarangnan Central Elementary School	3	131	49
Alcazar Elementary School	1	15	6
Bahay Elementary School	1	16	6
Balonga-as Elementary School	1	13	5
Balugo Elementary School	1	15	6
Bangon Elementary School	1	2	1
Baras Elementary School	1	7	3
Binalayan Elementary School	1	9	3
Bisitahan Elementary School	1	7	3
Bonga Elementary School	1	23	8
Cabunga-an Elementary School	1	9	3
Cagtutulo Elementary School	1	10	4
Cambatutay Nuevo Elementary School	1	7	3
Cambatutay Viejo Elementary School	1	11	4
Canunghan Elementary School	1	10	4
Dapdap Elementary School	1	14	5
Gallego Elementary School	1	16	6
Lahong Elementary School	1	11	4
Libucan Dacu Elementary School	1	24	9
Libucan Gote Elementary School	1	11	4
Lucerdoni Elementary School	1	19	7

Majacob Elementary School	1	44	16
Mancares Elementary School	1	20	7
Oeste Elementary School	1	32	12
Pajo Elementary School	1	6	2
Palencia Elementary School	1	31	12
San Vicente Elementary School	1	24	9
Sta. Cruz Elementary School	1	17	6
Sto. Niño Elementary School	1	17	6
Sugod Elementary School	1	27	10
Talinga Elementary School	1	11	4
Tigdaranao Elementary School	2	54	20
Tizon Elementary School	1	11	4
<b>Total</b>	<b>36</b>	<b>674</b>	<b>251</b>
<b>Response Rate</b>		<b>100.00%</b>	

There were no difficulties encountered by the researcher during the distribution and retrieval of questionnaires for all of the respondents were very cooperative.

The data gathering was conducted right after the pre-oral defense on January 2018 and lasted for about a month. After which, data processing followed on February 2018.

### **Statistical Treatment of Data**

The data gathered through the use of the questionnaire were organized, tallied, tabulated, analyzed, and interpreted using appropriate statistical measures and procedures. Both descriptive and inferential statistical tools were utilized, namely: Frequency Count, Percentage, Mean, Standard Deviation, Weighted Mean, Analysis of

Variance, Scheffe's Test, Pearson's Product-Moment of Correlation Coefficient, and Fisher's t-Test.

**Frequency Count.** This tool was used to determine the respondents' profile in terms of their respective demographic characteristics in terms of occurrence per category as well as the academic performance and learning styles of the student-respondents.

**Percentage.** This measure was used to convert the magnitude of occurrence of each variable with respect to the total respondents using the following formula (Sevilla et al., 1992:200):

$$P = [f/N] \times 100$$

where: P refers to the percentage;

f refers to the number of occurrence; and

N refers to the total number of samples.

**Arithmetic Mean.** This was used to express the averages of some of the identified characteristics of the student-respondents, specifically on their age, gross monthly family income and students' academic performance during the first and second quarters. The following formula (Freud and Simon, 1992:35) was used:

$$\bar{X} = \frac{\sum fX}{N}$$

where:  $\bar{X}$  refers to the arithmetic mean or average;

f refers to the frequency of occurrence;  
 X refers to the identified variable; and,  
 n refers to the sample size.

**Standard Deviation.** This statistic was used to support the calculation of the arithmetic mean by calculating the deviation of the observation from calculated averages. The following formula (Freud and Simon, 1992:52) was used:

$$s = \sqrt{\frac{\sum f (X - \bar{X})^2}{n - 1}}$$

where: s refers to the standard deviation;  
 f refers to the frequency of  
 occurrence;  
 X refers to the identified variable;  
 and,  
 $\bar{X}$  refers to the arithmetic mean.

**Weighted Mean.** This statistic was employed to determine the collective perceptions of the student-respondents relative to their attitude toward schooling and learning styles in terms of the identified areas. The formula (Pagoso, 1997:111) that was used is as follows:

$$\bar{X}_w = \frac{\sum f_i X_i W_i}{n}$$

where:  $\bar{X}_w$  refers to the weighted mean;  
 $f_i$  refers to the frequency of a category

of variable;

$X_i$  refers to the identified category of  
a variable;

$W_i$  refers to the weights which are  
Expressed in a five-point Likert  
scales; and,

$n$  refers to the sample size.

In interpreting the weighted mean, the following sets  
of five-point Likert scales was used:

For the determination of the weighted average of the  
student-respondents' attitude toward schooling and the  
learning styles, the following ranges were applied:

<u>Range</u>	<u>Interpretation</u>
4.51-5.00	Strongly Agree (SA)
3.51-4.50	Agree (A)
2.51-3.50	Uncertain (U)
1.51-2.50	Disagree (D)
1.00-1.50	Strongly Disagree (SD); and

**Analysis of Variance (ANOVA)**. This tool was used to  
compare the learning styles of the student-respondents when  
grouped according to their profile variates. The formula  
used were as follows (Walpole, 1989:327):

$$F = \frac{MS_{\text{between}}}{MS_{\text{within}}}$$

where:  $F$  refers to the calculated variance;  
 $MS_{\text{between}}$  refers to the calculated mean  
square between groups; and  
 $MS_{\text{within}}$  refers to the calculated mean  
square within groups.

**Scheffe's Test.** This tool served as post ad hoc test to determine from which group comparing the mean difference was significant. In the event that the analysis of variance was proven significant, thus, rejecting the null hypothesis as the effect.

In deciding whether the null hypothesis would be accepted or rejected, the following decision rule served as guide: accept the null hypothesis if and when the computed value turned lesser than the critical or tabular value or the p-value turned greater than the  $\alpha$ ; on the other hand, reject the null hypothesis if and when the computed value turned equal or greater than the critical or tabular value or the p-value turned equal or lesser than the  $\alpha$ .

**Pearson's Product-Moment Correlation Coefficient.** This was used to determine the linear association between the study habits of student-respondents in terms of the identified areas and the following factors, namely: student-related variates, and the academic performance of



the student-respondents based on the mean grade during the first and second quarters. The formula (Walpole, 1997:375) used here is as follows:

$$r_{xy} = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

where:

$r_{xy}$  refers to the Pearson r value;

$\sum X$  refers to the sum of the X scores;

$\sum Y$  refers to the sum of the Y scores;

$\sum X^2$  refers to the sum of the squared X scores;

$\sum Y^2$  refers to the sum of the squared Y scores;

$\sum XY$  refers to the sum of the paired X and Y scores; and,

n refers to the number of paired scores.

**Table 3**

**Table of Linear Association**

Correlation Coefficient	Interpretation
0	No linear association
$0 < p < +0.2$	Very weak linear association
$+0.2 \leq p < +0.4$	Weak linear association
$+0.4 \leq p < +0.6$	Moderate linear association
$+0.6 \leq p < +0.8$	Strong linear association

$\frac{+0.8 \leq p < +1.0}{+1.0}$	Very strong linear association Perfect linear association
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Table 3 was employed to guide the researcher in interpreting the computed r-value (SRTC, 2013:98).

**Fisher's t-test.** This statistical tool was used to test the significance of the coefficient of linear association (Pearson r) between a set of paired variables. The formula (Best and Khan, 1998:402-403) applied in this case were as follows:

$$t_f = r_{xy} \sqrt{\frac{N - 2}{1 - r_{xy}^2}}$$

where:

$t_f$  refers to the Fisher's t-test value;

$r_{xy}$  refers to the value of the Pearson r;

$n-2$  refers to the degree of freedom; and

$n$  refers to the sample population.

In ascertaining whether the null hypothesis was accepted or rejected, the researcher was guided by the afore-mentioned decision rule.

Finally, hypotheses testing was done using  $\alpha = .05$  in a two-tailed test with the aid of available statistical software packages.

## Chapter 4

### PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the findings of this study with the corresponding analysis and interpretation of data.

#### **Profile of Student-Respondents**

This section contains the profile of student-respondents in terms of the following variates: age and sex; nutritional status; obtained grades in English, Science, Mathematics, TLE, and MAPEH along: written work; performance task; and quarterly examinations; number of days of attendance in school for the first and second quarters; preferred seats in the classroom; preferred mode of participation in the class; parents' highest educational attainment; parents' occupation; gross monthly family income; attitude toward schooling; and study habits.

**Age.** Table 4 presents the age distribution of the student-respondents.

The table presents that oldest student-respondent was aged at 17 years old and the youngest was aged at 10 years old. A number of them, that is, 116 or 46.21 percent were aged 11 years old while 92 or 36.65 percent were aged 10

years old, 32 or 12.75 percent were aged 12 years old, and the rest were slimly distributed to the other identified

**Table 4**

**Age and Sex of Student-Respondents**

<b>Age Bracket (in years)</b>	<b>Sex</b>		<b>Total (f)</b>	<b>%</b>
	<b>Male</b>	<b>Female</b>		
17	1	0	1	0.40
14	0	2	2	0.80
13	1	6	7	2.79
12	14	18	32	12.75
11	39	77	116	46.21
10	39	53	92	36.65
Not Stated	0	1	1	0.40
<b>Total</b>	<b>94</b>	<b>157</b>	<b>251</b>	<b>100.00</b>
<b>%</b>	<b>29.08</b>	<b>70.92</b>	<b>100.00</b>	
<b>Mean</b>	<b>10.86 years old</b>			
<b>S. D.</b>	<b>0.90 year</b>			

age brackets, but one of them or 0.40 percent did not disclose his/her age.

The mean age of the student-respondents was calculated at 10.86 years old with a SD of 0.90 year. This data signified that the student-respondents were in the right age appropriate to the grade level they were enrolled in. Furthermore, they were at more or less of the same age being shown by their age difference.

**Sex.** Table 4 also shows the sex distribution of the student-respondents whereby majority of them composed the female sex accounting for 157 or 70.92 percent. The male counterpart was composed of 94 or 29.08 percent only.

The data manifested that the female student-respondents outnumbered male ones. But this did not mean that only the female were interested in schooling. Perhaps during the time of visit they were the ones available.

**Nutritional Status.** Table 5 provides the nutritional status of the student-respondents.

The table shows that majority of the student-respondents were in normal nutritional status accounting for 231 or 92.03 percent while 18 or 7.17 percent were wasted, and only two or 0.80 percent were obese.

Generally, the student-respondents were in good nutritional condition indicating that they are apt to learn being healthy.

**Obtained Grades.** This section presents the obtained grades in English, Science, Mathematics, TLE, and

**Table 5**

**Nutritional Status of Student-Respondents**

Nutritional Status	f	%
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Normal	231	92.03
Wasted	18	7.17
Obese	2	0.80
<b>Total</b>	<b>251</b>	<b>100.00</b>

MAPEH along: written work; performance task; and quarterly examinations.

**English.** Table 6 shows the obtained grades in English along: written work; performance task; and quarterly examinations.

From the table, it can be noted that the student-respondents showed obtained grades in English for the first quarter as follows: written work, 80.46; performance task, 81.40; and quarterly examination, 80.82. The overall average of the obtained grades in English for the first quarter was posted at 80.89 with SD of 3.70.

During the second quarter, the obtained grades in English were as follows: written work, 81.78; performance task, 82.54; and quarterly examination, 83.12. The over-all average of the obtained grades in English for the second

**Table 6**

**Obtained Grades in English of Student-Respondents**

Activity	First	Second	Average
----------	-------	--------	---------

	Quarter		Quarter			
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Written Work	80.46	4.10	81.78	2.99	81.12	3.54
Performance Task	81.40	2.78	82.54	1.95	81.97	2.36
Quarterly Examination	80.82	4.21	83.12	1.85	81.97	3.03
<b>Overall Average</b>	<b>80.89</b>	<b>3.70</b>	<b>82.48</b>	<b>2.26</b>	<b>81.67</b>	<b>2.98</b>

quarter was posted at 82.48 with SD of 2.26. The overall average of the obtained grades in English for the first and second quarters was 81.67 with a SD of 2.98.

**Science.** Table 7 shows the obtained grades in Science along: written work; performance task; and quarterly examinations.

From the table, it can be noted that the student-respondents showed obtained grades in Science for the first quarter as follows: written work, 81.27; performance task, 81.03; and quarterly examination, 81.72. The overall average of the obtained grades in Science for the first quarter was posted at 81.34 with SD of 1.98.

During the second quarter, the obtained grades in Science were as follows: written work, 81.99; performance task, 81.81; and quarterly examination, 82.04. The overall

**Table 7**

**Obtained Grades in Science of Student-Respondents**

Activity	First	Second	Average
----------	-------	--------	---------

	Quarter		Quarter			
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Written Work	81.27	1.78	81.99	1.52	81.63	1.65
Performance Task	81.03	2.81	81.81	2.16	81.42	2.48
Quarterly Examination	81.72	1.34	82.04	1.69	81.88	1.52
<b>Overall Average</b>	<b>81.34</b>	<b>1.98</b>	<b>81.95</b>	<b>1.79</b>	<b>81.64</b>	<b>1.88</b>

average of the obtained grades in Science for the second quarter was posted at 81.95 with SD of 1.79. The overall average of the obtained grades in Science for the first and second quarters was 81.64 with a SD of 1.88.

**Mathematics.** Table 8 shows the obtained grades in Mathematics along: written work, performance task, and quarterly examinations.

From the table, it can be noted that the student-respondents showed obtained grades in Mathematics for the first quarter as follows: written work, 82.32; performance task, 81.81; and quarterly examination, 82.85. The overall average of the obtained grades in Mathematics for the first quarter was posted at 82.33 with SD of 2.25.

During the second quarter, the obtained grades in Mathematics were as follows: written work, 81.88; perform-

**Table 8**

**Obtained Grades in Mathematics of Student-Respondents**

Activity	First	Second	Average
----------	-------	--------	---------



	Quarter		Quarter			
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Written Work	82.32	1.92	81.88	3.31	82.10	2.62
Performance Task	81.81	3.02	82.83	1.80	82.32	2.41
Quarterly Examination	82.85	1.80	83.75	2.14	83.30	1.97
<b>Overall Average</b>	<b>82.33</b>	<b>2.25</b>	<b>82.82</b>	<b>2.42</b>	<b>82.57</b>	<b>2.33</b>

ance task, 82.83; and quarterly examination, 83.75.

The overall average of the obtained grades in Mathematics for the first and second quarters was 82.57 with a SD of 2.33.

**TLE**. Table 9 shows the obtained grades in TLE along: written work; performance task; and quarterly examinations.

From the table, it can be noted that the student-respondents showed obtained grades in TLE for the first quarter as follows: written work, 81.22; performance task, 82.14; and quarterly examination, 82.72. The overall average of the obtained grades in TLE for the first quarter was posted at 82.03 with SD of 2.59.

During the second quarter, the obtained grades in TLE were as follows: written work, 83.02; performance task, 82.78; and quarterly examination, 83.47. The overall

**Table 9**

**Obtained Grades in TLE of Student-Respondents**

Activity	First Quarter		Second Quarter		Average	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Written Work	81.22	4.30	83.02	1.30	82.12	2.80
Performance Task	82.14	2.06	82.78	1.81	82.46	1.94
Quarterly Examination	82.72	1.42	83.47	1.31	83.10	1.36
<b>Overall Average</b>	<b>82.03</b>	<b>2.59</b>	<b>83.09</b>	<b>1.47</b>	<b>82.56</b>	<b>2.03</b>

average of the obtained grades in TLE for the second quarter was posted at 83.09 with SD of 1.47.

The overall average of the obtained grades in TLE for the first and second quarters was 82.56 with a SD of 2.03.

**MAPEH**. Table 10 shows the obtained grades in MAPEH along: written work; performance task; and quarterly examinations.

From the table, it can be noted that the student-respondents showed obtained grades in MAPEH for the first quarter as follows: written work, 81.69; performance task, 82.67; and quarterly examination, 82.78. The overall average of the obtained grades in MAPEH for the first quarter was posted at 82.38 with SD of 1.72.

During the second quarter, the obtained grades in MAPEH were as follows: written work, 81.98; performance

**Table 10**

**Obtained Grades in MAPEH of Student-  
Respondents**

Activity	First Quarter		Second Quarter		Average	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Written Work	81.69	2.03	81.98	1.77	81.84	1.90
Performance Task	82.67	1.49	82.20	1.76	82.44	1.62
Quarterly Examination	82.78	1.63	82.77	1.40	82.78	1.68
<b>Overall Average</b>	<b>82.38</b>	<b>1.72</b>	<b>82.32</b>	<b>1.64</b>	<b>82.35</b>	<b>1.68</b>

task, 82.20; and quarterly examination, 82.77. The overall average of the obtained grades in MAPEH for the second quarter was posted at 82.32 with SD of 1.64.

The over-all average of the obtained grades in MAPEH for the first and second quarters was 82.35 with a SD of 1.68.

The foregoing data indicated that the student-respondents manifested favorable performance based on obtained grades in English, Science, Mathematics, TLE, and MAPEH along: written work; performance task; and quarterly examinations. From the standard difference it can be understood that their performances were close to each other meaning the manifested similar performances in English, Science, Mathematics, TLE, and MAPEH along: written work; performance task; and quarterly examinations.

**Number of Days of Attendance in School for the First and Second Quarters.** Table 11 provides the number of days of attendance in school for the first and second quarters of the student-respondents.

The table shows that the mean number of days of attendance in school for the first and second quarters student-respondents was: first quarter, 50.13 days with a SD of 1.98 days; and during the second quarter, 46.41 days with a SD of 7.96 days.

**Table 11**

**Number of Days in Attendance in School of Student-Respondents**

<b>Quarter</b>	<b>Mean</b>	<b>S.D.</b>
First Quarter	50.13	1.98
Second Quarter	46.41	7.96
<b>Average</b>	<b>48.27</b>	<b>4.97</b>

The average number of days of attendance in school for the first and second quarters of the student-respondents was posted at 48.27 days with a SD of 4.97 days. This suggested that the student-respondents manifested regularity in attendance in school except during the second semester as manifested by the standard difference.

**Preferred Seat in the Classroom.** Table 12 presents the preferred seat in the classroom by the student-respondents.

It can be gleaned from the table that a number of the student-respondents, that is, 91 or 36.25 percent preferred their seat near the chalkboard while 58 or 23.11 percent preferred seat in the middle of the array of seats, 32 or 12.75 percent preferred seat near the door, 27 or 10.76 percent preferred seat far from the chalkboard, and the rest of them were distributed to the other identified preferred seat.

**Table 12**

**Preferred Seat in the Classroom by  
Student-Respondents**

<b>Seat</b>	<b>f</b>	<b>%</b>
Near the chalkboard	91	36.25
Middle of the array of seats	58	23.11
Far from the chalkboard	27	10.76
Left side of the array of seats	11	4.38
Right side of the array of seats	21	8.37
Near the door	32	12.75
Near the windows	11	4.38
<b>Total</b>	<b>251</b>	<b>100.00</b>

Generally, the student-respondents preferred their seat near the chalkboard which showed interest among them. Some probably were near-sighted and others preferred it so that they will not miss the lecture and learn more.

**Preferred Mode of Participation in Class.** Table 13 presents the preferred mode of participation in class by the student-respondents.

It can be gleaned from the table that a number of the student-respondents, that is, 76 or 30.28 percent preferred group activity as their mode of participation while 68 of them or 27.09 percent preferred individual activity, 59 or 23.51 percent preferred written activity, and 48 or 19.12 percent preferred both group and individual activity.

**Table 13**

**Preferred Mode of Participation in Class by  
Student-Respondents**

<b>Mode of Participation</b>	<b>f</b>	<b>%</b>
Group Activity	76	30.28
Individual Activity	68	27.09
Both Group and Individual Activity	48	19.12
Written	59	23.51
<b>Total</b>	<b>251</b>	<b>100.00</b>

The data denoted that the student-respondent variedly prefer mode of participation from group to individual and

written activities which they considered effective for them to learn.

**Parents' Highest Educational Attainment.** Table 14 reveals the parents' highest educational attainment of the student-respondents.

Among the fathers of the student-respondents, Table 14 shows that a number of them, that is, 120 or 47.81 percent were elementary graduates while 46 of them or 18.33 percent reached the elementary level, 29 or 11.55 percent reached the college level, another 29 or 11.55 percent were high school graduates, and the rest were distributed to the other identified educational levels.

Likewise, Table 14 also shows that among the mothers of the student-respondents, 100 or 39.84 were elementary

**Table 14**

**Parents' Highest Educational Attainment  
of Student-Respondents**

Educational Level	Father		Mother	
	f	%	f	%
College Graduate	16	6.38	29	11.55
College Level	29	11.55	8	3.19
High School Graduate	29	11.55	8	3.19
High School Level	11	4.38	41	16.33
Elementary Graduate	120	47.81	100	39.84
Elementary Level	46	18.33	65	25.90
<b>Total</b>	<b>251</b>	<b>100.00</b>	<b>251</b>	<b>100.00</b>

graduates while 65 or 25.90 reached the elementary level only, 41 or 16.33 reached the high school level, 29 or 11.55 were college graduates, and the rest were distributed to the other identified educational level.

The above-mentioned data suggested the parents of the student-respondents were schooled indicating that they were functional literates which signified that they, too, aspired that their students would finish also schooling.

**Parents' Occupation.** Table 15 discloses the parents' occupation of the student-respondents.

It can be noted from Table 15 that a number of the fathers of the student-respondents, that is, 106 or 42.23 percent were fishermen while 50 or 19.32 percent were farmers, 49 or 19.52 percent were carpenters, 30 or 11.95 percent were drivers, and the rest were distributed to the

**Table 15**

**Parents' Occupation of Student-Respondents**

Occupation	Father		Mother	
	f	%	f	%
Carpenter	49	19.52	0	0.00
Driver	30	11.95	0	0.00
Farmer	50	19.92	0	0.00
Fisherman	106	42.23	0	0.00
Machine Operator	6	2.39	22	8.76
Self-Employed	8	3.19	0	0.00
Laborer	2	0.80	25	9.96
Teacher	0	0.00	28	11.16
Housekeeper	0	0.00	176	70.12



<b>Total</b>	<b>251</b>	<b>100.00</b>	<b>251</b>	<b>100.00</b>
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other identified occupations. On the other hand, among their mothers, majority of them were not gainfully employed being the housekeepers accounting for 176 or 70.12 percent. Furthermore, only few of the mothers were engaged in gainful activities which were distributed to the identified occupations.

The data signified that the parents of the student-respondents had gainful activities which served as the source of their living. Though the mothers were not engaged in gainful activities but being housekeepers, they serve a support system of the family by taking care of them, which cannot be quantified by a salary.

**Gross Monthly Family Income.** Table 16 presents the gross monthly family income of the student-respondents.

**Table 16**

**Gross Monthly Family Income of  
Student-Respondents**

<b>Income Bracket</b>	<b>F</b>	<b>%</b>
20,000-29,999	7	2.79
10,000-19,999	60	23.90
Less than 10,000	184	73.31
<b>Total</b>	<b>251</b>	<b>100.00</b>

<b>Mean</b>	<b>PhP4,282.74</b>
<b>S. D.</b>	<b>PhP7,285.64</b>

The mean monthly family income of the student-respondents was registered at PhP4,282.74 with a SD of PhP7,285.64. This signified that the family of the student-respondent still earned an income lower than the threshold which they used to defray their monthly obligations. However, there was a wide disparity in the income earned across families which manifested that rich families become richer and the poor families become poorer

**Attitude Toward Schooling.** Table 17 appraises the attitude of the student-respondents. There were 19 indicators considered whereby they signified agreement of disagreement on each indicator.

Table 17 reveals that the student-respondents "strongly agreed" five indicators with a weighted means ranging from 4.67 to 4.86. The indicator with the statement

**Table 17**

**Attitude Toward Schooling of Student-Respondents**

<b>Attitude Statement</b>	<b>WM</b>	<b>I</b>
1. Most of my teachers seem to care about me as a person.	4.40	A

2. My teachers demand too much work from me.	2.74	U
3. Getting a good education is important to me.	4.67	SA
4. The main purpose of education is to help me find a good job.	4.86	SA
5. I work harder in school than do most students.	3.89	A
6. I do only enough work in school to get by.	3.03	U
7. School has encouraged me to think for myself.	4.68	SA
8. I look forward of going to most of my classes.	3.74	A
9. I should spend more time studying.	4.27	A
10. If my teachers demanded more, I would probably work harder.	3.87	A
11. I feel that I could discuss personal problems with most of my teachers.	3.60	A
12. I am reluctant to participate in most class discussions.	2.69	U
13. I sometimes ask answer from my seatmates during tests.	2.15	D
14. My teachers seem to enjoy teaching.	4.72	SA
15. I would consider teaching as a career.	4.35	A
16. I am more concerned with getting good grades than with how much I learn.	1.80	D
17. I try to please my teachers.	3.70	A
18. My school is a safe place.	4.73	SA
19. School encourages me to be creative.	3.97	A
<b>Grand Weighted Mean</b>		<b>3.78</b>
<b>Interpretation</b>		<b>A</b>

**Legend:**    4.51-5.00    Strongly Agree    (SA)  
                  3.51-4.50    Agree                (A)  
                  2.51-3.50    Uncertain            (U)

**Table 17 continued**

                 1.51-2.50    Disagree                (D)  
                  1.00-1.50    Strongly Disagree    (SD)  
                                 Weighted Mean        (WM)  
                                 Interpretation        (I)

stating, "the main purpose of education is to help me find a good job" obtained the highest mean. Nine indicators were agreed by this group of respondents with weighted means ranging from 3.60 to 4.40. In these indicators, the indicator stating, "most of my teachers seem to care about me as a person" obtained the highest weighted mean.

Furthermore, this group of respondents were "uncertain" along two indicators with statements stating: "I do only enough work in school to get by" and "My teachers demand too much work from me," with weighted means of 3.03 and 2.74, respectively. The remaining two indicators were "disagreed" by the student-respondents which corresponded to the statements stating: "I sometimes ask answer from my seatmates during tests;" and "I am more concerned with getting good grades than with how much I learn," with weighted means of 2.15 and 1.80, respectively.

Taken as a whole, the student-respondents "agreed" on their attitude toward schooling being indicated by the grand weighted mean of 3.78. This signified that the students-manifested favorable attitude toward schooling.

**Study Habits.** Table 18 appraises the study habits of the student-respondents. There were 34 indicators considered in this section grouped into time management, study environment, test preparation, and note-taking skills

which they appraised the regularity of their practice in each indicator.

From the table, it can be noted that this group of respondents appraised two indicators as "always" practiced by them which corresponded to the statements stating: "I regularly attend my classes;" and "I have an area where I always go to study," with weighted means of 4.88 and 4.78, respectively. Thirteen indicators were considered "frequently" practiced by them with weighted means ranging from 3.58 to 4.48. In these indicators, the statements stating: "I attend extra help sessions or class hours provided by the teacher;" and "in addition to highlighting, I make notes as I read class materials," obtained the highest and the least weighted means, respectively.

Eleven indicators were appraised by this group of respondents as "sometimes" practiced by them with weighted means ranging from 2.55 to 3.48. And the remaining indicator stating, "I prefer to study at the same time watching TV," was considered "rarely" practiced by them with a weighted mean of 1.84.

**Table 18**

**Study Habits of Student-  
Respondents**

Study Habits	WM	I
<b>A. Time Management</b>		
1. I make a master schedule for every grading period.	4.40	F
2. I update my master schedule weekly/daily.	3.59	F
3. I stick to my master schedule.	3.17	S
4. I allow time for exercise and socializing with friends.	2.50	R
5. I get at least 6 hours of sleep each night.	3.45	S
6. I study at least 2 hours for every subject.	3.29	S
7. I get my assignments done on time.	3.95	F
8. I regularly attend my classes.	4.88	A
<b>B. Study Environment</b>		
1. I have an area where I always go to study.	4.78	A
2. My study area is free from noise and distractions.	4.18	F
3. I have all my supplies near me when I study.	3.13	S
4. My area is comfortable.	3.73	F
5. I let my friend leave me alone when I want to study.	3.61	F
6. I prefer to study at the same time watching TV.	1.84	R
7. I prefer to study in the environment with music.	2.58	S
<b>C. Test Preparation</b>		
1. I study for each class every day.	3.16	S
2. I start reviewing for major exams at under time management.	2.55	S
3. I join a study group.	3.03	S
4. I attend extra help sessions or class hours provided by the teacher.	4.48	F
5. I engage in drill and practice particularly on the possible type of tests (essay, multiple choice, etc.).	3.86	F

Table 18 continued

Study Habits	WM	I
6. I do read my lecture notes when I study.	4.14	F
7. I prepare my books, lecture notes, and other materials that I can use during my review/study.	4.35	F
D. Note Taking Skills		
1. I take notes in class, keep up with the teacher, and understand the concepts at the same time.	3.84	F
2. I devise an efficient system of note taking.	3.25	S
3. I do library work before I study.	3.43	S
4. I can determine "important stuff" to take note and the cues to consider it as an important stuff.	3.43	S
5. In addition to highlighting, I make notes as I read class materials.	3.58	F
6. I put class notes or notes from texts into my own words.	3.63	F
Grand Weighted Mean	3.56	
Interpretation	F	
Legend:		
4.51-5.00	Always	(A)
3.51-4.50	Frequently	(F)
2.51-3.50	Sometimes	(S)
1.51-2.50	Rarely	(R)
1.00-1.50	Never	(N)
	Weighted Mean	(WM)
	Interpretation	(I)

Taken as a whole the student-respondents appraised themselves as "frequently" practicing the identified study habits being shown by the grand weighted mean of 3.56. This indicated that they were interested to learn their lessons in school.

### **Profile of Teacher-Respondents**

This section presents the profile of teacher-respondents in terms of age and sex; civil status; highest educational attainment; teaching position; gross monthly family income; number of years in teaching; latest performance rating based on the IPCRF; number of instructional materials used for the first and second quarters; types of instructional materials prepared; number of relevant in-service trainings; and attitude toward teaching.

**Age.** Table 19 shows the age disaggregation of the teacher-respondents.

As shown in the said table, the oldest respondent was registered between 61-65 years old while the youngest was between 21-25 years old whereby a number of them, that is, nine or 25.00 percent were aged 26-30 years old. Seven or 19.44 percent were aged 36-40 years old while six of them or 16.66 percent were aged between 41-45 years old and another six or 16.66 percent were aged 21-25 years old. The rest of them were distributed to the other identified age brackets.

The mean age of this group of respondents was registered at 36.08 years old with standard deviation of 10.58 years. This meant the teacher-respondents were at



their late 30's which indicated that they are relatively young, at the prime of their age and at the height of their teaching career. The gap in their ages was standardized at 10.52 years which was obvious based on their age distribution.

**Sex.** Likewise, Table 19 presents the sex disaggregation of the teacher-respondents which showed that majority of them belonged to the female sex accounting for 29 or 80.56 percent. The male counterpart was composed of seven or 19.44 percent only.

**Table 19**

**Age and Sex of Teacher-Respondents**

<b>Age Bracket (in years)</b>	<b>Sex</b>		<b>Total (f)</b>	<b>%</b>
	<b>Male</b>	<b>Female</b>		
61-65	0	1	1	2.78
56-60	0	1	1	2.78
51-55	0	2	2	5.56
46-50	1	1	2	5.56
41-45	1	5	6	16.66
36-40	1	6	7	19.44
31-35	1	1	2	5.56
26-30	2	7	9	25.00
21-25	1	5	6	16.66
<b>Total</b>	<b>7</b>	<b>29</b>	<b>36</b>	<b>100.00</b>
<b>%</b>	<b>19.44</b>	<b>80.56</b>	<b>100.00</b>	
<b>Mean</b>	<b>36.08 years old</b>			
<b>S. D.</b>	<b>10.58 years</b>			

The data signified that majority of the teaching force in the research environment were female indicating that most of this group embraced the career of a teacher so that from then and now, it was dubbed as "woman's profession."

**Civil Status**. Table 20 shows the civil status of the teacher-respondents.

As shown in the table, majority of them, that is, 21 or 58.33 percent were married while 10 or 27.78 percent were single, and five or 13.89 percent disclosed that they were separated.

The data presented indicated that the teacher-respondents were disaggregated among the three registered civil statuses but the bottom-line is they had the passion as agents of change among the students.

**Table 20**

**Civil Status of Teacher-Respondents**

<b>Civil Status</b>	<b>f</b>	<b>%</b>
Single	10	27.78
Married	21	58.33
Separated	5	13.89
<b>Total</b>	<b>36</b>	<b>100.00</b>

**Highest Educational Attainment.** Table 21 depicts the highest educational attainment of the teacher-respondents.

**Table 21**

**Highest Educational Attainment of Teacher-Respondents**

<b>Educational Level</b>	<b>f</b>	<b>%</b>
With Doctoral Units	5	13.89
Master's Degree Holder	12	33.33
With Masteral Units	8	22.22
Baccalaureate Degree Holder	11	30.56
<b>Total</b>	<b>36</b>	<b>100.00</b>

As gleaned from Table 21, a number of them, that is, 12 or 33.33 percent were master's degree holders while 11 or 30.56 percent were baccalaureate degree holders, eight or 22.22 were with master's units and five or 13.89 percent were with doctoral units.

The data presented signified that the teacher-respondents qualified themselves for the teaching profession in terms of educational requirements, in fact, some of them did not settle as baccalaureate degree holders but they pursued advance education and earned master's degree and pursued further in earning doctoral units. This indicated that they value their career by considering the enhancement of their craft.

**Teaching Position.** Table 22 reveals the teaching position of the teacher-respondents.

As presented in the table, a number of the teacher-respondents, that is, 17 or 47.22 percent were appointed as Teacher III while eight of them or 22.22 percent were appointed to the position of Teacher II, seven or 19.45 percent were appointed as Teacher I, and the remaining four or 11.11 percent as Master Teacher.

The data revealed that the teacher-respondents were disaggregated to the different hierarchical positions in the DepEd's organizational structure as approved by the Department of Budget and Management by virtue of the regular charter or due to rationalization. Furthermore, these data proved that some of the teacher-respondents had been promoted already which could be attributed to their pursuit for advance education which qualified them for the position based on the DepEd's qualification standards.

**Table 22**

**Teaching Position of Teacher-  
Respondents**

<b>Teaching Position</b>	<b>f</b>	<b>%</b>
Master Teacher	4	11.11
Teacher III	17	47.22
Teacher II	8	22.22
Teacher I	7	19.45

<b>Total</b>	<b>36</b>	<b>100.00</b>
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**Gross Monthly Family Income.** Table 23 shows the distribution of the teacher-respondents in terms of gross monthly family income.

The table shows that majority of the teacher-respondents earned gross monthly family income of PhP30,000-PhP49,999 accounting for 19 or 52.78 percent while 10 of them or 27.78 percent earned PhP10,000-PhP29,999 and the rest of them were slimly distributed to the other identified income brackets.

The mean family income of the teacher-respondents was

**Table 23**

**Gross Monthly Family Income of Teacher-Respondents**

<b>Income Bracket</b>	<b>f</b>	<b>%</b>
PhP100,000 and over	1	2.78
PhP70,000-PhP99,999	3	8.33
PhP50,000-PhP69,999	3	8.33
PhP30,000-PhP49,999	19	52.78
PhP10,000-PhP29,999	10	27.78
<b>Total</b>	<b>36</b>	<b>100.00</b>
<b>Mean</b>	<b>PhP51,110.61</b>	
<b>S. D.</b>	<b>PhP19,679.98</b>	

posted at PhP51,110.51 with a standard deviation of PhP19,679.98. This manifested that the teacher-respondents earned higher income already far above the threshold however a wider disparity in income could be still be observed being indicated by the standard difference.

**Number of Years in Teaching.** Table 24 shows the number of years in teaching accumulated by the teacher-respondents.

Table 24 reveals that the longest number of years in teaching of the teacher-respondents was registered between 16-20 years while the shortest was registered between 1-5 years, which eventually composed the most numbered of teacher-respondents accounting for 15 or 41.67 percent Eleven or 30.56 percent had served the DepEd for 6-10 years already while seven or 19.44 percent for 11-15 years and the remaining three for 16-20 years.

**Table 24**

**Number of Years in Teaching of Teacher-Respondents**

<b>Years in Teaching</b>	<b>f</b>	<b>%</b>
16-20	3	8.33
11-15	7	19.44
6-10	11	30.56
1-5	15	41.67

<b>Total</b>	<b>36</b>	<b>100.00</b>
<b>Mean</b>	<b>7.72 years</b>	
<b>S. D.</b>	<b>4.92 years</b>	

The mean number of years in teaching by the teacher-respondents was posted at 7.72 years with a standard deviation of 4.92 years. The data signified that the teacher-respondents had been in teaching profession for quite a longer period of time which suggested that they were able to hone their teaching skills and competences.

**Latest Performance Rating Based on the IPCRF.** Table 25 discloses the latest performance rating of the teacher-respondents based on the IPCRF.

The table shows that majority of the teacher-respondents garnered a performance rating with adjectival rating of "very satisfactory" accounting for 34 or 94.44 percent while the remaining two or 5.56 percent obtained a rating of "outstanding."

**Table 25**

**Latest Performance Rating of Teacher-  
Respondents Based on the IPCRF**

<b>Performance Rating</b>	<b>F</b>	<b>%</b>
Outstanding	2	5.56

Very Satisfactory	34	94.44
Satisfactory	0	0.00
Unsatisfactory	0	0.00
Poor	0	0.00
<b>Total</b>	<b>36</b>	<b>100.00</b>

The data indicated that the teacher-respondents discharged very satisfactorily their sworn in duties and responsibilities despite the several preparations they have under taken that consumed even their rest time.

**Number of Instructional Materials Used.** Table 26 provides information regarding the number of instructional materials (IMs) used by the teacher-respondents during the first and second quarters.

From the table, it can be gleaned that the mean number of IMs used by the teacher-respondents were as follows: first quarter, 15 IMs with a SD of 1.25 IMs; and second quarter, 22 IMs with a SD of 1.10 IMs.

The overall mean number of IMs used by the teacher-respondents for the first and second quarters was registered at 19 IMs with a standard deviation of 1.18 IMs.

**Table 26**

**Number of Instructional Materials Used by the  
Teacher-Respondents**



Quarter	Mean	S. D.
First Quarter	15	1.25
Second Quarter	22	1.10
Overall Mean	19 IMs	
S. D.	1.18 IMs	

The foregoing data signified that the teacher-respondents utilized several IMs which they used as aids in teaching to be effective with their class instruction during the first and second quarters indicating that using such was really a necessity more so that contextualization was being implemented by the DepEd.

**Type of IMs Prepared.** Table 27 shows the type of instructional materials prepared by the teacher-respondents during the first and second quarters.

The table shows that during the first quarter period, a number of the teacher-respondents, that is, 12 or 33.33 percent prepared real objects while 10 or 27.78 percent prepared charts, six or 16.67 percent prepared pictures, four or 11.11 percent, framed pictures, and the rest were distributed to the other identified IMs prepared by this

**Table 27**

**Type of Instructional Materials Prepared  
by the Teacher-Respondents**

Type of IM	First Quarter		Second Quarter	
	f	%	f	%
Multi-Media	1	2.78	1	2.78
Video Clips	3	8.33	2	5.56
Real Objects	12	33.33	15	41.67
Charts	10	27.78	10	27.78
Pictures	6	16.67	5	13.88
Framed Pictures	4	11.11	3	8.33
<b>Total</b>	<b>36</b>	<b>100.00</b>	<b>36</b>	<b>100.00</b>

group of respondents.

Likewise, the foregoing table also shows that during the second quarter period, a number of the teacher-respondents, that is, 15 or 41.67 percent prepared real objects while 10 or 27.78 percent prepared charts, five or 13.88 percent prepared pictures, and the rest were distributed to the other identified IMs prepared by this group of respondents.

The above-mentioned information manifested that the teacher-respondents exerted efforts to be effective in teaching so that they made it sure that they prepared varied IMs which they could use every time they present a lesson to their students. In the guise of contextualization, the most common IMs they prepared and use were real objects.

**Number of Relevant In-Service Trainings.** Table 28 discloses the number of relevant in-service trainings of teacher-respondents.

The table discloses that the training levels availed of by the teacher-respondents was in the national, regional, division, and district levels only. From the table, it can be gleaned that the mean number of relevant in-service trainings (INSET) in the different levels was as follows: national, one training with a SD of 0.69; regional, 15 trainings with a SD of 6.56 trainings;

**Table 28**

**Number of Relevant In-Service Trainings of  
Teacher-Respondents**

<b>Training Level</b>	<b>Mean</b>	<b>S. D.</b>
National	1	0.69
Regional	15	6.56
Division	19	9.25
District	32	8.15
<b>Overall Mean</b>	<b>8 trainings</b>	
<b>S. D.</b>	<b>3.63 trainings</b>	

division, 19 trainings with SD of 9.25 trainings; and district, 32 trainings with SD of 8.15 trainings. The grand mean number of INSET of the teacher-respondents was posted at eight trainings with a SD of 3.63 trainings.

The foregoing data suggested that the teacher-respondents recognized the value of updating themselves with the curricula redirection so that they took opportunities in attending trainings in the different levels when they were warranted to attend one.

**Attitude Toward Teaching.** Table 29 appraises the attitude of the teacher-respondents toward teaching. There were 10 indicators considered to determine the attitude of the teacher-respondents toward teaching whereby the respondents signified their agreement or disagreement to each indicator.

**Table 29**

**Attitude Toward Teaching of Teacher-Respondents**

<b>Attitude Statement</b>	<b>WM</b>	<b>I</b>
1. For the most part, teaching has been a pleasant experience.	4.41	A
2. Most of my students seem to care about me as a person	4.45	A
3. The main purpose of education is to help my students find a good future.	3.98	A
4. I work harder in school than most of my co-teachers.	4.14	A
5. I do only enough work in school to get by.	4.01	A
6. I should spend more time teaching.	4.07	A
7. I seem to enjoy teaching.	3.98	A
8. Teaching encourages me to	4.25	A

be creative.			
9. I would consider teaching as my best chosen career.	3.99		A
10. I try to please my students.	4.32		A
<b>Grand Weighted Mean</b>		<b>4.43</b>	
<b>Interpretation</b>		<b>A</b>	
<b>Legend:</b>			
4.51-5.00	Strongly Agree	(SA)	
3.51-4.50	Agree	(A)	
2.51-3.50	Uncertain	(U)	
1.51-2.50	Disagree	(D)	
1.00-1.50	Strongly Disagree	(SD)	
	Weighted Mean	(WM)	
	Interpretation	(I)	

It can be gleaned from Table 29 that all attitude statements were "agreed" by the teacher-respondents with weighted means ranging from 3.98 to 4.45. The attitude statements stating: "most of my students seem to care about me as a person;" and "I seem to enjoy teaching," were the attitude statements that obtained the highest and the least weighted means, respectively.

Taken as a whole, the appraisal on the attitude of the teacher-respondents toward teaching obtained a grand weighted mean of 4.43 which indicated that they "agreed" on it. This meant that the teacher-respondents manifested very favorable attitude toward teaching which indicated that they have the passion with their career.

#### **Academic Performance of Student-Respondents**

Table 30 presents the academic achievement of the student-respondents based on the mean grade of the first

**Table 30**

**Academic Performance of Student-Respondents  
Based on the Mean Grade of the First  
and Second Quarters**

<b>Rating</b>	<b>F</b>	<b>%</b>
85.00-86.99	24	9.56
83.00-84.99	49	19.52
81.00-82.99	97	38.65
79.00-80.99	56	22.32
77.00-78.99	25	9.96
<b>Total</b>	<b>251</b>	<b>100.00</b>
<b>Mean</b>	<b>81.92</b>	
<b>S. D.</b>	<b>2.19</b>	

and second quarters.

The table shows that a number of the student-respondents, that is, 97 or 38.65 percent obtained a rating of 81.00-82.99 while 56 of them or 22.32 percent garnered a rating of 79.00-80.99, 49 or 19.52 percent got a rating of 83.00-84.99, and the rest were distributed to the other identified rating brackets.

The mean academic achievement of the student-respondents based on the mean grade of the first and second quarters was posted at 81.92 with a SD of 2.19. This indicated that the student-respondents manifested favorable

academic achievement based on the mean grade of the first and second quarters, more or less their performance was close to each other being shown by the standard difference.

**Relationship Between the Academic Performance of the Student-Respondents and the Identified Factors**

This section shows the relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the identified factors, namely: student-related factors and teacher-related factors.

**Student-Related Factors.** Table 31 shows the relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the student-related factors in

**Table 31**

**Relationship Between the Academic Performance of the Student-Respondents Based on the Mean Grade of the First and Second Quarters and Their Personal Characteristics**

Variate	Linear Association		Fisher's t-Value	p-Value	Evaluation/ Decision
	Coefficient	Degree			
Age	0.058	Very Weak	0.858	0.395	NS / Accept Ho.
Sex	0.019	Very Weak	0.281	0.786	NS / Accept Ho.
Nutritional Status	0.043	Very Weak	0.635	0.522	NS / Accept Ho.

Obtained Grades	0.044	Very Weak	0.650	0.515	NS / Accept Ho.
Number of Days Present per Month in School	0.119	Very Weak	1.770	0.079	NS / Accept Ho.
Preferred Seats	0.136	Very Weak	2.027	0.045	S / Reject Ho.
Preferred Mode of Participation	0.138	Very Weak	2.020	0.040	S / Reject Ho.
Parents' Highest Educational Attainment	0.011	Very Weak	0.162	0.872	NS / Accept Ho.
Parents' Occupation	0.068	Very Weak	1.006	0.316	NS / Accept Ho.
Gross Monthly Family Income	0.045	Very Weak	0.665	0.544	NS / Accept Ho.

**Table 31 continued**

Variate	Linear Association		Fisher's t-Value	p-Value	Evaluation/Decision
	Coefficient	Degree			
Attitude Toward Schooling	0.079	Very Weak	1.170	0.310	NS / Accept Ho.
Study Habits	0.007	Very Weak	0.103	0.913	NS / Accept Ho.

Fisher's t-critical =  $\pm 1.971$   
df = 249                       $\alpha = .05$

S = Significant  
NS = Not Significant



terms of age and sex; nutritional status; obtained grades; number of days in attendance in school; preferred seats in the classroom; preferred mode of participation in the class; parents' highest educational attainment; parents' occupation; gross monthly family income; attitude toward schooling; and study habits.

**Age.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their age using the Pearson's  $r$ , the computed value was posted at 0.058 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.858 at  $df$  of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.395 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their age." This signified that the latter had no influence to the former.

**Sex.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their age using the Pearson's  $r$ , the computed value was posted at 0.019 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.281 at  $df$  of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.786 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their sex." This signified that the latter had no influence to the former.

**Nutritional Status.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their nutritional using the Pearson's  $r$ , the computed value was posted at 0.043 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.635 at  $df$

of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The p-value was calculated at 0.522 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their nutritional status." This signified that the latter had no influence to the former.

**Obtained Grades.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their obtained grades using the Pearson's  $r$ , the computed value was posted at 0.044 denoting a very weak linear association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at 0.650 at df of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The p-value was calculated at 0.515 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no

significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their obtained grades." This signified that the latter had no influence to the former.

**Number of Days Present per Month in School.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their number of days present per month in school using the Pearson's  $r$ , the computed value was posted at 0.119 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.770 at  $df$  of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.079 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their number of days present per month in school." This signified that the latter had no influence to the former.

**Preferred Seats.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their preferred seats in school using the Pearson's  $r$ , the computed value was posted at 0.136 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 2.027 at  $df$  of 249 and  $\alpha$  of .05 which turned greater than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.045 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was essentially significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their preferred seats." This signified that the latter influenced significantly the former.

The coefficient being positive suggested a direct proportional linear association which signified that the more proximate the student-respondents to the chalkboard, the higher were their academic performance. This could be attributed to the fact that being near the chalkboard they could capture the lecture of the teachers including the

notations written in the board which added to their understanding of the lesson.

**Preferred Mode of Participation.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their preferred mode of participation using the Pearson's  $r$ , the computed value was posted at 0.138 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 2.020 at  $df$  of 249 and  $\alpha$  of .05 which turned greater than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.040 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was essentially significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their preferred mode of participation." This signified that the latter influenced significantly the former.

The coefficient being positive suggested a direct proportional linear association which signified that the more varied the mode of participation preferred by the

student-respondents from group to individual activities, the higher were their academic performance. This could be attributed to the fact that having group activities they can enhance their sharing of ideas while doing individual activity it gives them opportunity to express their own ideas.

**Parents' Highest Educational Attainment.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their parents' highest educational attainment using the Pearson's  $r$ , the computed value was posted at 0.011 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.162 at  $df$  of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.872 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their parents' highest

educational attainment." This signified that the latter had no influence to the former.

**Parents' Occupation.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their parents' occupation using the Pearson's  $r$ , the computed value was posted at 0.068 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.006 at  $df$  of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.316 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their parents' occupation." This signified that the latter had no influence to the former.

**Gross Monthly Family Income.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their gross monthly family income using the Pearson's  $r$ , the



computed value was posted at 0.045 denoting a very weak linear association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at 0.665 at df of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The p-value was calculated at 0.544 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their gross monthly family income." This signified that the latter had no influence to the former.

**Attitude Toward Schooling.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their attitude toward schooling using the Pearson's r, the computed value was posted at 0.079 denoting a very weak linear association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at 1.170 at df of 249 and  $\alpha$  of .05 which turned

lesser than the critical value of  $\pm 1.971$ . The p-value was calculated at 0.310 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and their attitude toward schooling." This signified that the latter had no influence to the former.

**Study Habits.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and their study habits using the Pearson's  $r$ , the computed value was posted at 0.007 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.103 at  $df$  of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The p-value was calculated at 0.913 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance

of the student-respondents based on the mean grade of the first and second quarters and their study habits." This signified that the latter had no influence to the former.

In summary, of the student-related factors only their preferred seat in the classroom and the preferred mode of participation in class posed significant influence to their academic performance. While the other factors proved to have no influence to it.

**Teacher-Related Factors.** Table 32 shows the relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the teacher-related factors in terms of age and sex; civil status; highest educational attainment; teaching position; gross monthly family income; number of years in teaching; latest performance rating based on the IPCRF; number of instructional materials used for the first and second quarters; types of instructional materials prepared; number of relevant in-service trainings; and attitude toward teaching.

**Age.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and the age of the teacher-respondents using the Pearson's  $r$ , the computed value was posted at 0.183 denoting a very weak linear association. In testing

the significance of this value, the Fisher's t-test was employed whereby the computed was posted at 1.085 at df of 34 and  $\alpha$  of .05 which turned lesser than the critical value

**Table 32**

**Relationship Between the Academic Performance of the Student-Respondents Based on the Mean Grade of the First and Second Grading Periods and the Teacher-Related Characteristics**

Variate	Linear Association		Fisher's t-Value	p-Value	Evaluation/Decision
	Coefficient	Degree			
Age	0.183	Very Weak	1.085	0.292	NS / Accept Ho.
Sex	-0.144	Very Weak	0.849	0.417	NS / Accept Ho.
Civil Status	0.264	Weak	1.596	0.125	NS / Accept Ho.
Highest Educational Attainment	0.238	Weak	1.429	0.198	NS / Accept Ho.
Teaching Position	0.111	Very Weak	0.651	0.530	NS / Accept Ho.
Gross Monthly Family Income	0.067	Very Weak	0.392	0.703	NS / Accept Ho.
Number of Years in Teaching	0.238	Weak	1.429	0.189	NS / Accept Ho.
Latest Performance Rating Based on the IPCRF	0.147	Very Weak	0.867	0.399	NS / Accept Ho.

Number of IMs Used	0.213	Weak	1.271	0.220	NS / Accept Ho.
Type of IMs Prepared	-0.102	Very Weak	0.598	0.561	NS / Accept Ho.
Number of Relevant In-Service Training	0.520	Moderate	3.550	0.001	S / Reject Ho.

**Table 32 continued**

Variate	Linear Association		Fisher's t-Value	p-Value	Evaluation/ Decision
	Coefficient	Degree			
Attitude Toward Teaching	0.525	Moderate	3.597	0.000	S / Reject Ho.

Fisher's t-critical =  $\pm 2.032$   
df = 34                       $\alpha = .05$

S = Significant  
NS = Not Significant

of  $\pm 2.032$ . The p-value was calculated at 0.292 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and age of the teachers." This signified that the latter had no influence to the former.

**Sex.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and the sex of the teacher-respondents

using the Pearson's  $r$ , the computed value was posted at -0.144 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.849 at  $df$  of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.032$ . The  $p$ -value was calculated at 0.417 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and sex of the teachers." This signified that the latter had no influence to the former.

**Civil Status.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and the civil status of the teacher-respondents using the Pearson's  $r$ , the computed value was posted at 0.264 denoting a weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.596 at  $df$  of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.032$ . The  $p$ -value was calculated at 0.125 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and civil status of the teachers." This signified that the latter had no influence to the former.

**Highest Educational Attainment.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and the highest educational attainment of the teacher-respondents using the Pearson's  $r$ , the computed value was posted at 0.238 denoting a weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.429 at  $df$  of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.032$ . The  $p$ -value was calculated at 0.198 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the

first and second quarters and the highest educational attainment of the teachers." This signified that the latter had no influence to the former.

**Teaching Position.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and the teaching position of the teacher-respondents using the Pearson's  $r$ , the computed value was posted at 0.111 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.651 at  $df$  of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.032$ . The  $p$ -value was calculated at 0.530 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the teaching position of the teachers." This signified that the latter had no influence to the former.

**Gross Monthly Family Income.** In associating the academic performance of the student-respondents based on



the mean grade of the first and second quarters and the gross monthly family income of the teacher-respondents using the Pearson's  $r$ , the computed value was posted at 0.067 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.392 at  $df$  of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.032$ . The  $p$ -value was calculated at 0.703 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the gross monthly family income of the teachers." This signified that the latter had no influence to the former.

**Number of Years in Teaching.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and the number of years in teaching of the teacher-respondents using the Pearson's  $r$ , the computed value was posted at 0.238 denoting a weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was

employed whereby the computed was posted at 1.429 at df of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.032$ . The p-value was calculated at 0.189 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the number of years in teaching of the teachers." This signified that the latter had no influence to the former.

**Latest Performance Rating Based on the IPCRF.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and the latest performance rating based on the IPCRF of the teacher-respondents using the Pearson's  $r$ , the computed value was posted at 0.147 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.867 at df of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.032$ . The p-value was calculated at 0.399 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the latest performance rating based on the IPCRF of the teachers." This signified that the latter had no influence to the former.

**Number of IMs Used.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and the number of IMs used by the teacher-respondents using the Pearson's  $r$ , the computed value was posted at 0.213 denoting a weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.271 at  $df$  of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.032$ . The  $p$ -value was calculated at 0.220 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the

first and second quarters and the number of IMs used by the teachers." This signified that the latter had no influence to the former.

**Type of IMs Prepared.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and the type of IMs prepared by the teacher-respondents using the Pearson's  $r$ , the computed value was posted at  $-0.102$  denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at  $0.598$  at  $df$  of  $34$  and  $\alpha$  of  $.05$  which turned lesser than the critical value of  $\pm 2.032$ . The  $p$ -value was calculated at  $0.561$  which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the type of IMs prepared by the teachers." This signified that the latter had no influence to the former.

**Number of Relevant In-Service Trainings.** In associating the academic performance of the student-

respondents based on the mean grade of the first and second quarters and the number of relevant in-service trainings of the teacher-respondents using the Pearson's  $r$ , the computed value was posted at 0.520 denoting a moderate linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 3.550 at  $df$  of 34 and  $\alpha$  of .05 which turned higher than the critical value of  $\pm 2.032$ . The  $p$ -value was calculated at 0.001 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the number of relevant in-service trainings of the teachers." This signified that the latter significantly influenced the former.

The coefficient being positive denoted a direct proportional linear relationship suggesting that the more trainings the teacher-respondents, the higher was the academic performance of the students. This could be attributed to the fact that the more trainings the teachers attend their teaching competence is enhanced thus become effective in teaching. In turn, the students also learn

effectively and thereby obtained higher academic performance.

**Attitude Toward Teaching.** In associating the academic performance of the student-respondents based on the mean grade of the first and second quarters and the attitude toward teaching of the teacher-respondents using the Pearson's  $r$ , the computed value was posted at 0.525 denoting a moderate linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 3.597 at  $df$  of 34 and  $\alpha$  of .05 which turned higher than the critical value of  $\pm 2.032$ . The  $p$ -value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the attitude toward teaching of the teachers." This signified that the latter significantly influenced the former.

The coefficient being positive denoted a direct proportional linear relationship suggesting that the more favorable the teachers have, the higher was the academic

performance of the students. This could be attributed to the fact that teachers with favorable attitude toward teaching devise varied strategies in teaching thus, become more effective and in turn, the students manifested higher academic performance.

In summary, of the teacher-related factors, only their number of relevant in-service trainings and attitude toward teaching significantly influenced the academic performance of the students. The other factors proved to have no influence to it.

### **Learning Styles of the Student-Respondents**

This section determines the learning styles of the student-respondents in terms of visual, aural, verbal, physical, logical, social, and solitary.

**Visual.** Table 33 appraises the learning styles of the student-respondents in terms of visual. There were 10 indicators considered in this area whereby the student-respondents assessed the regularity of their practice on each indicator.

As presented in Table 33, the student-respondents assessed five indicators as "frequently practiced" by them with weighted means ranging from 4.08 to 4.39. The indicators that obtained the highest and the least weighted

means corresponded to the statements stating: "I like books with lots of diagrams or illustrations;" and "I like visual arts, painting, sculpture. I like jigsaws and mazes," respectively. The remaining five indicators were appraised by this group of respondents as "seldom practiced" by them with weighted means ranging from 2.94 to 3.32. The statement stating, "I draw well, and find myself drawing or doodling on a notepad when thinking," was the least-rated indicator among the seldom practiced learning styles of the student-respondents.

Taken as a whole, the student-respondents averred that

**Table 33**

**Learning Styles of the Student-Respondents  
in Terms of Visual**

<b>Indicators</b>	<b>WM</b>	<b>I</b>
1. I can easily follow instructions represented in diagrams.	4.24	FP
3. I keep a journal or personal diary to record my thoughts.	3.32	SP
21. I like visual arts, painting, sculpture. I like jigsaws and mazes.	4.08	FP
30. I like books with lots of diagrams or illustrations.	4.39	FP
32. I like to read everything. Books, newspapers, magazines, menus, signs, the milk carton etc.	4.37	FP
36. I can easily visualize objects, buildings, situations etc. from plans or descriptions.	3.13	SP
39. I draw well, and find myself drawing or doodling on a notepad when thinking.	2.94	SP



45. I like making models, or working out jigsaws.	3.04	SP
47. I use diagrams and scribbles to communicate ideas and concepts. I love whiteboards (and color pens).	3.01	SP
69. I like using a camera or video camera to capture the world around me.	4.37	FP
<b>Grand Weighted Mean</b>		<b>3.69</b>
<b>Interpretation</b>		<b>FP</b>
<b>Legend:</b>		
4.51-5.00	Always Practice	(AP)
3.51-4.50	Frequently Practiced	(FP)
2.51-3.50	Seldom Practiced	(SP)
1.51-2.50	Rarely Practiced	(RP)
1.00-1.50	Not Practiced	(NP)
	Weighted Mean	(WM)
	Interpretation	(I)

they “frequently practiced” visual as a learning style being shown by the grand weighted mean of 3.69. This indicated that they learn more their lesson when they see illustrations presented to them. This suggests that the students could concretize learning when they IMs are used by the teachers in presenting the lesson.

**Aural.** Table 34 appraises the learning styles of the student-respondents in terms of aural. There were 10 indicators considered in this area whereby the student-respondents assessed the regularity of their practice on each indicator.

As presented in Table 34, the student-respondents assessed only one as “frequently practiced” by them which corresponded to the statement stating, “I hear small things

that others do not," with a weighted mean of 3.99. Seven indicators were assessed by this group as "seldom practiced" with weighted means ranging from 2.64 to 3.46. The statements stating: "I like to listen. People like to talk to me because they feel I understand them;" and "music evokes strong emotions and images as I listen to it. Music is prominent in my recall of memories," obtained the highest and the least weighted means, respectively.

The remaining two indicators were considered by this group of respondents as "rarely practiced" by them which corresponded to the statements stating, "I like listening to music - in the car, studying, at work (if possible!);" and "I can play a musical instrument or I can sing on (or close to) key," with weighted means of 2.46 and 2.41,

**Table 34**

**Learning Styles of the Student-Respondents  
in Terms of Aural**

Indicators	WM	I
4. I use rhythm or rhyme to remember things, e.g. phone numbers, passwords, other little saying.	3.05	SP
6. Music evokes strong emotions and images as I listen to it. Music is prominent in my recall of memories.	2.64	SP
12. Jingles, themes or parts of songs pop into my head at random.	3.05	SP
15. I occasionally realize I am tapping in time to music, or I naturally start to hum or whistle a tune. Even after only hearing a tune a few times, I can	3.08	SP

remember it.		
18. I like to listen. People like to talk to me because they feel I understand them.	3.46	SP
23. I like listening to music - in the car, studying, at work (if possible!).	2.46	RP
31. I do not like the sound of silence. I would prefer to have some background music or other noises over silence.	3.39	SP
46. I pay attention to the sounds of various things. I can tell the difference between instruments, or cars, or aircraft, based on their sound.	2.84	SP
51. I hear small things that others do not.	3.99	FP
66. I can play a musical instrument or I can sing on (or close to) key.	2.41	RP

---

**Grand Weighted Mean**

**3.04**

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**Interpretation**

**SP**

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<b>Legend:</b>	4.51-5.00	Always Practice	(AP)
	3.51-4.50	Frequently Practiced	(FP)
	2.51-3.50	Seldom Practiced	(SP)
	1.51-2.50	Rarely Practiced	(RP)
	1.00-1.50	Not Practiced	(NP)
		Weighted Mean	(WM)
		Interpretation	(I)

respectively. Taken as a whole, the student-respondents averred that they "seldom practiced" aural as a learning style being shown by the grand weighted mean of 3.04. This indicated that the student-respondents were not inclined to associate music with their learning styles probably because they are disturbed that instead of learning they tend to sing along with the music they hear while studying.

**Verbal.** Table 35 appraises the learning styles of the student-respondents in terms of verbal. There were 10 indicators considered in this area whereby the student-

respondents assessed the regularity of their practice on each indicator.

As presented in Table 35, the student-respondents assessed five indicators as "frequently practiced" with weighted means ranging from 3.55 to 4.41. The indicators that obtained the highest and the least weighted means, respectively, which corresponded to the statements stating: "I love telling stories, metaphors or anecdotes;" and "I use specific examples and references to support my points of view." The remaining five indicators were considered by this group of respondents as "seldom practiced" with weighted means ranging 2.65 to 3.45. In these group the statements stating: "I communicate well with others and often act as a mediator between them;" and "I like making puns, saying tongue-twisters, making rhymes," obtained the

**Table 35**

**Learning Styles of the Student-Respondents  
in Terms of Verbal**

<b>Indicators</b>	<b>WM</b>	<b>I</b>
8. I communicate well with others and often act as a mediator between them.	2.65	SP
20. I solve problems by "thinking aloud" - talking through issues, questions, possible solutions etc.	3.58	FP
34. I easily express myself, whether its verbal or written. I can give clear explanations to others.	3.37	SP
41. English, languages and literature were favorite subjects at school.	3.64	FP

42. I use specific examples and references to support my points of view.	3.55	FP
48. I navigate well and use maps with ease. I rarely get lost. I have a good sense of direction. I usually know which way North is.	3.12	SP
54. I like making puns, saying tongue-twisters, making rhymes.	3.45	SP
55. I would prefer to physically touch or handle something to understand how it works.	3.81	FP
61. I love telling stories, metaphors or anecdotes.	4.41	FP
64. In regular conversation I frequently use references to other things I have heard or read.	3.45	SP
<b>Grand Weighted Mean</b>		<b>3.50</b>
<b>Interpretation</b>		<b>SP</b>
<b>Legend:</b>		
4.51-5.00	Always Practice	(AP)
3.51-4.50	Frequently Practiced	(FP)
2.51-3.50	Seldom Practiced	(SP)
1.51-2.50	Rarely Practiced	(RP)
1.00-1.50	Not Practiced	(NP)
	Weighted Mean	(WM)
	Interpretation	(I)

highest and the least weighted means, respectively.

Taken as a whole, the student-respondents averred that they "seldom practiced" verbal as a learning style being shown by the grand weighted mean of 3.50. This indicated that the student-respondents were not inclined to associate verbalization with their learning styles.

**Physical.** Table 36 appraises the learning styles of the student-respondents in terms of physical. There were 10 indicators considered in this area whereby the student-

respondents assessed the regularity of their practice on each indicator.

As gleaned from Table 36, the student-respondents considered five indicators along this learning style with weighted means ranging from 3.76 to 4.30. The indicators that obtained the highest and the least weighted means, respectively, corresponded to the statement stating: "I enjoy dancing;" and "I like gardening or working with my hands in the shed out the back." The remaining five indicators were appraised by this group of respondents as "seldom practiced" by them with weighted means ranging from 2.72 to 3.33. In these group the statements stating: "In school I like/liked wood or metal working, craft, sculpture, pottery;" and "I like to think out ideas, problems, or issues while doing something physical."

Taken as a whole, the student-respondents averred that they "frequently practiced" physical as a learning style

**Table 36**

**Learning Styles of the Student-Respondents  
in Terms of Physical**

Indicators	WM	I
9. In school I like/liked wood or metal working, craft, sculpture, pottery.	2.72	SP
13. I love sport and exercise.	4.24	FP
16. I like gardening or working with my hands in the shed out the back.	3.76	FP

19. I like the texture and feel of clothes, furniture and other objects.	4.06	FP
25. I enjoy dancing.	4.30	FP
35. I am overly sensitive to activities that involve physical movement. For example, I might love the theme park rides that involve lots of physical action, or I hate them because of the effect the physical forces have on my body.	3.08	SP
37. I use lots of hand gestures or other physical body language when communicating with others.	4.25	FP
38. I like playing games with others, such as cards and board games.	3.15	SP
44. I prefer team games and sports such as football/soccer, basketball, netball, volleyball etc.	3.08	SP
58. I like to think out ideas, problems, or issues while doing something physical.	3.33	SP
<b>Grand Weighted Mean</b>		<b>3.60</b>
<b>Interpretation</b>		<b>FP</b>
<b>Legend:</b>		
4.51-5.00	Always Practice	(AP)
3.51-4.50	Frequently Practiced	(FP)
2.51-3.50	Seldom Practiced	(SP)
1.51-2.50	Rarely Practiced	(RP)
1.00-1.50	Not Practiced	(NP)
	Weighted Mean	(WM)
	Interpretation	(I)

being shown by the grand weighted mean of 3.60. This indicated that the student-respondents were inclined to associate physical with their learning styles probably because they could learn more while dancing or doing some physical movements.

**Logical**. Table 37 appraises the learning styles of the student-respondents in terms of logical. There were 10 indicators considered in this area whereby the student-

respondents assessed the regularity of their practice on each indicator.

As gleaned from Table 37, the student-respondents considered six indicators as "frequently practiced" by them with weighted means ranging from 3.69 to 4.20. The statements stating: "I like crosswords, play scrabble and word games;" and "I use a specific step-by-step process to work out problems," obtained the highest and the least weighted means, respectively. Three indicators were assessed by this group of respondents as "seldom practiced" with weighted means of 2.95 and 3.10 with statements stating: "I put together itineraries and agendas for travel. I put together detailed lists, such as to-do lists, and I number and prioritize them;" and "I have a great vocabulary, and like using the right word at the right time," respectively.

The remaining indicator was appraised by them as "rarely practiced" with the statement stating, "I like logic games and brainteasers. I like chess and other

**Table 37**

**Learning Styles of the Student-Respondents  
in Terms of Logical**

<b>Indicators</b>	<b>WM</b>	<b>I</b>
5. I like logic games and brainteasers. I	2.33	RP



like chess and other strategy games.		
7. I put together itineraries and agendas for travel. I put together detailed lists, such as to-do lists, and I number and prioritize them.	2.95	SP
14. I have a great vocabulary, and like using the right word at the right time.	3.10	SP
17. Mathematics and sciences were my preferred subjects at school.	3.73	FP
27. I use a specific step-by-step process to work out problems.	3.69	FP
29. I can balance a check book, and I like to set budgets and other numerical goals.	3.14	SP
40. I am goal oriented and know the directions I am going.	3.80	FP
43. I easily work with numbers, and can do decent calculations in my head.	3.71	FP
65. I like identifying logic flaws in other people's words and actions.	3.77	FP
70. I like crosswords, play scrabble and word games.	4.20	FP
Grand Weighted Mean		3.44
Interpretation		SP
Legend:	4.51-5.00	Always Practice (AP)
	3.51-4.50	Frequently Practiced (FP)
	2.51-3.50	Seldom Practiced (SP)
	1.51-2.50	Rarely Practiced (RP)
	1.00-1.50	Not Practiced (NP)
		Weighted Mean (WM)
		Interpretation (I)

strategy games," with a weighted mean of 2.33.

Taken as a whole, the student-respondents averred that they "seldom practiced" logic as a learning style being shown by the grand weighted mean of 3.44. This indicated that the student-respondents were not inclined to associate reasoning with their learning styles.

**Social.** Table 38 appraises the learning styles of the student-respondents in terms of social. There were 10 indicators considered in this area whereby the student-respondents assessed the regularity of their practice on each indicator.

Table 38 presents that the student-respondents assessed two indicators as "always practiced" by them. These corresponded to the statements stating: "I enjoy learning in classroom style surroundings with other people. I enjoy the interaction to help my learning;" and "I have a number of very close friends," with weighted means of 4.63 and 4.60, respectively. Four indicators were considered by this same group of respondents as "frequently practiced" with weighted means ranging from 3.76 to 4.24. In these group of indicators the statements stating: "I am OK with taking the lead and showing others the way ahead;" and "I like being a mentor or guide for others," obtained the highest and the least weighted means, respectively.

The remaining indicators were considered by the student-respondents as "rarely practiced" by them stating: "I like getting out of the house and being with others at parties and other social events;" and "I would prefer to

**Table 38**

**Learning Styles of the Student-Respondents  
in Terms of Social**

<b>Indicators</b>		<b>WM</b>	<b>I</b>
10.	I like getting out of the house and being with others at parties and other social events.	1.59	RP
24.	I would prefer to holiday on a deserted island rather than a resort or cruise ship with lots of other people around.	2.05	RP
28.	I enjoy learning in classroom style surroundings with other people. I enjoy the interaction to help my learning.	4.63	AP
33.	I have a number of very close friends.	4.60	AP
49.	I prefer to talk over problems, issues, or ideas with others, rather than working on them by myself.	3.23	SP
56.	I like being a mentor or guide for others.	3.76	FP
59.	I am OK with taking the lead and showing others the way ahead.	4.24	FP
63.	I easily absorb information through reading, audiocassettes or lectures. The actual words come back to me easily.	3.73	FP
67.	I like to understand how and why things work. I keep up to date with Science and Technology.	3.12	SP
68.	I enjoy finding relationships between numbers and objects. I like to categorize or group things to help me understand the relationships between them.	3.84	FP
<b>Grand Weighted Mean</b>		<b>3.48</b>	
<b>Interpretation</b>		<b>SP</b>	
<b>Legend:</b>	4.51-5.00	Always Practice	(AP)
	3.51-4.50	Frequently Practiced	(FP)
	2.51-3.50	Seldom Practiced	(SP)
	1.51-2.50	Rarely Practiced	(RP)
	1.00-1.50	Not Practiced	(NP)
		Weighted Mean	(WM)
		Interpretation	(I)

holiday on a deserted island rather than a resort or cruise ship with lots of other people around," respectively.

Taken as a whole, the student-respondents averred that they "seldom practiced" social as a learning style being shown by the grand weighted mean of 3.48. This indicated that the student-respondents were not inclined to socialize with their learning styles which indicated that they do not subscribe more on collaborative learning rather individual learning.

**Solitary**. Table 39 appraises the learning styles of the student-respondents in terms of solitary. There were 10 indicators considered in this area whereby the student-respondents assessed the regularity of their practice on each indicator.

As gleaned in Table 39 the student-respondents assessed eight indicators as "frequently practiced" by them with weighted means ranging from 3.57 to 4.29. The indicators stating: "I have a personal or private interest or hobby that I like to do alone;" and "I spend time alone to reflect and think about important aspects of my life," equally obtained the highest weighted means. On the other hand, the statement stating, "I think independently. I know how I think and I make up my own mind. I understand my own

strengths and weaknesses," obtained the least weighted mean.

**Table 39**

**Learning Styles of the Student-Respondents  
in Terms of Solitary**

Indicators	WM	I
2. I have a personal or private interest or hobby that I like to do alone.	4.29	FP
11. I think independently. I know how I think and I make up my own mind. I understand my own strengths and weaknesses.	3.57	FP
22. I am happy in my own company. I like to some things alone and away from others.	3.15	SP
26. I prefer to work for myself - or I have thought a lot about it.	4.02	FP
50. I have a good sense of color.	3.92	FP
52. I prefer to study or work alone.	3.94	FP
53. Music was my favorite subject at school.	3.08	SP
57. In school I preferred art, technical drawing, geometry.	3.80	FP
60. I spend time alone to reflect and think about important aspects of my life.	4.29	FP
62. I read self-help books, or have been to self-help workshops or done similar work to learn more about myself.	3.71	FP
<b>Grand Weighted Mean</b>	<b>3.78</b>	
Interpretation	FP	
<b>Legend:</b>		
4.51-5.00	Always Practice	(AP)
3.51-4.50	Frequently Practiced	(FP)
2.51-3.50	Seldom Practiced	(SP)
1.51-2.50	Rarely Practiced	(RP)
1.00-1.50	Not Practiced	(NP)
	Weighted Mean	(WM)
	Interpretation	(I)

The remaining two indicators were considered "seldom practiced" corresponding to the statements stating: "I am happy in my own company. I like to some things alone and away from others;" and "music was my favorite subject at school," with weighted means of 3.15 and 3.08, respectively.

Taken as a whole, the student-respondents averred that they "frequently practiced" solitary as a learning style being shown by the grand weighted mean of 3.78. This indicated that the student-respondents were more inclined to solitary with their learning styles which indicated that they subscribe more on individual learning.

In summary, the student-respondents frequently practiced the visual, physical, and solitary learning styles while they seldom practice other identified learning styles.

#### **Comparison of the Learning Styles of the Student-Respondents When Grouped According to Their Personal Characteristics**

Table 40 presents the comparison of the learning styles of the student-respondents in terms of the aforementioned areas when grouped according to their personal characteristics in terms of age and sex; nutritional status; obtained grades; number of days in

attendance in school; preferred seats in the classroom; preferred mode of participation in the class; parents' highest educational attainment; parents' occupation; gross monthly family income; attitude toward schooling; and study habits.

**Table 40**

**Differences in the Learning Styles of the Student-  
Respondents When Grouped According to Their  
Personal Characteristics**

Characteristics	df	F-value		p-value	Evaluation/ Decision
		Computed	Critical		
Age	12 237	0.488	<u>+2.790</u>	0.921	N / Accept Ho
Sex	12 238	0.580	<u>+2.790</u>	0.857	N / Accept Ho
Nutritional Status	12 238	0.000	<u>+2.790</u>	0.999	N / Accept Ho
Obtained Grade	12 238	8.061	<u>+2.790</u>	0.000	S / Reject Ho
Number of Days Present per Month in School	12 238	50.598	<u>+2.790</u>	0.000	S / Reject Ho
Preferred Seats	12 238	13.667	<u>+2.790</u>	0.000	S / Reject Ho
Preferred Mode of Participa- tion	12 238	13.865	<u>+2.790</u>	0.000	S / Reject Ho
Parents' Highest Educational Attainment	12 238	14.890	<u>+2.790</u>	0.000	S / Reject Ho
Parents' Occupa- tion	12 238	16.293	<u>+2.790</u>	0.000	S / Reject Ho
Gross Monthly Family Income	12 238	25.918	<u>+2.790</u>	0.000	S / Reject Ho
Attitude Toward Schooling	12 238	14.961	<u>+2.790</u>	0.000	S / Reject Ho
Study Habits	12 238	16.263	<u>+2.790</u>	0.000	S / Reject Ho

**Age**. In comparing the learning styles of the student-respondents when grouped according to their age using the one-way ANOVA, the computed value was posted at 0.488 at df of 12 and 237 with the  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.790$ . The p-value was calculated at 0.921 which turned greater than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was not significant as to age. This led to the acceptance of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their age." This signified that the learning styles of the student-respondents irrespective of their age were essentially similar.

**Sex**. In comparing the learning styles of the student-respondents when grouped according to their sex using the one-way ANOVA, the computed value was posted at 0.580 at df of 12 and 238 with the  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.790$ . The p-value was calculated at 0.857 which turned greater than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was not



significant as to sex. This led to the acceptance of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their sex." This signified that the learning styles of the student-respondents irrespective of their sex were essentially similar.

**Nutritional Status.** In comparing the learning styles of the student-respondents when grouped according to their nutritional status using the one-way ANOVA, the computed value was posted at 0.000 at df of 12 and 238 with the  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.790$ . The p-value was calculated at 0.999 which turned greater than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was not significant as to nutritional status. This led to the acceptance of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their nutritional status." This signified that the learning styles of the student-respondents irrespective of their nutritional status were essentially similar.

**Obtained Grade.** In comparing the learning styles of the student-respondents when grouped according to their obtained grades using the one-way ANOVA, the computed value was posted at 8.061 at df of 12 and 238 with the  $\alpha$  of .05 which turned greater than the critical value of  $\pm 2.790$ . The p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was significant as to their obtained grades. This led to the rejection of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their obtained grades." This signified that the learning styles of the student-respondents were essentially dissimilar depending upon their obtained grades. Those who obtained higher academic performance tend to practice more frequently visual, physical, and solitary learning styles.

**Number of Days of Attendance in School.** In comparing the learning styles of the student-respondents when grouped according to their number of days present per month in school using the one-way ANOVA, the computed value was posted at 50.598 at df of 12 and 238 with the  $\alpha$  of .05 which turned greater than the critical value of  $\pm 2.790$ . The

p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was significant as to their number of days present per month in school. This led to the rejection of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their number of days present per month in school." This signified that the learning styles of the student-respondents were essentially dissimilar depending upon the number of days present per month in school. Those who were regular in attending classes tend to practice more frequently visual, physical, and solitary learning styles.

**Preferred Seats.** In comparing the learning styles of the student-respondents when grouped according to their preferred seats in class using the one-way ANOVA, the computed value was posted at 13.667 at df of 12 and 238 with the  $\alpha$  of .05 which turned greater than the critical value of  $\pm 2.790$ . The p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was significant as to their preferred seat in class. This led to the

rejection of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their preferred seat." This signified that the learning styles of the student-respondents were essentially dissimilar depending upon the preferred seat in class. Those who were seated closer to the chalkboard tend to practice more frequently visual, physical, and solitary learning styles.

**Preferred Mode of Participation.** In comparing the learning styles of the student-respondents when grouped according to their preferred mode of participation in class using the one-way ANOVA, the computed value was posted at 13.865 at df of 12 and 238 with the  $\alpha$  of .05 which turned greater than the critical value of  $\pm 2.790$ . The p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was significant as to their preferred mode of participation in class. This led to the rejection of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their preferred mode of participation." This signified that the learning styles of the student-respondents were essentially dissimilar depending upon the preferred mode of

participation in class. Those who preferred individual activity tend to practice more frequently visual, physical, and solitary learning styles.

**Parents' Highest Educational Attainment.** In comparing the learning styles of the student-respondents when grouped according to their parents' highest educational attainment using the one-way ANOVA, the computed value was posted at 14.890 at df of 12 and 238 with the  $\alpha$  of .05 which turned greater than the critical value of +2.790. The p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was significant as to their parents' highest educational attainment. This led to the rejection of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their parents' highest educational attainment." This signified that the learning styles of the student-respondents were essentially dissimilar depending upon the highest educational attainment of their parents. Those whose parents were more educated tend to practice more frequently visual, physical, and solitary learning styles.

**Parents' Occupation.** In comparing the learning styles of the student-respondents when grouped according to their

parents' occupation using the one-way ANOVA, the computed value was posted at 16.293 at df of 12 and 238 with the  $\alpha$  of .05 which turned greater than the critical value of  $\pm 2.790$ . The p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was significant as to their parents' occupation. This led to the rejection of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their parents' occupation." This signified that the learning styles of the student-respondents were essentially dissimilar depending upon the occupation of their parents. Those whose parents were more stable in terms of occupation tend to practice more frequently visual, physical, and solitary learning styles.

**Gross Monthly Family Income.** In comparing the learning styles of the student-respondents when grouped according to their gross monthly family income using the one-way ANOVA, the computed value was posted at 25.918 at df of 12 and 238 with the  $\alpha$  of .05 which turned greater than the critical value of  $\pm 2.790$ . The p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was significant as to their gross monthly family income. This led to the rejection of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their gross monthly family income." This signified that the learning styles of the student-respondents were essentially dissimilar depending upon the gross monthly income of the family. Those who have higher gross monthly family income tend to practice more frequently visual, physical, and solitary learning styles.

**Attitude Toward Schooling.** In comparing the learning styles of the student-respondents when grouped according to their attitude toward teaching using the one-way ANOVA, the computed value was posted at 14.961 at df of 12 and 238 with the  $\alpha$  of .05 which turned greater than the critical value of  $\pm 2.790$ . The p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was significant as to their attitude toward teaching. This led to the rejection of the null hypothesis stating, "there is no significant difference in the learning styles of the

student-respondents when grouped according to their attitude toward teaching." This signified that the learning styles of the student-respondents were essentially dissimilar depending upon their attitude toward teaching. Those who have more favorable attitude toward schooling tend to practice more frequently visual, physical, and solitary learning styles.

**Study Habits.** In comparing the learning styles of the student-respondents when grouped according to their study habits using the one-way ANOVA, the computed value was posted at 16.263 at df of 12 and 238 with the  $\alpha$  of .05 which turned greater than the critical value of  $\pm 2.790$ . The p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the difference in the learning styles of the student-respondents was significant as to their study habits. This led to the rejection of the null hypothesis stating, "there is no significant difference in the learning styles of the student-respondents when grouped according to their study habits." This signified that the learning styles of the student-respondents were essentially dissimilar depending upon their study habits. Those who have frequent study habits



tend to practice more frequently visual, physical, and solitary learning styles.

In summary, the learning styles of the student-respondents were varied depending upon their obtained grades; number of days in attendance in school; preferred seats in the classroom; preferred mode of participation in the class; parents' highest educational attainment; parents' occupation; gross monthly family income; attitude toward schooling; and study habits.

#### **Relationship Between the Learning Styles of the Student-Respondents and the Identified Factors**

This section presents the relationship between the learning styles of the student-respondents in terms of the identified areas and the following factors, namely: student-related factors; teacher-related factors; and academic performance of the student-respondents based on the mean grade of the first and second grading quarters.

**Student-Related Factors.** Table 40 shows the relationship between the perceived learning styles of the student-respondents and their personal-related factors in terms of age and sex; nutritional status; obtained grades; number of days in attendance in school; preferred seats in the classroom; preferred mode of participation in the

class; parents' highest educational attainment; parents' occupation; gross monthly family income; attitude toward schooling; and study habits.

**Age.** In associating the relationship between the learning styles of the student-respondents and their age using the Pearson's  $r$ , the computed value was posted at 0.527 denoting a moderate linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 9.785 at  $df$  of 249 and  $\alpha$  of .05 which turned greater than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the

**Table 41**

**Relationship Between the Perceived Learning Styles  
of the Student-Respondents and Their Personal-  
Related Factors**

Variate	Linear Association		Fisher's $t$ -Value	$p$ -Value	Evaluation/ Decision
	Coefficient	Degree			
Age	0.527	Moderate	9.785	0.000	S / Reject $H_0$ .
Sex	0.064	Very Weak	1.012	0.843	NS / Accept $H_0$ .
Nutritional Status	0.273	Weak	4.478	0.000	S / Reject $H_0$ .
Obtained	0.134	Very Weak	2.134	0.679	NS / Accept

Grade						Ho.
Number of Days Present per Month in School	0.596	Moderate	11.712	0.000	S /	Reject Ho.
Preferred Seats	0.478	Moderate	8.587	0.000	S /	Reject Ho.
Preferred Mode of Participation	0.144	Very Weak	2.296	0.046	S /	Reject Ho.
Parents' Highest Educational Attainment	0.064	Very Weak	1.012	0.844	NS /	Accept Ho.
Parents' Occupation	0.134	Very Weak	1.134	0.679	NS /	Accept Ho.
Gross Monthly Family Income	0.144	Very Weak	2.296	0.046	S /	Reject Ho.
Attitude Toward Schooling	0.596	Moderate	11.712	0.000	S /	Reject Ho.

**Table 41 continued**

Variate	Linear Association		Fisher's t-Value	p-Value	Evaluation/ Decision
	Coefficient	Degree			
Study Habits	0.478	Moderate	8.587	0.000	S / Reject Ho.

Fisher's t-critical =  $\pm 2.228$   
df = 249  
 $\alpha = .05$

S = Significant  
NS = Not Significant

rejection of the null hypothesis stating, "there is no significant relationship between the relationship between

the learning styles of the student-respondents and their age." This signified that the latter significantly influenced the former.

The coefficient being positive denoted a direct linear association suggesting that older student-respondents practiced more frequently learning styles than the younger ones.

**Sex.** In associating the relationship between the learning styles of the student-respondents and their sex using the Pearson's  $r$ , the computed value was posted at 0.064 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.012 at  $df$  of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.843 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and their sex." This signified that the latter had no influence to the former.

**Nutritional Status.** In associating the relationship between the learning styles of the student-respondents and their nutritional status using the Pearson's  $r$ , the computed value was posted at 0.273 denoting a weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 4.478 at  $df$  of 249 and  $\alpha$  of .05 which turned higher than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and their nutritional status." This signified that the latter significantly influenced the former.

The coefficient being positive denoted a direct linear association suggesting that student-respondents with normal nutritional status practiced more frequently learning styles.

**Obtained Grade.** In associating the relationship between the learning styles of the student-respondents and their obtained grades using the Pearson's  $r$ , the computed value was posted at 0.134 denoting a very weak linear

association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at 2.134 at df of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The p-value was calculated at 0.679 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and their obtained grades." This signified that the latter had no influence to the former.

**Number of Days of Attendance in School.** In associating the relationship between the learning styles of the student-respondents and their number of days present per month in school using the Pearson's r, the computed value was posted at 0.596 denoting a moderate linear association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at 11.712 at df of 249 and  $\alpha$  of .05 which turned higher than the critical value of  $\pm 1.971$ . The p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the

rejection of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and their number of days present per month in school." This signified that the latter significantly influence the former.

The coefficient being positive denoted a direct linear association suggesting that student-respondents with regular attendance in school every month practiced more frequently learning styles.

**Preferred Seats.** In associating the relationship between the learning styles of the student-respondents and their preferred seats using the Pearson's  $r$ , the computed value was posted at 0.478 denoting a moderate linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 8.587 at  $df$  of 249 and  $\alpha$  of .05 which turned higher than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and their

preferred seats." This signified that the latter significantly influence the former.

The coefficient being positive denoted a direct linear association suggesting that student-respondents who preferred seats near the chalkboard practiced more frequently learning styles.

**Preferred Mode of Participation.** In associating the relationship between the learning styles of the student-respondents and their preferred mode of participation using the Pearson's  $r$ , the computed value was posted at 0.144 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.296 at  $df$  of 249 and  $\alpha$  of .05 which turned higher than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.046 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and their preferred mode of participation." This signified that the latter significantly influence the former.



The coefficient being positive denoted a direct linear association suggesting that student-respondents who preferred individual activity practiced more frequently learning styles.

**Parents' Highest Educational Attainment.** In associating the relationship between the learning styles of the student-respondents and their parents' highest educational attainment using the Pearson's  $r$ , the computed value was posted at 0.064 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.012 at  $df$  of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.844 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and their parents' highest educational attainment." This signified that the latter had no influence to the former.

**Parents' Occupation.** In associating the relationship between the learning styles of the student-respondents and their parents' occupation using the Pearson's  $r$ , the

computed value was posted at 0.134 denoting a very weak linear association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at 1.134 at df of 249 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 1.971$ . The p-value was calculated at 0.679 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and their parents' occupation." This signified that the latter had no influence to the former.

**Gross Monthly Family Income.** In associating the relationship between the learning styles of the student-respondents and their gross monthly family income using the Pearson's r, the computed value was posted at 0.144 denoting a very weak linear association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at 2.296 at df of 249 and  $\alpha$  of .05 which turned greater than the critical value of  $\pm 1.971$ . The p-value was calculated at 0.046 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and their gross monthly family income." This signified that the latter significantly influence to the former.

The coefficient being positive denoted a direct proportional linear association suggesting that the students whose gross monthly family income manifested frequent learning styles.

**Attitude Toward Schooling.** In associating the relationship between the learning styles of the student-respondents and their attitude toward schooling using the Pearson's  $r$ , the computed value was posted at 0.596 denoting a moderate linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 11.712 at  $df$  of 249 and  $\alpha$  of .05 which turned greater than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the rejection of the null hypothesis stating, "there is no

significant relationship between the relationship between the learning styles of the student-respondents and their attitude toward schooling." This signified that the latter significantly influence to the former.

The coefficient being positive denoted a direct proportional linear association suggesting that the students who have favorable attitude toward schooling manifested frequent learning styles.

**Study Habits.** In associating the relationship between the learning styles of the student-respondents and their study habits using the Pearson's  $r$ , the computed value was posted at 0.478 denoting a moderate linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 8.587 at  $df$  of 249 and  $\alpha$  of .05 which turned greater than the critical value of  $\pm 1.971$ . The  $p$ -value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and their study habits." This signified that the latter significantly influence to the former.

The coefficient being positive denoted a direct proportional linear association suggesting that the students who have regular study habits manifested frequent learning styles.

In summary, of the student-related factors, age, nutritional status, preferred seats in the classroom, preferred mode of participation in the class, gross monthly family income, attitude toward schooling, and study habits. The other factors posed no influence to it.

**Teacher-Related Factors.** Table 42 shows the relationship the between the learning styles of the student-respondents and the teacher-related factors in terms of age and sex; civil status; highest educational attainment; teaching position; gross monthly family income; number of years in teaching; latest performance rating based on the IPCRF; number of instructional materials used for the first and second quarters; types of instructional materials prepared; number of relevant in-service trainings; and attitude toward teaching.

**Age.** In associating the relationship between the learning styles of the student-respondents and the age of their teachers using the Pearson's  $r$ , the computed value was posted at 0.183 denoting a very weak linear association. In testing the significance of this value, the

Fisher's t-test was employed whereby the computed was posted at 1.069 at df of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.035$ . The p-value was

**Table 42**

**Relationship Between the Perceived Learning Styles of the Student-Respondents and the Teacher-Related Factors**

Variate	Linear Association		Fisher's t-Value	p-Value	Evaluation/ Decision
	Coefficient	Degree			
Age	0.183	Very Weak	1.069	0.292	NS / Accept Ho.
Sex	-0.144	Very Weak	0.836	0.417	NS / Accept Ho.
Civil Status	0.264	Weak	1.572	0.125	NS / Accept Ho.
Highest Educational Attainment	-0.238	Weak	1.408	0.198	NS / Accept Ho.
Teaching Position	0.111	Very Weak	0.642	0.530	NS / Accept Ho.
Gross Monthly Family Income	0.067	Very Weak	0.386	0.703	NS / Accept Ho.
Number of Years in Teaching	0.238	Weak	1.408	0.189	NS / Accept Ho.
Latest Performance Rating Based the IPCRF	0.148	Very Weak	0.854	0.399	NS / Accept Ho.
Number of Instructional Materials Used	0.215	Weak	1.252	0.220	NS / Accept Ho.
Types of IMs Prepared	0.210	Weak	1.252	0.220	NS / Accept Ho.
Number of Relevant In-Service	-0.100	Very Weak	0.589	0.561	NS / Accept Ho.

Trainings					
Attitude					
Toward	0.521	Moderate	3.497	0.001	S / Reject
Teaching					Ho.

Fisher's t-critical =  $\pm 2.035$   
df = 34                       $\alpha = .05$

S = Significant  
NS = Not Significant

calculated at 0.292 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and age of the teachers." This signified that the latter had no influence to the former.

**Sex.** In associating the relationship between the learning styles of the student-respondents and the sex of their teachers using the Pearson's  $r$ , the computed value was posted at -0.144 denoting a very weak linear association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at 0.836 at df of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.035$ . The p-value was calculated at 0.417 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no

significant relationship between the relationship between the learning styles of the student-respondents and sex of the teachers." This signified that the latter had no influence to the former.

**Civil Status.** In associating the relationship between the learning styles of the student-respondents and the civil status of their teachers using the Pearson's  $r$ , the computed value was posted at 0.264 denoting a weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.572 at  $df$  of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.035$ . The  $p$ -value was calculated at 0.125 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and civil status of the teachers." This signified that the latter had no influence to the former.

**Highest Educational Attainment.** In associating the relationship between the learning styles of the student-respondents and the highest educational attainment of their teachers using the Pearson's  $r$ , the computed value was



posted at  $-0.238$  denoting a weak linear association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at  $1.408$  at df of  $34$  and  $\alpha$  of  $.05$  which turned lesser than the critical value of  $\pm 2.035$ . The p-value was calculated at  $0.198$  which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and highest educational attainment of the teachers." This signified that the latter had no influence to the former.

**Teaching Position.** In associating the relationship between the learning styles of the student-respondents and the teaching position of their teachers using the Pearson's  $r$ , the computed value was posted at  $0.111$  denoting a very weak linear association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at  $0.642$  at df of  $34$  and  $\alpha$  of  $.05$  which turned lesser than the critical value of  $\pm 2.035$ . The p-value was calculated at  $0.530$  which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and teaching position of the teachers." This signified that the latter had no influence to the former.

**Gross Monthly Family Income.** In associating the relationship between the learning styles of the student-respondents and the teaching position of their teachers using the Pearson's  $r$ , the computed value was posted at 0.067 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.386 at  $df$  of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.035$ . The  $p$ -value was calculated at 0.703 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and gross monthly family income of the teachers." This signified that the latter had no influence to the former.

**Number of Years in Teaching.** In associating the relationship between the learning styles of the student-respondents and the number of years in teaching of their teachers using the Pearson's  $r$ , the computed value was posted at 0.238 denoting a weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.408 at  $df$  of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.035$ . The  $p$ -value was calculated at 0.189 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and number of years in teaching of the teachers." This signified that the latter had no influence to the former.

**Latest Performance Rating Based the IPCRF.** In associating the relationship between the learning styles of the student-respondents and the latest performance rating of the teaching of their teachers using the Pearson's  $r$ , the computed value was posted at 0.148 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the

computed was posted at 0.854 at df of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.035$ . The p-value was calculated at 0.399 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and the latest performance rating based on the IPCRF of the teachers." This signified that the latter had no influence to the former.

**Number of Instructional Materials Used.** In associating the relationship between the learning styles of the student-respondents and the number of IMs used by their teachers using the Pearson's  $r$ , the computed value was posted at 0.148 denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 0.854 at df of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.035$ . The p-value was calculated at 0.399 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the

acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and the number of IMs used by the teachers." This signified that the latter had no influence to the former.

**Types of IMs Prepared.** In associating the relationship between the learning styles of the student-respondents and the types of IMs prepared by their teachers using the Pearson's  $r$ , the computed value was posted at 0.210 denoting a weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at 1.252 at  $df$  of 34 and  $\alpha$  of .05 which turned lesser than the critical value of  $\pm 2.035$ . The  $p$ -value was calculated at 0.220 which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and the types of IMs prepared by the teachers." This signified that the latter had no influence to the former.

**Number of Relevant In-Service Trainings.** In associating the relationship between the learning styles of

the student-respondents and the number of relevant in-service trainings their teachers using the Pearson's  $r$ , the computed value was posted at  $-0.100$  denoting a very weak linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at  $0.589$  at  $df$  of  $34$  and  $\alpha$  of  $.05$  which turned lesser than the critical value of  $\pm 2.035$ . The  $p$ -value was calculated at  $0.561$  which turned higher than the  $\alpha$ .

These values proved that the linear association between the variables was not significant which led to the acceptance of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and the number of relevant in-service trainings of the teachers." This signified that the latter had no influence to the former.

**Attitude Toward Teaching.** In associating the relationship between the learning styles of the student-respondents and the attitude toward teaching of their teachers using the Pearson's  $r$ , the computed value was posted at  $0.521$  denoting a moderate linear association. In testing the significance of this value, the Fisher's  $t$ -test was employed whereby the computed was posted at  $3.497$  at  $df$

of 34 and  $\alpha$  of .05 which turned greater than the critical value of  $\pm 2.035$ . The p-value was calculated at 0.001 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the relationship between the learning styles of the student-respondents and the attitude toward teaching of the teachers." This signified that the latter significantly influence the former.

The coefficient being positive denoted a direct linear association indicating that the student-respondents whose teachers possess favorable attitude toward teaching manifested exemplary performance.

In summary, of the teacher-related factors only their attitude toward teaching influenced significantly the learning styles of the students. The other factors proved to have no influence with it.

#### **Perceived Learning Styles of the Student-Respondents.**

Table 43 shows the relationship between the perceived learning styles of the student-respondents and their academic performance based on the mean grade of the first and second quarters.

In associating the relationship between the perceived learning styles of the student-respondents and their academic performance based on the mean grade of the first

**Table 43**

**Relationship Between the Perceived Learning Styles of the Student-Respondents and their Academic Performance**

Linear Association		Fisher's t-value	p-value	Evaluation/ Decision
Coefficient	Degree			
0.906	Very Strong	12.221	0.000	S/ Reject Ho

Fisher's t-critical =  $\pm 2.035$   
df = 34                       $\alpha = .05$

S = Significant  
NS = Not Significant

and second quarters using the Pearson's  $r$ , the computed value was posted at 0.906 denoting a very strong linear association. In testing the significance of this value, the Fisher's t-test was employed whereby the computed was posted at 12.221 at df of 34 and  $\alpha$  of .05 which turned greater than the critical value of  $\pm 2.035$ . The p-value was calculated at 0.000 which turned lesser than the  $\alpha$ .

These values proved that the linear association between the variables was significant which led to the rejection of the null hypothesis stating, "there is no significant relationship between the relationship between the perceived learning styles of the student-respondents



and their academic performance based on the mean grade of the first and second quarters." This signified that the latter significantly influence the former.

The coefficient being positive denoted a direct linear association indicating that the student-respondents who have frequently practiced learning styles manifested exemplary performance.

## **Chapter 5**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

This chapter presents the summary of the findings of the study with the corresponding conclusions drawn from the findings of the study and the recommendations based on the conclusions drawn.

#### **Summary of Findings**

The following were the salient findings of the study:

1. The oldest student-respondent was aged at 17 years old and the youngest was aged at 10 years old a mean age of 10.86 years old with a SD of 0.90 year.

2. Majority of them composed the female sex accounting for 157 or 70.92 percent.

3. Majority of the student-respondents were in normal nutritional status accounting for 231 or 92.03 percent.

4. The overall average of the obtained grades of the student-respondents during the first and second quarters were: English, 81.67 with a SD of 2.98; Science, 81.95 with SD of 1.79; Mathematics, 82.57 with a SD of 2.33; TLE, 82.56 with a SD of 2.03; and MAPEH, 82.35 with a SD of 1.68.

5. The average number of days in attendance of school for the first and second quarters of the student-respondents was posted at 48.27 days with a SD of 4.97 days.

6. A number of the student-respondents, that is, 91 or 36.25 percent preferred their seat near the chalkboard.

7. A number of the student-respondents, that is, 76 or 30.28 percent preferred group activity as their mode of participation.

8. Among the fathers of the student-respondents, number of them, that is, 120 or 47.81 percent were elementary graduates, while among the mothers of the student-respondents, 100 or 39.84 were elementary graduates.

9. A number of the fathers of the student-respondents, that is, 106 or 42.23 percent were fishermen while among their mothers, majority of them were not gainfully employed being the housekeepers accounting for 176 or 70.12 percent.

10. The mean monthly family income of the student-respondents was registered at PhP4,282.74 with a SD of PhP7,285.64.

11. The student-respondents "agreed" on their attitude toward schooling being indicated by the grand weighted mean of 3.78.

12. The student-respondents appraised themselves as "frequently" practicing the identified study habits being shown by the grand weighted mean of 3.56.

13. The oldest respondent was registered between 61-65 years old while the youngest was between 21-25 years old whereby the mean age of this group of respondents was registered at 36.08 years old with standard deviation of 10.58 years.

14. Majority of them belonged to the female sex accounting for 29 or 80.56 percent.

15. Majority of them, that is, 21 or 58.33 percent were married.

16. A number of the teacher-respondents, that is, 12 or 33.33 percent were master's degree holders.

17. A number of the teacher-respondents, that is, 17 or 47.22 percent were appointed as Teacher III.

18. The mean family income of the teacher-respondents was posted at PhP51,110.51 with a standard deviation of PhP19,679.98.

19. The mean number of years in teaching by the teacher-respondents was posted at 7.72 years with a standard deviation of 4.92 years.

20. Majority of the teacher-respondents garnered a performance rating with adjectival rating of "very satisfactory" accounting for 34 or 94.44 percent.

21. The overall mean number of IMs used by the teacher-respondents for the first and second quarters was registered at 19 IMs with a standard deviation of 1.18 IMs.

22. A number of the teacher-respondents, that is, 12 or 33.33 percent prepared real objects during the first quarter while a number of them that is, 15 or 41.67 percent prepared real objects, too.

23. The grand mean number of INSET of the teacher-respondents was posted at eight trainings with a SD of 3.63 trainings.

24. The appraisal on the attitude of the teacher-respondents toward teaching obtained a grand weighted mean of 4.43 which indicated that they "agreed" on it.

25. The mean academic achievement of the student-respondents based on the mean grade of the first and second quarters was posted at 81.92 with a SD of 2.19.

26. In associating relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the student-related factors, the following values were calculated: age, not significant; sex, not significant; nutritional

status, not significant; obtained grades, not significant; number of days present in school, not significant; preferred seats, significant; preferred mode of participation, significant; parents' highest educational attainment, not significant; parents' occupation, not significant; gross monthly family income, not significant; attitude toward schooling, not significant; and study habits, not significant.

27. In associating relationship between the academic performance of the student-respondents based on the mean grade of the first and second quarters and the teacher-related factors, the following vales were posted: age, not significant; sex, not significant; civil status, not significant; highest educational attainment, not significant; teaching position, not significant; gross monthly family income, not significant; number of years in teaching, not significant; latest performance rating based on the IPCRF, not significant; number of instructional materials used for the first and second quarters, not significant; types of instructional materials prepared, not significant; number of relevant in-service trainings, significant; and attitude toward teaching, significant.

28. The learning styles of the student-respondents were: visual, frequently practiced; aural, sometimes

practiced; verbal, sometimes practiced; physical, frequently practiced; logical, sometimes practiced; social, sometimes practiced; and solitary, frequently practiced.

29. In the comparison of the learning styles of the student-respondents when grouped according to their personal factors was evaluated as follows: age, not significant; sex, not significant; nutritional status, not significant; obtained grades, significant; number of days in attendance in school, significant; preferred seats in the classroom, significant; preferred mode of participation in the class, significant; parents' highest educational attainment, significant; parents' occupation, significant; gross monthly family income, significant; attitude toward schooling, significant; and study habits, significant.

30. In associating relationship between the perceived learning styles of the student-respondents and their personal-related factors the following were the evaluation: age, significant; sex, not significant; nutritional status, significant; obtained grades, not significant; number of days in attendance in school, significant; preferred seats in the classroom, significant; preferred mode of participation in the class, significant; parents' highest educational attainment, not significant; parents' occupation, not significant; gross monthly family income,

significant; attitude toward schooling, significant; and study habits, significant.

31. In associating relationship the between the learning styles of the student-respondents and the teacher-related factors, the evaluation was: age, not significant; sex, not significant; civil status, not significant; highest educational attainment, not significant; teaching position, not significant; gross monthly family income, not significant; number of years in teaching, not significant; latest performance rating based on the IPCRF, not significant; number of instructional materials used for the first and second quarters, not significant; types of instructional materials prepared, not significant; number of relevant in-service trainings, not significant; and attitude toward teaching, significant.

32. In associating the relationship between the perceived learning styles of the student-respondents and their academic performance based on the mean grade of the first and second quarters the evaluation was significant.

### **Conclusions**

From the findings of the study, the following conclusions were drawn:

1. The student-respondents were in the right age



appropriate to the grade level they were enrolled in. Furthermore, they were at more or less of the same age being shown by their age difference.

2. The female student-respondents outnumbered male ones. But this did not mean that only the female were interested in schooling. Perhaps during the time of visit they were the ones available.

3. Generally, the student-respondents were in good nutritional condition indicating that they are apt to learn being healthy.

4. The student-respondents manifested favorable performance based on obtained grades in English, Science, Mathematics, TLE, and MAPEH along: written work; performance task; and quarterly examinations. From the standard difference it can be understood that their performances were close to each other meaning the manifested similar performances in English, Science, Mathematics, TLE, and MAPEH along: written work; performance task; and quarterly examinations.

5. The student-respondents manifested regularity in attendance in school except during the second semester as manifested by the standard difference.

6. Generally, the student-respondents preferred their seat near the chalkboard which showed interest among them.

Some probably were near-sighted and others preferred it so that they will not miss the lecture and learn more.

7. The student-respondent variedly prefer mode of participation from group to individual and written activities which they considered effective for them to learn.

8. The parents of the student-respondents were schooled indicating that they were functional literates which signified that they, too, aspired that their students would finish also schooling.

9. The parents of the student-respondents had gainful activities which served as the source of their living. Though the mothers were not engaged in gainful activities but being housekeepers they serve a support system of the family by taking of them, which cannot be quantified by a salary.

10. The family of the student-respondent still earned an income lower than the threshold which they used to defray their monthly obligations. However, there was a wide disparity in the income earned across families which manifested that rich families become richer and the poor families become poorer.

11. The students-respondents manifested favorable attitude toward schooling.

12. The student-respondents were interested to learn their lessons in school being shown by their regular study habits.

13. The teacher-respondents were at their late 30's which indicated that they are relatively young, at the prime of their age and at the height of their teaching career. The gap in their ages was standardized at 10.52 years which was obvious based on their age distribution.

14. Majority of the teaching force in the research environment were female indicating that most of this group embraced the career of a teacher so that from then and now it was dubbed as "woman's profession."

15. The teacher-respondents were disaggregated among the three registered civil statuses but the bottom-line is they had the passion as agents of change among the students.

16. The teacher-respondents qualified themselves for the teaching profession in terms of educational requirements, in fact, some of them did not settle as baccalaureate degree holders but they pursued advance education and earned master's degree and pursued further in earning doctoral units. This indicated that they value their career by considering the enhancement of their craft.

17. The teacher-respondents were disaggregated to the different hierarchical positions in the DepEd's organizational structure as approved by the Department of Budget and Management by virtue of the regular charter or due to rationalization. Furthermore, these data proved that some of the teacher-respondents had been promoted already which could be attributed to their pursuit for advance education which qualified them for the position based on the DepEd's qualification standards.

18. The teacher-respondents earned higher income already far above the threshold however a wider disparity in income could be still be observed being indicated by the standard difference.

19. The teacher-respondents had been in teaching profession for quite a longer period of time which suggested that they were able to hone their teaching skills and competences.

20. The teacher-respondents discharged very satisfactorily their sworn in duties and responsibilities despite the several preparations they have under taken that consumed even their rest time.

21. The teacher-respondents utilized several IMs which they used as aids in teaching to be effective with their class instruction during the first and second quarters

indicating that using such was really a necessity more so that contextualization was being implemented by the DepEd.

22. The teacher-respondents exerted efforts to be effective in teaching so that they made it sure that they prepared varied IMs which they could use every time they present a lesson to their students. In the guise of contextualization, the most common IMs they prepared and use were real objects.

23. The teacher-respondents recognized the value of updating themselves with the curricula redirection so that they took opportunities in attending trainings in the different levels when they were warranted to attend one.

24. The teacher-respondents manifested very favorable attitude toward teaching which indicated that they have the passion with their career.

25. The student-respondents manifested favorable academic achievement based on the mean grade of the first and second quarters, more or less their performance was close to each other being shown by the standard difference.

26. Of the student-related factors, only their preferred seat in the classroom and the preferred mode of participation in class posed significant influence to their academic performance. While the other factors proved to have no influence to it.

27. Of the teacher-related factors, only their number of relevant in-service trainings and attitude toward teaching significantly influenced the academic performance of the students. The other factors proved to have no influence to it.

28. The student-respondents frequently practiced the visual, physical, and solitary learning styles while they seldom practice other identified learning styles.

29. The learning styles of the student-respondents were varied depending upon their obtained grades; number of days in attendance in school; preferred seats in the classroom; preferred mode of participation in the class; parents' highest educational attainment; parents' occupation; gross monthly family income; attitude toward schooling; and study habits.

30. Of the student-related factors, age, nutritional status, preferred seats in the classroom, preferred mode of participation in the class, gross monthly family income, attitude toward schooling, and study habits. The other factors posed no influence to it.

31. Of the teacher-related factors, only their attitude toward teaching influenced significantly the learning styles of the students. The other factors proved to have no influence with it.

32. The student-respondents who have frequently practiced learning styles manifested exemplary performance.

### **Recommendations**

Based on the conclusions drawn from the findings of the study, the following are the recommendations:

1. Although the student-respondents manifested satisfactory performance, this should be enhanced to make it very satisfactory focusing on the subject areas of English, Science, Mathematics, TLE, and MAPEH through an intervention.

2. The identified learning styles, namely: visual, physical, and solitary, should be enhanced while the other identified learning styles should be developed. This could be done through an intervention.

3. Synchronize the intervention to be proposed in enhancing and developing the identified learning styles as well as enhancing their academic performance in the five core subjects.

4. Validate the proposed intervention through a try-out within the Central School of Tarangnan for its effectiveness.

5. Another study may be conducted considering other areas on the learning styles of the students.

6. Another study may be conducted to widen its scope.



## Chapter 6

### LEARNING STRATEGIES INTERVENTION PROGRAM

#### Rationale

Some students prefer to learn by themselves in their own pace, in familiar surrounding rather than in groups. Students tend to perceive information differently, such as viewing and listening, reflection and action, to reasoning logically and intuitively and also scrutinizing and visualizing. This has resulted in education institutions paying great detail to students' learning styles to nurture them to be responsible towards their own learning process.

The student-respondents manifested satisfactory performance and this should be enhanced to make it very satisfactory focusing the five (5) core subject areas and also the identified learning styles to be developed.

#### Objectives:

Therefore, the objectives of this study are to:

1. Enhance and develop holistically all learning styles such as: visual, aural, verbal, physical, logical, social, and solitary through intervention program;

2. Improve the academic performance of Grade-6 students in the District of Tarangnan in the five (5) core subjects.

### **Features of the Program**

This intervention programs covers learning strategies which will address problems in learning styles and achieving academic performance particularly in grade 6 students in the district of Tarangnan.

In multi-level instruction, the teacher allows to plan for all students within one lesson, thereby decreasing the necessity for separate programs while allowing the teacher to weave individual goals into the classroom content and instructional strategies. The teacher must consider student learning styles, use questioning methods aimed at different levels of thinking, allow that some students will need adjusted expectations, give students a choice in what method they will use to demonstrate understanding of concepts, accept that these different methods are of equal value and evaluate students based on individual differences

In cooperative/collaborative, this is the practice of assigning a common task to a group of students who work together to accomplish a common goal. In cooperative learning situations, there is a positive interdependence among students' goal attainments; students perceive that

they can reach their learning goals if and only if the other students in the learning group also reach their goals. Such learning requires face-to-face interaction among students, individual accountability for mastering the assigned material, appropriate use of interpersonal and small group skills, and time and procedures for processing (analyzing) the effectiveness of a group.

In addition, cooperative learning teaches students to interact with, learn from, and value others of varying ability levels, interests, talents and personalities.

In Brain-based Instruction, it draws on recent findings in neuro-scientific and cognitive research which provide new insight into the ways the brain is best and biologically designed to learn. While brain research cannot tell educators specifically what to do in a classroom, it does have implications for how teachers educate children.

In Accelerated Learning Techniques, this approach is based on the assertion that no learning can take place without memory. Things are best encoded into memory by creating concrete images of sights, sounds and feelings, and by strong association of one image with another. A specific learning pattern is recommended for factual recall. Other accelerated learning techniques include chunking and the use of music and rhyme as aids to memory;

peripheral learning and the use of memory "maps" to encourage association are also used to improve recall.

In Active Learning, students are given ample opportunities to -experiment actively and directly and to apply concepts and skills as they are taught through the experiences of daily life. The range of active learning experiences includes games, simulations, product making, role-playing, creative dramatics, pantomime, contests, use of manipulatives and tactile materials.

In Thematic or Interdisciplinary Instruction, this approach helps students connect what they learn from one subject to another and to discover relationships. Interdisciplinary projects promote thinking strategies that cross content areas and transfer into real-life application.

In Computer-assisted Learning Programs, these allow for computer-directed assessment, learning, and evaluation of student progress. The programs usually offer a management component to keep track of each individual learner's program and results, as well as curriculum. Computer-assisted learning programs are attractive for intervention programs because they feature individualized assessment, instruction, practice and testing that allow learners to fill the "missing gaps" in their learning in

various subjects or areas of study. It must be emphasized that computer-assisted learning programs (as with all educational software) are tools for learning. They cannot replace teachers. The best use of computer assisted learning programs involves close interaction between the teacher and student in order to ensure optimal appropriate use of the programs.

In Tutoring, it is a type of intervention usually provided on a one-to-one ratio, or in small groups. The tutor usually models or follows the methodology and content of the original instruction.

<b>Implementation Phase</b>	<b>Activities</b>	<b>Time Frame</b>	<b>Approaches/Strategies</b>
Daily/According to the needs of individual students	Learning Styles	School Year-round	<ul style="list-style-type: none"> <li>- create an environment that will reduce stress and will maximize learning</li> <li>- identify students' learning styles that will involve an examination of their preferences with respect to instructional styles, learning environment, thinking styles, and expression or output style.</li> </ul>

	Multi-level Instruction		<ul style="list-style-type: none"> <li>- one lesson will be taught to the whole class</li> <li>- plan for all students within one lesson, thereby decreasing the necessity for separate programs</li> <li>- allows the teacher to weave individual goals into the classroom content and instructional strategies</li> <li>- develops a unit or a lesson that is truly multi-level</li> </ul>
	Differentiated Curriculum		<ul style="list-style-type: none"> <li>- modifies the content, process and/or product of the prescribed curriculum to accommodate variations in students' learning styles, preferences, characteristics, multiple intelligences, talents, strengths and needs</li> </ul>
	Cooperative/ Collaborative		<ul style="list-style-type: none"> <li>- assigns a common task to a group of students who work together to accomplish a common goal</li> <li>- teaches students to interact with, learn from, and value others of varying ability levels, interests, talents and</li> </ul>

			personalities
	Application of Multiple Intelligences Theory		<ul style="list-style-type: none"> <li>- recognizes and rewards those students who show strengths in verbal/linguistic and logical/mathematical intelligences</li> <li>- develops previously unrecognized talents and abilities related to the other intelligences</li> </ul>
	Brain-based Instruction		<ul style="list-style-type: none"> <li>- provides new insight into the ways the brain is best and biologically designed to learn</li> </ul>
	Accelerated Learning Techniques		<ul style="list-style-type: none"> <li>- creates concrete images of sights, sounds and feelings, and by strong association of one image with another</li> <li>- chunking and the use of music and rhyme as aids to memory; peripheral learning and the use of memory "maps" to encourage association are also used to improve recall</li> </ul>
	Active Learning		<ul style="list-style-type: none"> <li>- gives ample opportunities to - experiment actively and directly</li> <li>- applies concepts and skills as they</li> </ul>

			<p>are taught through the experiences of daily life</p> <ul style="list-style-type: none"> <li>-active learning experiences includes games, simulations, product making, role-playing, creative dramatics, pantomime, contests, use of manipulatives and tactile materials</li> </ul>
	Thematic or Interdisciplinary Instruction		<ul style="list-style-type: none"> <li>-helps students connect what they learn from one subject to another and to discover relationships</li> <li>-Interdisciplinary projects promote thinking strategies that cross content areas and transfer into real-life application.</li> </ul>
	Computer-assisted learning programs		<ul style="list-style-type: none"> <li>-allows for computer-directed assessment, learning, and evaluation of student progress</li> <li>-offers a management component to keep track of each individual learner's program and results, as well as curriculum</li> <li>-allows learners to fill the "missing gaps" in their learning in</li> </ul>



			various subjects or areas of study through individualized assessment, instruction, practice and testing
	Tutoring		-models or follows the methodology and content of the original instruction usually provided on a one-to-one ratio, or in small groups

### **Strategy of Implementation**

In the implementation phase, it must be done yearly and according to the needs of individual students involving varied activities, approaches, as well as strategies that would help them develop and enhance their learning styles and academic performance.

### **Monitoring and Evaluation**

The school administrators will spearhead in the supervision of monitoring and evaluation of the learning strategy intervention program to guarantee that students with difficulty in learning will be addressed. A monitoring and evaluation tool similar to checklist may be used which will indicate learning strategies that teacher employed

with number of students before the applied learning strategy and number of students after the applied learning strategy. This could also be justified by the school administrators by observing students during teaching and learning process.

Feedback mechanism may be employed to solicit information from the administrators, teachers, parents and students in order to enrich the implementation of the learning strategy intervention program.

### **Budgetary Requirements**

In the implementation of this action plan, the following budgetary requirements will be entailed:

Supplies and Materials . . . . .	PhP 15,000.00
Meals and Snacks during	
orientation and planning . . . . .	25,000.00
Other Incidental Expenses . . . . .	10,000.00
	-----
Total . . . . .	PhP 50,000.00
	=====

### **Funding Source**

Funding for this action plan may come from the following sources:

1. General PTA or Homeroom PTA funds;
2. Proceeds from an income generating project launched by the school; and

3. Voluntary support and donations form the LGU and/or NGO's such as the PLAN Philippines.

## B I B L I O G R A P H Y

### A. BOOKS

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Hattie, et.al, "Effects of Learning Skills Interventions on Student Learning: A Meta-Analysis," Research Report, University of North Carolina, United States, 1996.

#### **D. ELECTRONIC AND OTHER SOURCES**

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<https://www.learning-styles-online.com/style/aural-auditory-musical//>

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[https://en.wikipedia.org/wiki/kinesthetic\\_learning//](https://en.wikipedia.org/wiki/kinesthetic_learning//)

<https://www.learning-styles-online.com/style/social-interpersonal//>

<https://www.learning-styles-online.com/style/solitary-intrapersonal//>

<https://www.learning-styles-online.com/style/verbal-linguistic//>

<https://info.lse.ac.uk/staff/divisions/Teaching-and-Learning-Centre/Assets/Documents/Using-class-participation-to-develop-student-engagement>

<https://www.learning-styles-online.com/style/visual-spatial//>

<https://www.merriam-webster.com/dictionary/intervention>  
wordnet.princeton.edu

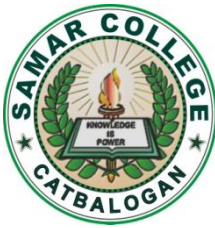
[https://en.wikipedia.org/wiki/Instructional\\_materials](https://en.wikipedia.org/wiki/Instructional_materials),

## A P P E N D I C E S



# APPENDIX A

## REQUEST FOR APPROVAL OF RESEARCH TITLE



Republic of the Philippines  
Commission on Higher Education  
Region VIII  
*Samar College*  
**COLLEGE OF GRADUATE STUDIES**  
City of Catbalogan

May 12, 2017

**Dr. NIMFA T. TORREMORO**

Dean, College of Graduate Studies  
Samar College  
City of Catbalogan

**M a d a m e:**

The undersigned will enroll in thesis writing this 1<sup>st</sup> Semester, 2017. In this regard, he would like to present the following proposed thesis titles, preferably Number 1, for your evaluation, suggestions and recommendation.

1. Learning Styles and Academic Performance of Grade 6 Students in the District of Tarangnan: Basis for an Intervention Program
2. Levels of Bullying as Related to Personal and Family Characteristic of Grade VI Pupils in the District of Tarangnan: As Basis for a Family School-Based Support
3. Leadership Style of School Heads and Job Satisfaction of Teachers in the District of Tarangnan

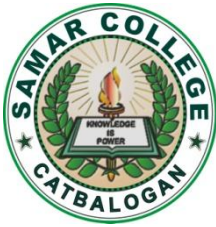
**(SGD.) ARVIE M. PACLE**  
Researcher

**Recommended Title No.**

- # 1 (SGD.) GUILLERMO D. LAGBO, DPA  
Evaluator
- # 1 (SGD.) PEDRITO G. PADILLA, Ph. D.  
Evaluator
- # 1 (SGD.) NATALIA B. UY, Ph. D.  
Evaluator

**Approved Title No.: # 1**

**(SGD.) NIMFA T. TORREMORO, Ph. D.**  
Dean, College of Graduate Studies

**APPENDIX B**

Republic of the Philippines  
 Commission on Higher Education  
 Region VIII  
*Samar College*  
**COLLEGE OF GRADUATE STUDIES**  
 City of Catbalogan

**ASSIGNMENT OF ADVISER**

**NAME** : ARVIE M. PACLE

**COURSE** : Master of Arts in Education

**SPECIALIZATION** : Educational Management

**TITLE OF THESIS PROPOSAL** : Learning Styles and Academic  
 Performance of Grade 6 Students  
 in the District of Tarangnan:  
 Basis for an Intervention  
 Program

**NAME OF ADVISER** : Guillermo D. Lagbo, DPA

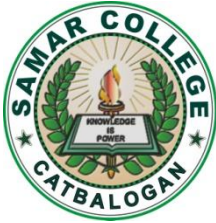
**(SGD.) ARVIE M. PACLE**  
 Researcher

**CONFORME:**

**(SGD.) GUILLERMO D. LAGBO, DPA**  
 Adviser

**APPROVED:**

**(SGD.) NIMFA T. TORREMORO, Ph. D.**  
 Dean, College of Graduate Studies

**APPENDIX C****QUESTIONNAIRE  
(For Student-Respondent)**

Republic of the Philippines  
Commission on Higher Education  
Region VIII  
*Samar College*  
**COLLEGE OF GRADUATE STUDIES**  
City of Catbalogan

January 15, 2018

**Dear Respondent,**

The undersigned is currently conducting a study entitled, "Learning Styles and Academic Performance of Grade 6 Students in the District of Tarangnan: Basis for an Intervention Program", as one of the requirements for the degree, Master of Arts in Education (MAEd) major in Educational Management with the College of Graduate Studies of Samar College, City of Catbalogan.

As potent source of information, the undersigned requests your cooperation in answering the attached questionnaire.

Rest assured that any information given in this questionnaire will be held in strict confidentiality and shall be used solely for the purpose of this study.

Thank you very much for the usual cooperation.

Very truly yours,

**(SGD.) ARVIE M. PACLE**  
Researcher

**QUESTIONNAIRE**  
**(For Student-Respondent)**

**PART I. PROFILE OF RESPONDENT**

**Direction:** Kindly supply the information asked for by writing on the space provided or by checking appropriate box.

1. Name (optional): \_\_\_\_\_

2. Age: \_\_\_\_\_

3. Sex: ☐ Male ☐ Female

4. Nutritional Status: ☐ Normal ☐ Severely Wasted

☐ Wasted ☐ Obese

5. Number of Attendance  
in School:

1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	Total

6. Preferred Seat in the Classroom:

- ☐ Near the Chalkboard
- ☐ Middle of the Array of Seats
- ☐ Far the Chalkboard
- ☐ Left Side of the Array of Seats
- ☐ Right Side of the Array of Seats
- ☐ Near the door
- ☐ Near the Windows

7. Preferred Mode of Participation in the Class:

- ☐ Group Activity ☐ Written
- ☐ Individual Activity ☐ Oral
- ☐ Both, Group and Individual Activity

## 8. Parents' Highest Educational Attainment:

<u>Father</u>		<u>Mother</u>
<input type="checkbox"/>	Post Graduate	<input type="checkbox"/>
<input type="checkbox"/>	College Graduate	<input type="checkbox"/>
<input type="checkbox"/>	College Level	<input type="checkbox"/>
<input type="checkbox"/>	Techno-Vocational	<input type="checkbox"/>
<input type="checkbox"/>	High School Graduate	<input type="checkbox"/>
<input type="checkbox"/>	High School Level	<input type="checkbox"/>
<input type="checkbox"/>	Elementary Graduate	<input type="checkbox"/>
<input type="checkbox"/>	Elementary Level	<input type="checkbox"/>
<input type="checkbox"/>	No Schooling	<input type="checkbox"/>

## 9. Parents' Occupation:

Father: \_\_\_\_\_

Mother: \_\_\_\_\_

## 10. Gross Monthly Family Income:

☐ Less than P10,000                      ☐ P50,000-P69,999

☐ P10,000-P29,999                      P70,000-P99,999

☐ P30,000-P49,999                      P100,000 and over

## 11. Obtained Grades:

Subject Area	Written Work		Performance Task		Quarterly Exam	
	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr
English						
Science						
Mathematics						
Subject Area	Written Work		Performance Task		Quarterly Exam	
	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr
TLE						
MAPEH						

**PART II. ATTITUDE TOWARD SCHOOLING**

**Direction:** Below are attitude statements toward schooling. Kindly assess each statement and signify your agreement or disagreement by checking appropriate column using the following scale:

- 5 - Strongly Agree (SA)  
 4 - Agree (A)  
 3 - Uncertain (U)  
 2 - Disagree (D)  
 1 - Strongly Disagree (SD)

Attitude Statement	5	4	3	2	1
	(SA)	(A)	(U)	(D)	(SD)
1. Most of my teachers seem to care about me as a person.					
2. My teachers demand too much work from me.					
3. Getting a good education is important to me.					
4. The main purpose of education is to help me find a good job.					
5. I work harder in school than do most students.					
6. I do only enough work in school to get by.					
7. School has encouraged me to think for myself.					
8. I look forward to going to most of my classes.					
9. I should spend more time studying.					
10. If my teachers demanded more, I would probably work harder.					
11. I feel that I could discuss personal problems with most of my teachers.					
12. I am reluctant to participate in most class discussions.					
13. I sometimes ask answer from my seatmates during tests.					
14. My teachers seem to enjoy teaching.					
15. I would consider teaching as a career.					
16. I am more concerned with getting good grades than with how much I learn.					
17. I try to please my teachers.					
18. My school is a safe place.					

19. School encourages me to be creative.					
--	--	--	--	--	--

### PART III. STUDY HABITS

**Direction:** Below are study habits of students. Kindly assess each habit by checking the appropriate column using the following scale:

- 5 - Always (A)  
 4 - Frequently (F)  
 3 - Sometimes (S)  
 2 - Rarely (R)  
 1 - Never (N)

Study Habit	5 (A)	4 (F)	3 (S)	2 (R)	1 (N)
<b>A. Time Management</b>					
1. I make a master schedule for every grading period.					
2. I update my master schedule weekly/daily.					
3. I stick to my master schedule.					
4. I allow time for exercise and socializing with friends.					
5. I get at least 6 hours of sleep each night.					
6. I study at least 2 hours for every subject.					
7. I get my assignments done on time.					
8. I regularly attend my classes.					
<b>B. Study Environment</b>					
1. I have an area where I always go to study.					
2. My study area is free from noise and distractions.					
3. I have all my supplies near me when I study.					
4. My area is comfortable.					
5. I let my friend leave me alone when I want to study.					
6. I prefer to study at the same time watching TV.					
7. I prefer to study in the environment with music.					
<b>C. Test Preparation</b>					
1. I study for each class every					

day.					
2. I start reviewing for major exams at under time management.					
3. I join a study group.					
4. I attend extra help sessions or class hours provided by the teacher.					
5. I engage in drill and practice particularly on the possible type of tests (essay, multiple choice, etc.).					
6. I do read my lecture notes when I study.					
7. I prepare my books, lecture notes, and other materials that I can use during my review/study.					
<b>D. Note Taking Skills</b>					
1. I take notes in class, keep up with the teacher, and understand the concepts at the same time.					
2. I devise an efficient system of note taking.					
3. I do library work before I study.					
4. I can determine "important stuff" to take note and the cues to consider it as an important stuff.					
5. In addition to highlighting, I make notes as I read class materials.					
6. I put class notes or notes from texts into my own words.					

#### PART IV. LEARNING STYLES

**Direction:** Below are indicators related to learning styles which may be adopted by students. Kindly assess each indicator by checking appropriate column using the following scale:

- 5 - Always Practiced (AP)
- 4 - Frequently Practiced (FP)
- 3 - Rarely Practiced (RP)
- 2 - Seldom Practiced (SP)



## 1 - Not Practiced

(NP)

Indicator	5	4	3	2	1
	(AP)	(FP)	(RP)	(SP)	(NP)
1. I am a tinkerer. I like pulling things apart, and I usually go back together OK. I can easily follow instructions represented in diagrams.					
2. I have a personal or private interest or hobby that I like to do alone.					
3. I keep a journal or personal diary to record my thoughts.					
4. I use rhythm or rhyme to remember things, e.g. phone numbers, passwords, other little sayings.					
5. I like logic games and brainteasers. I like chess and other strategy games.					
6. Music evokes strong emotions and images as I listen to it. Music is prominent in my recall of memories.					
7. I put together itineraries and agendas for travel. I put together detailed lists, such as to-do lists, and I number and prioritize them.					
8. I communicate well with others and often act as a mediator between them.					
9. In school I like/liked wood or metal working, craft, sculpture, pottery.					
10. I like getting out of the house and being with others at parties and other social events.					
11. I think independently. I know how I think and I make up my own mind. I understand my own strengths and weaknesses.					
12. Jingles, themes or parts of songs pop into my head at random.					
13. I love sport and exercise.					
14. I have a great vocabulary, and like using the right word at the right time.					

15. I occasionally realize I am tapping in time to music, or I naturally start to hum or whistle a tune. Even after only hearing a tune a few times, I can remember it.					
16. I like gardening or working with your hands in the shed out the back.					
17. Mathematics and sciences were my preferred subjects at school.					
18. I like to listen. People like to talk to me because they feel I understand them.					
19. I like the texture and feel of clothes, furniture and other objects.					
20. I solve problems by "thinking aloud" - talking through issues, questions, possible solutions etc.					
21. I like visual arts, painting, sculpture. I like jigsaws and mazes.					
22. I am happy in my own company. I like to some things alone and away from others.					
23. I like listening to music - in the car, studying, at work (if possible!).					
24. I would prefer to holiday on a deserted island rather than a resort or cruise ship with lots of other people around.					
25. I enjoy dancing.					
26. I prefer to work for myself - or I have thought a lot about it.					
27. I use a specific step-by-step process to work out problems.					
28. I enjoy learning in classroom style surroundings with other people. I enjoy the interaction to help my learning.					
29. I can balance a check book, and I like to set budgets and other numerical goals.					
30. I like books with lots of diagrams or illustrations.					

31. I don't like the sound of silence. I would prefer to have some background music or other noises over silence.					
32. I like to read everything. Books, newspapers, magazines, menus, signs, the milk carton etc.					
33. I have a number of very close friends.					
34. I easily express yourself, whether its verbal or written. I can give clear explanations to others.					
35. I am overly sensitive to activities that involve physical movement. For example, I might love the theme park rides that involve lots of physical action, or I hate them because of the effect the physical forces have on my body.					
36. I can easily visualize objects, buildings, situations etc. from plans or descriptions.					
37. I use lots of hand gestures or other physical body language when communicating with others.					
38. I like playing games with others, such as cards and board games.					
39. I draw well, and find myself drawing or doodling on a notepad when thinking.					
40. I am goal oriented and know the directions you are going.					
41. English, languages and literature were favorite subjects at school.					
42. I use specific examples and references to support my points of view.					
43. I easily work with numbers, and can do decent calculations in my head.					
44. I prefer team games and sports such as football/soccer, basketball,					

netball, volleyball etc.					
45. I like making models, or working out jigsaws.					
46. I pay attention to the sounds of various things. I can tell the difference between instruments, or cars, or aircraft, based on their sound.					
47. I use diagrams and scribbles to communicate ideas and concepts. I love whiteboards (and color pens).					
48. I navigate well and use maps with ease. I rarely get lost. I have a good sense of direction. I usually know which way North is.					
49. I prefer to talk over problems, issues, or ideas with others, rather than working on them by myself.					
50. I have a good sense of color.					
51. I hear small things that others do not.					
52. I prefer to study or work alone.					
53. Music was my favorite subject at school.					
54. I like making puns, saying tongue-twisters, making rhymes.					
55. I would prefer to physically touch or handle something to understand how it works.					
56. I like being a mentor or guide for others.					
57. In school I preferred art, technical drawing, geometry.					
58. I like to think out ideas, problems, or issues while doing something physical.					
59. I am OK with taking the lead and showing others the way ahead.					
60. I spend time alone to reflect and think about important aspects of my life.					
61. I love telling stories, metaphors or anecdotes.					
62. I read self-help books, or					

have been to self-help workshops or done similar work to learn more about myself.					
63. I easily absorb information through reading, audiocassettes or lectures. The actual words come back to me easily.					
64. In regular conversation I frequently use references to other things I have heard or read.					
65. I like identifying logic flaws in other people's words and actions.					
66. I can play a musical instrument or I can sing on (or close to) key.					
67. I like to understand how and why things work. I keep up to date with Science and Technology.					
68. I enjoy finding relationships between numbers and objects. I like to categorize or group things to help me understand the relationships between them.					
69. I like using a camera or video camera to capture the world around me.					
70. I like crosswords, play scrabble and word games.					

**Thank You . . .**

**The Researcher**

**APPENDIX D**

**QUESTIONNAIRE  
(For Teacher-Respondent)**



Republic of the Philippines  
Commission on Higher Education  
Region VIII  
*Samar College*  
**COLLEGE OF GRADUATE STUDIES**  
City of Catbalogan

January 15, 2018

**Dear Respondent,**

The undersigned is currently conducting a study entitled, "Learning Styles Academic Performance of Grade 6 Students in the District of Tarangnan: Basis for an Intervention Program", as one of the requirements for the degree, Master of Arts in Education (MAEd) major in Educational Management with the College of Graduate Studies of Samar College, City of Catbalogan.

As potent source of information, the undersigned requests your cooperation in answering the attached questionnaire.

Rest assured that any information given in this questionnaire will be held in strict confidentiality and shall be used solely for the purpose of this study.

Thank you very much for the usual cooperation.

Very truly yours,

**(SGD.) ARVIE M. PACLE**  
Researcher

**QUESTIONNAIRE**  
**(For Teacher-Respondent)**

**PART I. PROFILE OF RESPONDENT**

**Direction:** Kindly supply the information asked for by writing in the space provided or by checking appropriate box.

1. Name (optional): \_\_\_\_\_

2. Age: \_\_\_\_\_ 3. Sex: ☐ Male ☐ Female

4. Civil Status:      Single ☐      Living ☐  
                                  ☐ Married      ☐ Annulled  
                                  ☐ Widowed      ☐ Separated

5. Highest Educational Attainment:      ☐ Doctorate Degree  
    ☐ Doctoral Units  
    ☐ Master's Degree  
    ☐ Masteral Units  
    ☐ Baccalaureate Degree

6. Teaching Position:      ☐ Teacher I  
    ☐ Teacher II  
    ☐ Teacher III  
    ☐ Master Teacher

7. Gross Monthly Family Income:  
                                  ☐ Less than P10,000      ☐ P50,000-P69,999  
                                  ☐ P10,000-P29,999      P70,000-P99,999  
                                  ☐ P30,000-P49,999      P100,000 and over

8. Number of Years in Teaching: \_\_\_\_\_

9. Latest Performance Rating Based on the IPCRF:

Numerical: \_\_\_\_\_

Adjectival: \_\_\_\_\_

10. Number of Instructional Materials Used: \_\_\_\_\_

11. Types of Instructional Materials Prepared:

\_\_\_\_\_

\_\_\_\_\_

(If more than two kinds of IMs, kindly add additional sheet)

10. Number of Relevant In-Service Trainings (for the past five school years):

Training Level	Number of Trainings				
	SY 2016-2017	SY 2015-2016	SY 2014-2015	SY 2013-2014	SY 2012-2013
International					
National					
Regional					
Division					
District					

## PART II. ATTITUDE TOWARD TEACHING

**Direction:** Below are attitude statements toward teaching. Kindly assess each statement and signify your agreement or disagreement by checking appropriate column using the following scale:

- 5 - Strongly Agree (SA)  
 4 - Agree (A)  
 3 - Uncertain (U)  
 2 - Disagree (D)  
 1 - Strongly Disagree (SD)

Attitude Statement	5	4	3	2	1
	(SA)	(A)	(U)	(D)	(SD)
1. For the most part, teaching has been a pleasant experience.					
2. Most of my students seem to care about me as a person.					
3. The main purpose of education is to help my students find a good future.					
4. I work harder in school than					



most of my co-teachers.					
5. I do only enough work in school to get by.					
6. I should spend more time teaching.					
7. I seem to enjoy teaching.					
8. Teaching encourages me to be creative.					
9. I would consider teaching as my best chosen career.					
10. I try to please my students.					

**Thank You . . .**

**The Researcher**

**APPENDIX E****LETTER FOR PRE-ORAL DEFENSE**

Republic of the Philippines  
 Commission on Higher Education  
 Region VIII  
*Samar College*  
**COLLEGE OF GRADUATE STUDIES**  
 City of Catbalogan

January 8, 2018

**NIMFA T. TORREMORO, Ph.D.**  
 Dean, College of Graduate Studies  
 Samar College, Catbalogan City

Madame:

I have the honor to request that I be scheduled on January 14, 2018 to have my pre-oral defense with the thesis entitled, "**LEARNING STYLES AND ACADEMIC PERFORMANCE OF GRADE 6 STUDENTS IN THE DISTRICT OF TARANGNAN: BASIS FOR AN INTERVENTION PROGRAM**".

In this connection, I am submitting herewith seven copies of my thesis proposal for distribution to my adviser, the chairman and the members of the panel of oral examination.

I hope for your early and favorable action on this request.

Very truly yours,

**(SGD.) ARVIE M. PACLE**  
 Researcher

Recommending Approval:

**(SGD.) GUILLERMO D. LAGBO, DPA**  
 Adviser

**APPROVED:**

**(SGD.) NIMFA T. TORREMORO, Ph. D.**  
 Dean, College of Graduate Studies

Republic of the Philippines  
 Commission on Higher Education  
 Region VIII  
*Samar College*  
**COLLEGE OF GRADUATE STUDIES**  
 City of Catbalogan

January 22, 2018

**MARIZA S. MAGAN, Ph.D. CESO V**  
 Schools Division Superintendent  
 Schools Division of Samar  
 Catbalogan City, Samar

Madame:

Greetings!

The undersigned would like to seek permission from your good office to conduct study on his Master's Thesis entitled, **"LEARNING STYLES AND ACADEMIC PERFORMANCE OF GRADE 6 STUDENTS IN THE DISTRICT OF TARANGNAN: BASIS FOR AN INTERVENTION PROGRAM"**.

The target respondents of the said study in which questionnaire will be fielded are the 33 elementary schools of Tarangnan District. All of the Grade 6 teachers and students are the respondents of the study. With this, the researcher will pledge one copy of this study to your good office.

Thank you in anticipation for a favorable consideration. More power and God Bless.

Respectfully yours,

**(SGD.) ARVIE M. PACLE**  
 Teacher-Researcher

Recommending Approval:

**(SGD.) GUILLERMO D. LAGBO, DPA**  
 Adviser

**(SGD.) NIMFA T. TORREMORO, Ph. D.**  
 Dean, College of Graduate Studies

APPROVED:

**(SGD.) MARIZA S. MAGAN, Ph.D., CESO V**  
 Schools Division Superintendent

**Letter-Request for Permission to the School Administrator to  
Field Questionnaires**

Republic of the Philippines  
Commission on Higher Education  
Region VIII  
*Samar College*  
**COLLEGE OF GRADUATE STUDIES**  
City of Catbalogan

January 22, 2018

**ROLANDO P. VIEJA**  
District Supervisor  
District of Tarangnan

Sir:

Greetings!

The undersigned is currently conducting a study on his Master's Thesis entitled, "**LEARNING STYLES AND ACADEMIC PERFORMANCE OF GRADE 6 STUDENTS IN THE DISTRICT OF TARANGNAN: BASIS FOR AN INTERVENTION PROGRAM**".

In view thereof, he would like to ask permission from your good office that he be allowed to field his questionnaires to all of your faculty members.

Thank you in anticipation for a favorable consideration.  
More power and God bless.

Respectfully yours,

(SGD.) **ARVIE M. PACLE**  
Teacher-Researcher

Recommending Approval:

(SGD.) **GUILLERMO D. LAGBO, DPA**  
Adviser

(SGD.) **NIMFA T. TORREMORO, Ph. D.**  
Dean, College of Graduate Studies

APPROVED:

(SGD.) **ROLANDO P. VIEJA**  
District Supervisor

C U R R I C U L U M      V I T A E

**NAME** : ARVIE MACABENTA PACLE  
**HOME ADDRESS** : Purok 4, Brgy. Tigdaranao  
 Tarangnan, Samar  
**BIRTH DATE** : April 15, 1989  
**BIRTH PLACE** : Tarangnan, Samar  
**CIVIL STATUS** : Married  
**PRESENT POSITION** : Elementary Grade Teacher III  
**STATION** : Tigdaranao Elementary School  
 District of Tarangnan  
 Division of Samar  
**DEGREE PURSUED** : Master of Arts in Education  
 (MAEd)  
**SPECIALIZATION** : Educational Management

#### **EDUCATIONAL BACKGROUND**

**ELEMENTARY** : Tigdaranao Elementary School  
 Tarangnan, Samar  
 1995 - 2001  
**SECONDARY** : Tarangnan National High  
 School  
 Tarangnan, Samar  
 2001 - 2005  
**TERTIARY** : Bachelor of Elementary  
 Education  
 Samar College  
 City of Catbalogan  
 2005 - 2009  
**GRADUATE STUDIES** : Samar College  
 City of Catbalogan  
 2012 - Present

### **ELIGIBILITY**

Certificate of Eligibility  
for Honor Graduate : March 20, 2009, Samar College  
City of Catbalogan

Licensure Examination for  
Teachers (LET) : 75.80, March 1, 2012  
Tacloban City

### **HONOR/AWARD/RECOGNITION**

With Honors : Tigdaranao Elementary School  
Tarangnan, Samar  
March 2001

With Honors : Tarangnan National High  
School  
Tarangnan, Samar  
March 2005

Cum Laude : Samar College  
City of Catbalogan  
March 2009

### **WORK EXPERIENCE**

Elementary Grade  
Teacher I : Samar College Elementary  
Department  
City of Catbalogan  
June 8, 2009 - May 20, 2013

Elementary Grade  
Teacher I : Tigdaranao Elementary School  
District of Tarangnan  
Division of Samar  
May 20, 2013 - June 19, 2015

Elementary Grade  
Teacher III : Tigdaranao Elementary School  
District of Tarangnan  
Division of Samar  
June 22, 2015 - present

### **MEMBERSHIP IN ORGANIZATION**

President : Tigdaranao Elementary School Alumni Association

President : Sepak Takraw Junior Association

Unit Leader : Boy Scouts of the Philippines Samar Council

### **SEMINARS/TRAININGS/WORKSHOPS ATTENDED**

Job Orientation/Seminar of Newly Hired Teachers conducted by the Department of Education, Division of Samar on January 16-18, 2014.

District Orientation-Workshop on Result-Based Performance Management System conducted by the Department of Education, Division of Samar on June 28, 2014.

Division Training of Trainers on the Physical Fitness and Sports Talent Test conducted by the Department of Education, Division of Samar on September 25-27, 2014.

District In-Service Training Workshop on Test Item Construction, Music & Arts in the K to 12 Curriculum & PFSTT conducted by the Department of Education, Division of Samar on October 21-24, 2014.

Division Training Workshop on LIS Updating, Data Generation and Utilization conducted by the Department of Education, Division of Samar on May 8, 2015.

Division District-Based Teachers' Meeting (K to 12) Senior High School Advocacy, DsMEA and RPMS conducted by the Department of Education, Division of Samar on May 14-15, 2015.

Conference to Address DepEd Computerization Program, Internet Connectivity and ICT Related Concerns and Issues conducted by the Department of Education, Division of Samar on May 20, 2015.



Division Training-Workshop on LIS for Beginning of School Year 2015-2016 conducted by the Department of Education, Division of Samar on June 25, 2015.

Training-Workshop for Sustainability Measures for DCP Packages conducted by the Department of Education, Division of Samar on September 16-17, 2015.

Division Roll-Out of the Enhanced School Improvement Plan (E-SIP) Batch 5 conducted by the Department of Education, Division of Samar on November 26-28, 2015.

School Learning Action Cell (SLAC) on Early Language, Literacy, and Numeracy Program conducted by the Department of Education, Division of Samar on April 25-27, 2016.

School Learning Action Cell (SLAC) on Early Language, Literacy, and Numeracy Program conducted by the Department of Education, Division of Samar on May 16-20, 2016.

Training on Data Collection of Basic Education Statistics in EBEIS & LIS for Beginning of School Year conducted by the Department of Education, Division of Samar on August 20, 2016.

Division Campus Journalism Enhancement Training of School Paper Advisers conducted by the Department of Education, Division of Samar on September 2-4, 2016.

Division Training on Coaching and Officiating of School Sports conducted by the Department of Education, Division of Samar on October 21-23, 2016.

Three-Day ICT Literacy Training of Trainers conducted by the Department of Education, Division of Samar on November 13-15, 2016.

Three-Day Orientation-Workshop on the Implementation of Project E-Kultura conducted by the Department of Education, Division of Samar on December 12-14, 2016.

Three-Day District Echo Training-Workshop on ICT Literacy conducted by the Department of Education, Division of Samar on January 4-6, 2017.

Five-Day Training on Managing K to 12 Cum Contextualization & Test Item Bank Development conducted by the Department of Education, Division of Samar on April 24-28, 2017.

Grade 6 Mass Training of Teachers for the K to 12 Basic Education Program conducted by the Department of Education, Division of Samar on June 11-17, 2017.

Division Orientation to School ICT Coordinators on the Collection of Basic Education Statistics in the SY 2017-2018 Learner Information System (LIS) Beginning of School Year (BoSY) conducted by the Department of Education, Division of Samar on August 4, 2017.

Division Training on Coaching and Officiating of Different Sports Events for the Beginners conducted by the Department of Education, Division of Samar on September 8-10, 2017.

3-Day Live-Out Training Workshop on the Finalization & Enhancement of School Banner Projects conducted by the Department of Education, Division of Samar on October 6-8, 2017.