RELATIONSHIP OF MULTIPLE INTELLIGENCES AND ACADEMIC PERFORMANCE OF GRADE SIX LEARNERS AT SAN ROQUE ELEMENTARY SCHOOL, SAN LUIS PAMPANGA

Lovely C. Diaz and Aira S. Quintos

Abstract

This study aimed to analyze the relationship of multiple intelligences to academic performance of grade six learners at San Roque Elementary School, San Luis Pampanga. The researchers administered the survey questionnaire adapted from the research of Armstrong (2000). The survey included questions on the (1) respondents' profile such as gender and socio-economic status; (2) the respondents' multiple intelligences in terms of: a) Verbal-Linguistic; b) Logical-Mathematical c) Spatial-Visual d) Bodily-kinesthetic e) Musical; f) Intrapersonal; g) Interpersonal; h) Naturalistic; i) Existential; (3) the academic performance of the respondents; and (4) the relationship between the type of multiple intelligences and academic performance of respondents. Based on the findings of this study, there is a significant relationship between Multiple Intelligences and Academic Performance. Therefore, it is suggested that future researchers need to conduct the same concept of the study but of different grade level or in other schools.

Keywords: Multiple intelligences, Academic performance

Introduction

In an ideal world, every student would learn the same content in exactly the same way. Teachers could teach a lesson once and all students would learn and understand the concept before moving on to the next topic of the day. Unfortunately, students are not like this today; rather, each student has their own preferred way of learning. Therefore, it is increasingly important for teachers, especially in the elementary grades, to differentiate their classroom instruction using different methods and materials to teach each lesson (Stanford, 2003). Students in the elementary grades vary greatly, and if teachers want to maximize their students' individual potential, they will have to attend to their differences. If this is not done, students may become frustrated, confused, and unwilling to participate in the learning process. Thus, a select group of students may not be successful in school (Tomlinson, 2001).

Teaching would be much easier, and achieving significant educational attainments would be simpler, if everyone learned in the same way. Nowadays, in our school there is a growing diversity of students with different social, economic and cultural background and this fact produces diverse ways of thinking, learning and behaving.

According to Freedman (2015), it is very likely to find learners with different kinds of abilities or disabilities in the same classroom. Even students with the same background perceive and process information differently. As a result, school systems that rely primarily on teaching through the spoken and written word no longer reach all students.

In fact, people do not take information in the same way. Some students can learn effectively by listening and they are better off in a traditional classroom setting where information is mainly presented orally. On the other hand, students who demonstrate a visual learning style prefer the use of illustrations, chart, or diagrams. Kinesthetic students need to manipulate ideas and abstraction in their hands for them to fully understand. Further, there are some students that follow directions easily and they think in a more linear, sequential, detail-oriented way and some others need to see the whole picture before they can attend to the details.

Levy (2008) posits that teaching in the twenty-first century emphasizes diversity and recognizes that each student possesses his or her own set of unique strengths, needs, interests and learning styles. In today's classrooms, educators are expected to provide equal opportunities for students to achieve their full potential in all aspects of development. "Students come into the classroom as individuals with unique cultures, ethnicities, beliefs and attitudes believed. Teachers embrace these differences by adapting their teaching practices to better meet the abilities, personalities and learning styles of their students. Unfortunately, this assumption is generally not reflected in teachers' planning, teaching and evaluating.

Through the implementation of different instruction and teaching to students' multiple intelligences, teachers can effectively meet students' needs and promote student engagement, motivation and participation (Gable, 2000; Guild, 2001). The phenomenon of differentiated instruction is closely related to Howard Gardner's theory of multiple intelligences. Multiple intelligence theory can be described as a philosophy of

education. A component of Gardner's theory holds that each individual is comprised of nine intelligence domains: verbal/linguistic, logical/mathematical, visual/spatial, bodily/kinesthetic, musical/rhythmic, interpersonal, intrapersonal, naturalistic and existential intelligence (Stanford, 2003).

Differentiated instruction in terms of instructional practices and strategies aims to assist in teaching, planning and evaluating multiple learners. It is a set of strategies that assist teachers in meeting each learner's needs by ensuring flexibility in what we teach, how we teach it, and how students demonstrate what they have learned (Levy, 2008).

The key to effective teaching is flexibility and adaptability. By adjusting one's teaching methods and styles, implemented activities and lessons will accurately reflect the diverse abilities, interests and learning styles of each student. Levy (2008) adds that teachers can differentiate learners by giving different types of assessment. Moreover, allowing them to choose where they preferred to learn, grouping style can be used by separating a variance of learner into groups where they can demonstrate unique ways in solving problem through their preferred style of learning.

Dunn (2000) adds that multiple intelligences could not only provide the teacher with more choices in teaching and assessment methods, but also allow students to demonstrate what they have learned in many different ways. The theory on multiple intelligences is used in teaching as a means for elementary students to explore their strengths. Since the diverse style of learning proposed by multiple intelligences theory can expose the strengths and weaknesses of students, it helps instructors

understand each student better and provide specific support where necessary. This research motivates the learner in excelling in their areas of strength and to study the learning difference. According to multiple intelligences theory, schools should employ various approaches to observe students' problem solving skills and accomplishments long-term. They should also assess the learners' current level from different angles. Therefore, this research seeks to use the multiple intelligences theory, centering the study on the students' learning interest in the hope of increasing learning effectiveness.

Review of Related Literature

When learners are involved, they not only pay attention more, but they also learn more (Lazer, 2004). Through multiple intelligences, teachers can incorporate much intelligence into one lesson to teach a new topic and create activities that will allow students to use their strengths to complete the activity. Grouping students with other students of similar or opposite strengths is also a way to engage students. Students can assist each other using their strengths to accomplish a task and further their learning. Schools should take the difference between individuals into consideration and allow students in the room where they can express themselves, placing equal attention and reassurance on those who show gifts in any one of the nine multiple intelligences. Moreover, the students should be respected as individuals and are valued.

Gardner (2006) himself stated "We would not expect individuals who did not like multiple intelligence approaches to spend much time reporting their failures." Because there is not one correct way to implement differentiated instruction or

multiple intelligences in the classroom, it is also difficult to find studies that have implemented exactly the same approach. Moreover, there are many different methods to assess student achievement; it is a philosophy of education or an attitude toward learning. In a multiple intelligence classroom, the teacher frequently changes methods of presentation and may combine intelligences in creative ways. Teachers also use varied teaching strategies, expanded curricula, and authentic assessment (Stanford, 2003). Similar to multiple intelligences, differentiated instruction is described as an instructional method that is implemented to meet the unique needs of an individual learner in a diverse classroom

The goal of the teacher is to learn how to effectively incorporate multiple intelligences into the classroom so students' self-confidence increases as they become more academically successful by noticing and recognizing their own preferred learning strategies (Temur, 2007). Therefore teachers continuously increase their knowledge based on the different strategies so that more teachers may feel confident and capable of integrating differentiated instruction during routines, lessons and meaningful experiences. According to McFarlane (2011), "multiple intelligences afford us the opportunities to better understand people from different social, cultural, political and historical backgrounds and relate to the contexts in which they live and learn"; therefore, teaching to multiple intelligence learners may be embraced, diversity will be promoted, and students will feel more accepted and included in a positive and sensitive classroom environment.

Academic achievement is a key to success in the future, and also for achieving high grades. It is also a criterion in order

to identify true capability of the learner and bring out their best. Nuthanap (2002) adds that multiple intelligence offers teachers a new way to look at students. Often, teachers view their students' skills as lacking in one way or another. However, when using multiple intelligence, teachers view their students as smart or skilled in their stronger intelligence areas and they use those areas of strength to teach students new content. Thinking of students in terms of their strengths also lends to having higher expectations for students which will challenge students to use their strengths for greater academic achievement. Once students' strengths are identified, a teacher can find ways to better accommodate students' learning needs. As Gardner (2006) explained, using multiple entry points to introduce new material will allow teachers to specifically target several intelligences. This will activate students' interest and get them involved in the learning process and also give students more exposure to the lesson content, giving them more opportunities to connect with the material.

In order for teachers to implement the theory of multiple intelligences in their classroom, they must first understand the nine intelligences. Once a teacher understands the nine intelligences, they will be able to perform the next step, which is identifying the intelligence strengths of their students. The teacher can then target those specific intelligences and teach new materials using those intelligence strengths. Studies have shown that teaching to students' strengths using multiple intelligences has many benefits, including meeting students' learning needs and engaging students, which can lead to higher student achievement.

No two persons are exactly the same. Children in all classrooms are heterogeneous, strategies that work with one learner may not work with others. Fraser-Abner (2001) explains that teachers should never make assumption about an individual based on their perception and get to know each learner as a unique individual: "walk in the footsteps of all your students. Therefore, infuse a variety of instructional material, strategies in your teaching", as remarked by one of education expert.

An integrated teaching approach is far more effective than teaching isolated bits of information. Corpuz & Salandanan (2013) said that instructional approach is integrated when it considers the multiple intelligences (MI) and varied learning style (LS) of learners. Therefore, learning through an integrated studies approach is enhanced when students are actively engaged in meaningful and related topics. Learners construct and produce knowledge by solving problems, conducting inquiry, engaging in reflection and building a repertoire of effective strategies. An integrated study helps students to become lifelong learners and allows efficient coverage and delivery of curriculum in terms of expertise or intelligence, resources and time.

Theoretical Framework

The theory of multiple intelligences is rooted in neurological, evolutionary, and cross-cultural evidence. In developing his theory, Gardner set out to broaden concepts of intelligence to include the result of paper-and-pencil tests, as well the knowledge of human brain and sensitivity to the diversity of human cultures.

According to Gardner (2003), the idea of multiple

intelligences is not new. As far back as when the science of psychology first began, scientists were suggesting a large array of human mental abilities or faculties. Over the years, there has been a continuing debate between the existence of single or of diverse intellectual capacities. Psychologists have argued for the existence of a number of factors or components of intelligence.

Gardner argues that there is persuasive evidence for the existence of several human intelligences. The exact number and nature of each intellectual "frame" is not clearly established; however, he is convinced that there exist a number of intelligences, independent of one another, that both individual and cultures can combine in a number of adaptive ways. Although Gardner separates the eight intelligences in order to categorize them, Gardner explains they rarely operate independently. People will use them at the same time, and they tend to complement each other as people develop new skill and solve problems.

The framework of the theory of multiple intelligences draws on historical studies of intelligence, on Gardner's prerequisites of intelligence, and on biological and anthropological evidence. Gardner introduces eight distinct criteria for multiple intelligence, and describe the nine candidate intelligences: verbal/linguistic, logical/ mathematical, musical, spatial/visual, bodily-kinesthetic, naturalist and the two forms of personal intelligence, one that is external (interpersonal), and one that forms of personal intelligences, one that internal (interpersonal) and existential. He also considers how intelligences develop within a culture, and how they are useful in various educational settings.

Howard Gardner of Harvard has identified seven distinct

intelligences. This theory has emerged from recent cognitive research and "documents the extent to which students possess different kinds of minds and therefore learn, remember, perform, and understand in different ways." According to this theory, "we are all able to know the world through language, logical-mathematical analysis, spatial representation, musical thinking, and the use of the body to solve problems or to make things, an understanding of other individuals, and an understanding of ourselves. Where individuals differ is in the strength of these intelligences - the so-called profile of intelligences - and in the ways in which such intelligences are invoked and combined to carry out different tasks, solve diverse problems, and progress in various domains."

Conceptual Framework

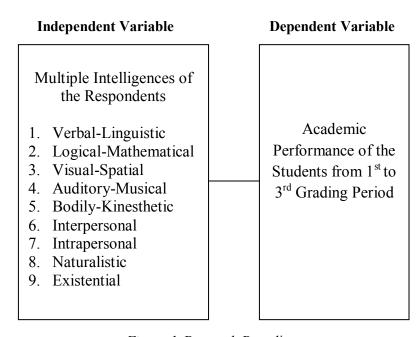


Figure 1. Research Paradigm

The conceptual framework shows the nine multiple intelligences of Howard Gardner (1993) a) verbal/linguistic b) logical/mathematical c) visual/spatial d) auditory/musical e) bodily/kinesthetic f) interpersonal g) intrapersonal h) naturalistic i) existential and their relationship with the academic performance grade six learners of San Roque Elementary School for the three quarters of School Year 2016-2017.

The Problem

This study aimed to assess and describe the relationship of multiple intelligences to the academic performance of the students at San Roque Elementary School, San Luis, Pampanga. Specifically, it sought answer to the following questions:

- 1. How may the profile of respondents be described in terms of:
 - 1.1. Gender
 - 1.2. Socio economic status?
- 2. What is the academic performance of the respondents from first to third quarter of School Year 2016- 2017?
- 3. Is there a significant relationship between the multiple intelligences and academic performance of respondents?

Method

This study was conducted at San Roque Elementary School and it is located in San Luis, Pampanga. The study used descriptive method of research which allows to provide facts or data on which scientific judgment may be based. A descriptive research employs research survey. This method of study is appropriate whenever the object of any class varies among themselves and one is interested in knowing the extent to which existence different conditions exists in measuring the extent to which different conditions exists in measuring the existence of a certain phenomenon.

The respondents were the grade six learners of San Roque Elementary School, San Luis, Pampanga for the academic year 2016-2017. Out of ninety-seven (97) grade six students, sixty-two (62) respondents were chosen, where twenty-seven (27) were male and thirty-five (35) were female.

The researchers adapted the survey questionnaire by Dr. Terry Armstrong (2000) to gather information on the multiple intelligences of Grade Six learners and correlate the results to their Academic Performance. The questionnaire dealt with the checklist of multiple intelligences divided into nine dimensions namely: verbal – linguistic, logical-mathematical, visual-spatial, auditory-musical, bodily-kinesthetic, interpersonal, intrapersonal, naturalistic, and existential. Each dimension consists of 5 items.

The data for this research were collected through the survey questionnaire. The letter asking for permission to conduct the study was given to the principal of San Roque Elementary School, San Luis, Pampanga. The data collected were treated with appropriate statistical tools for analysis and interpretation.

Results and Discussion

Table 1

Frequency and Percentage Distribution of the Respondents as to Gender

Gender	f	%
Female	35	56.45
Male	27	43.55
Total	62	100

Table 1 revealed the profile of the respondents in terms of gender. Out of the 62 grade six respondents, 35 or 56.45% were female. While male were 27 or 43.55%. Thus, most of the respondents were female.

Table 2

Frequency and Percentage Distribution of the Respondents as to Monthly Family Income

Monthly Family Income	f	%
P5,000 - below	25	40.32
P5,000 - P10,000	23	37.10
P10,000 - P20,000	9	14.52
P20,000 - P60,000	5	8.06
Total	62	100

Table 2 revealed the distribution of the respondents according to the Monthly Income of their family. There were 25

out of 62 respondents or 40.32% that belong to families with P5, 000- below monthly income. While, there were 23 or 37.10% belong to P5, 000-P10, 000. There were 9 or 14.52% of the respondents which belong to the families that have P10, 000-P20, 000 as monthly income while remaining 5 or 8.06% of the respondents have P20, 000-P60, 000 family income.

Table 3

Distribution of Mean Scores of the Respondents as to Verbal-Linguistic Intelligence

Verbal – Linguistic	WM	VI
Verbal-Q1	3.37	NAD
Verbal-Q2	3.31	A
Verbal-Q3	3.76	A
Verbal-Q4	3.60	A
Verbal-Q5	3.05	NAD
Total	3.52	A

Range	Verbal Interpretation
4.51 - 5.00	Strongly Disagree (SD)
3.51 - 4.50	Disagree (D)
2.51 - 3.50	Neither Agree nor Disagree (NAD)
1.51 - 2.50	Agree (A)
1.00 - 1.50	Strongly Agree (SA)

Table 3 revealed that Q1 got a weighted mean of 3.37 which was interpreted as Neither Agree nor Disagree (NAD), while Q2 got a 3.31 mean which is interpreted as agree, Q3 got a weighted mean of 3.76 which is interpreted as agree, Q4 got a weighted mean of 3.60 which is interpreted as agree, Q5 got a weighted mean of 3.05 which is interpreted as neither agree nor

disagree. Most of the respondents along verbal-linguistic intelligence attained the total weighted mean of 3.52 which is interpreted as agree.

Table 4

Distribution of Mean Scores of the Respondents as to Logical – Mathematical Intelligence

Logical – Mathematical	WM	VI
Logical_Q1	3.35	AD
Logical_Q2	3.14	AD
Logical_Q3	3.24	AD
Logical_Q4	2.94	AD
Logical_Q5	3.30	AD
TOTAL	3.30	AD

Table 4 revealed that Q1 with mean score of 3.35; Q2 (3.14); Q3 (3.24); Q4 (2.94); and lastly, Q5 with a mean of 3.30 which are all interpreted as neither agree nor disagree. Most of the respondents along the logical- mathematical intelligence received a total weighted mean of 3.30 which is interpreted as neither agree nor disagree or AD.

Table 5

Distribution of Mean Scores of the Respondents as to Spatial – Visual Intelligence

Spatial – Visual	WM	VI
Visual_Q1	3.17	A
Visual_Q2	3.81	A
Visual_Q3	3.97	A
Visual_Q4	3.39	A
Visual_Q5	3.0	AD
TOTAL	3.45	A

Table 5 revealed that Q1 got a weighted mean of 3.17 which is interpreted as agree (A), Q2 got a weighted mean of 3.81 which is interpreted as agree (A), Q3 got a weighted mean of 3.97 which is interpreted as agree (A), Q4 got a weighted mean of 3.39 which is interpreted as agree (A), Q5 got a weighted mean of 3.0 which is interpreted as neither agree nor disagree (AD). Most of the respondents got the total weighted mean of 3.45 in the area of spatial- visual intelligence which is interpreted as agree (A).

Table 6

Distribution of Mean Scores of the Respondents as to Bodily – Kinesthetic Intelligence

Bodily - Kinesthetic	WM	VI
BodilyQ1	3.68	A
BodilyQ2	3.29	AD
BodilyQ3	3.18	AD
BodilyQ4	3.19	AD
BodilyQ5	3.38	A
TOTAL	3.45	A

Table 6 revealed that Q1 got a weighted mean of 3.68 which is interpreted as agree (A), Q2 got a weighted mean of 3.29 which is interpreted as neither agree nor disagree (AD), Q3 got a mean score of which is interpreted as neither agree nor disagree (AD), Q4 got a weighted mean of 3.19 which is interpreted as neither agree nor disagree (AD), Q5 got a weighted mean of 3.38 which is interpreted as agree (A). Most of the respondents along the bodily-kinesthetic intelligence got the total weighted mean of 3.45 which is interpreted as agree (A).

Table 7

Distribution of Mean Scores of the Respondents as to Musical Intelligence

Musical	WM	VI
Musical_Q1	3.79	AD
Musical_Q2	3.56	A
Musical_Q3	3.95	AD
Musical_Q4	3.60	Α
Musical_Q5	3.35	AD
TOTAL	3.45	A

Table 7 revealed that Q1 got a weighted mean of 3.79 which is interpreted as neither agree nor disagree (AD), Q2 got a weighted mean of 3.56 which is interpreted as agree (A), Q3 got a weighted mean of 3.95 which is interpreted as neither agree nor disagree (AD), Q4 got a weighted mean of 3.60 which is interpreted as agree (A), Q5 got a weighted mean of 3.35 which is interpreted as neither agree nor disagree (AD). Most of the respondents in terms of musical intelligence got the total weighted mean of 3.45 which is interpreted as agree (A).

Table 8

Distribution of Mean Scores of the Respondents as to Interpersonal Intelligence

Interpersonal	WM	VI
Interpersonal_Q1	4.08	A
Interpersonal_Q2	3.63	A
Interpersonal_Q3	3.85	A
Interpersonal_Q4	3.53	A
Interpersonal_Q5	3.45	A
TOTAL	3.71	A

Table 8 revealed that Q1 got a weighted mean of 4.08 which is interpreted as agree (A), Q2 got a weighted mean of 3.63 which is interpreted as agree (A), Q3 got a weighted mean of 3.85 which is interpreted as agree (A), Q4 got a weighted mean of 3.53 which is interpreted as agree (A), Q5 got a weighted mean of 3.45 which is interpreted as agree (A). Most of the respondents in terms of interpreted as agree got the total weighted mean of 3.71 which is interpreted as agree (A).

Table 9

Distribution of Mean Scores of the Respondents as to Intrapersonal Intelligence

Intrapersonal	WM	VI
Intrapersonal_Q1	3.82	A
Intrapersonal_Q2	3.44	AD
Intrapersonal_Q3	4.08	A
Intrapersonal_Q4	3.74	A
Intrapersonal_Q5	3.42	AD
TOTAL	3.7	AD

Table 9 revealed that Q1 got a weighted mean of 3.82 which is interpreted as agree (A), Q2 got a weighted mean of 3.44 which is interpreted as neither agree nor disagree (AD), Q3 got a weighted mean of 4.08 which is interpreted as agree (A), Q4 got a weighted mean of 3.74 which is interpreted as agree (A), Q5 got a weighted mean of 3.42 which is interpreted as neither agree nor disagree (AD). Most of the respondents along the intrapersonal intelligence got the total weighted mean of 3.7 which is interpreted as neither agree nor disagree (AD)

Table 10

Distribution of Mean Scores of the Respondents as to Naturalistic Intelligence

Naturalistic	WM	VI
Naturalistic_Q1	3.60	A
Naturalistic_Q2	3.49	A
Naturalistic_Q3	3.87	A
Naturalistic_Q4	3.89	A
Naturalistic_Q5	3.79	A
TOTAL	3.82	A

Table 10 revealed that Q1 got a weighted mean of 3.60 which is interpreted as agree (A), Q2 got a weighted mean of 3.49 which is interpreted as agree (A), Q3 got a weighted mean of 3.87 which is interpreted as agree (A), Q4 got a weighted mean of 3.89 which is interpreted as agree (A), Q5 got a weighted mean of 3.79 which is interpreted as agree (A). Most of the respondents in terms of naturalistic intelligence got the total weighted mean of 3.82 which is interpreted as agree (A).

Table 11

Distribution of Mean Scores of the Respondents as to Existential Intelligence

Existential	WM	VI
Existential_Q1	3.74	A
Existential_Q2	3.43	AD
Existential_Q3	3.65	A
Existential_Q4	3.73	A
Existential_Q5	3.61	A
TOTAL	3.63	A

Table11 revealed that Q1 got a weighted mean of is 3.74 which is interpreted as agree (A), Q2 got a weighted mean of 3.43 which is interpreted as neither agree nor disagree (AD), Q3 got a weighted mean of 3.65 which is interpreted as agree (A), Q4 got a weighted mean of 3.73 which is interpreted as agree (A), Q5 got a weighted mean of 3.61 which is interpreted as agree (A). Most of the respondents along the existential intelligence got the total weighted mean of 3.63 which is interpreted as agree (A)

Table 12

Distribution of Mean Scores on the Multiple Intelligences of the Respondents Based on their Perceptions

Multiple Intelligences	WM	VI
Verbal-Linguistic	3.52	A
Logical- Mathematical	3.20	AD
Spatial-Visual	3.45	AD
Bodily-Kinesthetic	3.45	AD

Table 12 Continuation

Multiple Intelligences	WM	VI
Musical	3.45	AD
Interpersonal	3.71	A
Intrapersonal	3.07	AD
Naturalistic	3.05	AD
Existential	3.63	A
Overall	3.48	AD

Table 12 revealed that verbal-linguistic got a weighted mean of 3.52 which is interpreted as agree (A), logicalmathematical got a weighted mean of 3.20 which is interpreted as neither agree nor disagree (AD), spatial-visual got a weighted mean of 3.45 which is interpreted as neither agree nor disagree (AD), bodily-kinesthetic got a weighted mean of 3.45 which is interpreted as neither agree nor disagree (AD), musical got a mean score 3.45 which is interpreted as neither agree nor disagree (AD), interpersonal got a weighted mean of 3.71 which is interpreted as agree (A), intrapersonal got a weighted mean of 3.07 which is interpreted as neither agree nor disagree (AD), naturalistic got a weighted mean of 3.05 which is interpreted as neither agree nor disagree (AD), existential with 3.63 which is interpreted as agree (A). Most of the respondents along the multiple intelligences got the total weighted mean of 3.48 which is interpreted as neither agree nor disagree (AD).

Table 13

Frequency and Percentage Distribution of the Academic Performance of the Respondents

Grading Scale (Descriptor)	f	%
90-100 (Outstanding)	5	8.06
85-89 (Very Satisfactory)	34	54.84
80-84 (Satisfactory)	22	35.48
75-79 (Fairly Satisfactory)	1	1.61
Below 75 (Did not meet the expectation)	0	0
Total	62	100

The respondent's academic performance was determined through their GPA in third grading period.

Table 13 revealed that 5 (8.06%) of the respondents were able to obtain a rating of "outstanding" with corresponding general average of 90-100; 34 (54.84) of the respondents were able to obtain a general average ranging from 85-89 interpreted as "very satisfactory" in terms of academic performance; 22 (35.48) obtain general average from 80-84 corresponding to "satisfactory" rating; 1 (1.61) of the respondents obtain a general average of 75-79 or "fairly satisfactory ratings; 0 of the respondents obtain a general average of 74 below or "did not meet expectation" rating for their academic performance from SY 2016-2017.

The lowest general average obtain of the respondents was 76 while the highest general average is 94. With a mean rating of 85.19, it can be deduced that the academic performance of Grade 6 respondents of San Roque Elementary School for

SY 2016-1017 was generally "Very Satisfactory."

Academic performance is one of the keys to success in the future, and in terms of achieving high grades, it is also a criterion in order to identify true capability of the learner and bring out their best (Nuthanap, 2002). Therefore, Multiple intelligence offers teachers a new way to look at learners. Often, teachers view their students' skills as lacking in one way or another.

Table 14

Pearson r Significant of Multiple Intelligences and Academic Performance

Variable	Pearson R	Interpretation
Verbal-Linguistic vs. Academic Performance	0.06	Negative/ Negligible
Logical-Mathematical vs. Academic Performance	-0.16	Positive /Negligible
Visual-Spatial vs. Academic Performance	0.03	Positive /Negligible
Auditory-Musical vs. Academic Performance	0.03	Positive /Negligible
Bodily-Kinesthetic vs. Academic Performance	0.03	Positive /Negligible
Interpersonal vs. Academic Performance	0.19	Positive /low
Intrapersonal vs. Academic Performance	-0.12	Negative /Negligible
Naturalistic vs. Academic Performance	-0.05	Negative /Negligible
Existential vs. Academic Performance	0.09	Negative /Negligible

Table 14 Continuation

Variable	Pearson R	Interpretation
Multiple Intelligences vs. Academic Performance	0.03	Positive negligible

Ranges of Interpretation

- $\pm .70$ to ± 1.0 = high correlation relationship
- \pm .40 to \pm .69 = substantial relationship
- \pm .20 to \pm .39= low relationship
- $\pm .00$ to $\pm .19$ = indifferent / negligible relationship

Table 14 revealed that verbal-linguistic variable and academic performance of the respondents got 0.06 value as a result of Pearson r which can be interpreted as negative negligible. Logical-mathematical variable and academic performance of the respondents has -0.16 value as a result of Pearson r which is interpreted as positive negligible. Visual spatial variable got 0.03 value as a result of a Pearson r which is interpreted as positive negligible. Auditory musical variable got 0.03 value as a result of Pearson r which is interpreted as positive negligible. In bodily kinaesthetic variable and academic performance attain 0.03 value as a result of Pearson r which is interpreted as positive negligible. Interpersonal variable and academic performance got 0.19 value as a result of Pearson r which is interpreted as positive low. Intrapersonal variable and academic performance got -0.12 as a result of Pearson r which is interpreted as negative negligible. Naturalistic variable got -0.05 value as a result of Pearson r which is interpreted as negative negligible. Lastly, existential variable and academic performance got 0.09 value as a result of Pearson r which is interpreted as negative negligible.

There is Negative Negligible correlation between verballinguistic and academic performance. Positive Negligible exists in between logical-mathematical and academic performance. Positive Negligible exists between visual- spatial and academic performance. Positive Negligible exists between auditorymusical and academic performance. Positive Negligible exists between bodily- kinesthetic and academic performance. Positive exists between interpersonal and academic low performances. Negative Negligible exists between intrapersonal and academic performances. Negative Negligible exists between naturalistic and academic performances. And Negative negligible exists between naturalistic and academic performances.

The result of the respondents as to Multiple Intelligences vs. Academic Performance got the total pearson r of 0.03 which can be interpreted as positive negligible.

Findings may imply that how effective to incorporate multiple intelligences into the classroom so students self-confidence increases as they become more academically successfully (Temur, 2007).

Temur stated that multiple intelligences positively affected to the learners achievement as each learners actively participated in the lesson, were engaged and more aware of their own strengths and abilities.

Conclusions

In the light of the foregoing findings, the following conclusions were drawn: Most of the respondents are female, and 40.32% of the respondents have P5, 000- below monthly income. With an overall weighted mean of 3.48, the respondents multiple intelligences were neither "Neither agree nor disagree." Most of the respondents were able to attained 85-89 which can be interpreted as very satisfactory .With General Weighted Average of 85.19; academic performances of respondents were "Very Satisfactory". Interpersonal was their dominant intelligence, while Naturalistic was a least one. Significant relationship exists between multiple intelligences and academic performance.

Recommendations

Based on the findings and conclusion of this study, the following recommendations are hereby given:

- 1. Schools should study the theory in depth before encouraging the integration of it into teaching and assessments. They should provide full support to the teachers who utilize multiple intelligences theory in teaching and assessments.
- 2. The teacher's application of multiple intelligences to teaching and assessment needs support and accommodation from the school in all aspects.
- 3. Teachers must recognize their own intelligences trend in advance and utilize the dominant intelligence to carry out lesson plans for maximum result and minimal efforts.

- 4. Educators must also guide learners in recognizing their own dominant intelligence and encourage the use of it in learning. Teachers should guide the students in recognizing their own multiple intelligence trends, and utilize the dominant intelligence in learning for better results and greater sense of achievement.
- 5. The multiple intelligences can be applied to people of any age, and the person can become more intelligent through studies. For this reason, it is recommended that future research looks into the application of multiple intelligences in other age groups. In addition, combination of theory into remedial teaching can help students recognize and utilize their dominant intelligence for learning, Lastly, we suggest the addition of teaching and assessment of multiple intelligences into other design-related subject to develop more lesson plans that can appeal to learners and motivate them more.
- 6. It is suggested that future researcher can include the observation of a class in session, Video-taping, or depth interviews with learners, etc. This approach will help researcher understand some of the difficulties the subjects may encounter during the application of multiple intelligences teaching. In addition, the teaching and assessment could be done on different combination with dominate intelligence.

References

- Corpuz, B. and Salandalan G. (2013). Principles of Teaching ISBN 971-685-749-8 1 .3rd edition
- Dunn, R. (2000). *Learning styles:* Theory, research, and practice. National Forum of Applied Educational Research Journal, 13 (1), 3-22.
- Fraser-Abner (2001) Understanding Multicultural Learners.
- Gable, R. A. (2000). Changing disciplinary and instructional practices in the middle school to address IDEA. The Clearing House, 73(4), 205-208.
- Gardner, R.(2003). The science of multiple intelligences theory: a reponse to Lynn waterouse. Eduacational Psychologist, 41(4), 227-232. 1 0.1207/s15326985ep41 04_2
- Guild, P. B. (2001). *Diversity, Learning Style and Culture*. New Horizons for Learning. http://www.newhorizons.org/strategies/styles.guild.htm [15 May 2005].
- Lazer, D. (2004). Higher-order thinking the multiple intelligence way. Chicago, IL: Zephyr Press.
- Levy,H.M (2008). Meeting the needs of all students through differentiated instruction: Helping every child reach and exceed standards. The clearing House: A Journal of Educational Strategies, Issues and Ideas, 81(4), 161-164. Doi:10.3200/TCHS.81.4.161-64

- Nuthanap, G. (2002) " Gender Analysis of Academic achievement among High School Students," Master's Thesis. Department of Human Development, College of Rural Home Science,
- Freedman, R. (2015). Enhanced possibilities for teaching and learning: awhole school approach to incorporating multiple intelligences and different instruction. Teaching and Learning Ontorio Institute for Studies in Education for the UT.
- Standford, P. (2003). The Effects of Teaching Activities Prepared According to the Multiple Intelligences Theory on Mathematics Achievements and Permanences of Information Leearned by 4th Grade Students. International journal of Environment & Science Eduaction, 2 (4),86-91
- Temur, O.D. (2007). The Effects of Teaching Activities Prepared According to the Multiple Intelligence Theory on Mathematics Achievements and Permanence of Information Learned by 4th Grade Students .International Journal of Environmental & Science Education, 2(4), 86-91
- Tomlinson, C. (2001). How to differentiate instruction in mixed-ability classrooms. Alexandra, Va. Association for Supervision and Curriculum Development