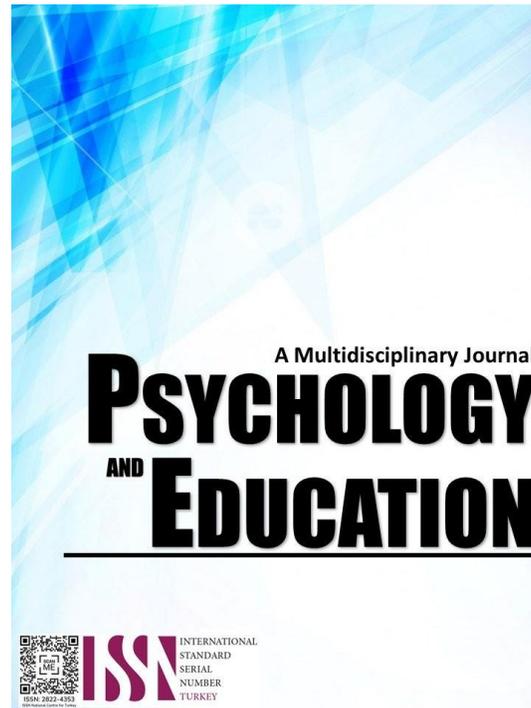


**EFFECTS OF HETEROGENEOUS GROUPING ON THE ACADEMIC  
PERFORMANCE OF GRADE THREE PUPILS IN STA. CRUZ  
ELEMENTARY SCHOOL, DISTRICT I-A, DIVISION  
OF ANTIPOLO CITY**



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## Effects of Heterogeneous Grouping on the Academic Performance of Grade Three Pupils in Sta. Cruz Elementary School, District I-A, Division of Antipolo City

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### Abstract

The study aimed to determine the effects of heterogeneous grouping on the academic performance of grade three pupils in Sta. Cruz Elementary School, District I-A, Division of Antipolo City during the School Year 2019-2020. Fifty percent of the population of grade three pupils in heterogeneous grouping in the said school were considered as respondents. This consists of 550 pupils out of 1100 grade three pupils. They were chosen utilizing the simple random sampling technique. They were described in terms of sex, sibling position, monthly family income, number of children in the family and parents' educational attainment. Descriptive survey research design was applied utilizing a researcher-made questionnaire-checklist. This was administered to the pupil-respondents to gather the needed data on the effects of heterogeneous grouping on the performance of grade three pupils as perceived by themselves with respect to intellectual ability, study habits, emotional stability and social relations. Likewise, documentary analysis was utilized since the average grades of the pupils were obtained as basis of their academic performance. The study revealed that pupils are predominantly female and first and third child of the family. Most of them belong to low-income families and an only child with parents who are college undergraduates. Heterogeneous grouping has much effect on the performance of pupils with respect intellectual ability, study habits, emotional stability and social relations. Significant difference was found on the extent of effects of heterogeneous grouping when grouped by monthly family income, number of children in the family and parents' educational attainment; however, when grouped by sex and sibling position, no significant difference was found. The pupils perform very satisfactory as revealed in their average grades. There is significant correlation between the perceived extent of effects of heterogeneous grouping and the academic performance of pupils. Based on the findings of the study, monthly family income, number of children in the family and parents' educational attainment are significant on the perceived effects of heterogeneous grouping on pupils' performance. Heterogeneous grouping is related to the academic performance of pupils. The study recommended that school administrators may conduct massive information dissemination to parents on heterogeneous grouping of their children. Teachers may always tailor their classroom rules around the general policies of the school and the practice of heterogeneous grouping of the pupils. Pupils may be exposed to more meaningful learning activities in the classroom to enhance their emotional stability and social relations. Pupils should be encouraged to identify their learning preferences so as to improve their study habits and academic performance. The proposed action plan is recommended for implementation. Similar studies may be conducted considering other variables.

**Keywords:** *academic performance, heterogenous grouping, classroom*

### Introduction

Education has undeniably gained enormous respect for its perceived value in the conduct of human life. It is crucial to the social, political and economic development of any nation and consequently effective education is very essential. It plays a very important role in everyone's life. It takes its part continuously in all aspects of life. It is the primary agent of transformation towards sustainable development and increases people's capacities to transform their visions for society into reality. Likewise, education helps in shaping the life of an individual. It is the process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs and habits. It is the transfer of power to the minds of every individual.

This is why parents send their children to school, hopeful that in doing so, they are curving for their children a bright future usually equated to material prosperity. To realize this goal, children should undergo formal education.

As stipulated in Article XIV Section 1 of the 1987 Philippine Constitution: "The State shall protect and promote the right of all citizens to quality education at all levels and shall take appropriate steps to make such education accessible to all."

The state therefore provides an educational system where priorities will meet the needs of all citizens by way of developing their potentials and skills as well as the development of their physical and moral well-being. A continuing concern of Philippine Education today is the struggle for making it relevant to the needs of the individuals of different levels of mentality. It is in this aspect that teachers should provide educational opportunities that are best suited to different kinds of learners.

Traditional educational systems classified students according to different levels of intellectual skill or the homogeneous type of class. These levels are whether the students are bright, dull, smart, slow and clever. The basis for the classification of students was focused more on mental abilities. This is for the reason why we have a so-called sectioning in the class, labeled as section 1, section 2 and so on or the letters of the alphabet," A being with the highest mental abilities group of pupils.

Department Education Memorandum No. 08 s. 2013 stated that: "In cognizance of DepEd's goal to establish and maintain an equitable

learning environment on the schools, all school heads are enjoined to subscribe to heterogeneous scheme in organizing classes all grade and year levels. It is however emphasized that one pilot class per level may still be organized. Labeling of classes using number or letters must be avoided, instead names of local heroes, trees, flowers and other national/local features and trait”.

In accordance to the memorandum, teachers must show impartiality at all times. They must be fair and consistent with their implementation of agreed upon-commitments. Above all they must see to it that all students are given the needed opportunities to bring their potentials and sharpen them at the same time.

Hence, teachers must provide all the opportunities for students to experience success. Teachers should do more challenging tasks to the pupils. When failures are given emphasis, this will kill motivation, create a negative concept about them, thus bring out anxiety and eventually lead misbehavior.

The heterogeneous class of learners today has been the big issue of teachers who is handling that kind of class. The teacher should address equity to ensure that appropriate learning goals are attained by everyone. One of the prevalent concerns of educators these days is the varied learning style of the learners—that the learners have different convenient ways of learning that influence their abilities to understand their lessons. Understanding of theories and concept on different learning styles of pupils is very essential for it would not be only enable to teacher to help learners carry out their individuality and recognize their efforts in establishing their self-identity, but to be able to design new teaching strategies and provide varied activities suitable for the learners with varied learners styles.

In response to DepEd’s memorandum, public elementary schools presently using the heterogeneous class grouping scheme. Teachers have varied reactions and perception for this kind of grouping. Some are positive, others are negative. One negative impact to the teachers is his or her teaching and learning style. Teachers may think that the provided material is either too difficult or too easy for their class. On the other hand, the positive effect is that heterogeneous class may provide a bigger opportunity for creativity and innovation as well as more interesting and challenging task for teachers in the teaching and learning process.

The researcher as an elementary school teacher handling heterogeneous grouping experienced some difficulties both in the part of the teacher and in the pupils. It is from this vantage point that the researcher was prompted to conduct a study on the effects of heterogeneous grouping on the academic performance of primary grades pupils in Sta. Cruz Elementary School.

## Research Questions

The study aimed to determine the effects of heterogeneous grouping on the academic performance of grade three pupils in Sta. Cruz Elementary School, District I-A, Division of Antipolo City during the School Year 2019-2020. Specifically, the study sought answers to the following questions:

1. What is the profile of the pupil-respondents in terms of:
  - 1.1 sex;
  - 1.2 sibling position;
  - 1.3 monthly family income;
  - 1.4 number of children in the family; and
  - 1.5 parents’ educational attainment?
2. What is the extent of effects of heterogeneous class on the performance of pupils as perceived by themselves with respect to:
  - 2.1 intellectual ability;
  - 2.2 study habits;
  - 2.3 emotional stability; and
  - 2.4 social relations?
3. Is there a significant difference on the extent of effects of heterogeneous grouping on the performance of pupils as perceived by themselves with respect to the cited aspects in terms of their profile?
4. What is the level of academic performance of the pupil–respondents as revealed in their average grades ?
5. Is there a significant relationship between the academic performance of the pupil-respondents and the perceived effects of heterogeneous grouping?
6. What plan of action may be proposed to enhance the academic performance of pupils in a heterogeneous grouping?

## Methodology

### Research Design

This study utilized the descriptive research method which is designed to gather information about present existing condition needed in the study. Specifically, the descriptive survey research design was applied utilizing a researcher-made questionnaire-checklist as the main tool in gathering data in order to test by hypotheses or to answer questions concerning the current status of the subject of the study. According to Salvador et al. (2010), descriptive research describes and interprets “what is.” It reveals conditions or relationships that exist or do not exist, practices that prevail or do not prevail, beliefs or points of view or attitudes that are held or not held, processes that are going on or otherwise, effects that are being felt, or trends that are developing. It attempts to interpret the present.

Specifically, the study applied the descriptive survey research design. The researcher considers this research design as appropriate for this study since the nature of the study involves the gathering and interpreting of detailed information to be used as basis in identifying the effects of heterogeneous grouping on the academic performance of grade three pupils. Documentary analysis was also applied since the average grades of the grade three pupils were obtained as basis of their academic performance.

## Respondents

The respondents of the study considered 50% of the total population of grade three pupils in Sta. Cruz District I-A, Division of Antipolo City. They were chosen utilizing the simple random sampling technique. They were described in terms of sex, monthly family income, sibling position, number of children in the family and parents' educational attainment.

Table 1 shows the respondents of the study by section.

*Table 1. Respondents of the Study*

Section	Pupils		Section	Pupils	
	Population	Sample		Population	Sample
III-Amber	34	17	III-Moonstone	35	17
III-Amethyst	34	17	III-Olivine	38	19
III-Aquamarine	32	16	III-Onyx	36	18
III-Beryl	40	20	III-Opal	33	16
III-Bronze	34	17	III-Pearl	35	18
III-Carnelian	36	18	III-Peridot	35	18
III-Chalcedony	35	18	II-Platinum	33	16
III-Chrysolite	34	17	III-Ruby	33	16
III-Crystal	36	18	III-Sapphire	34	17
III-Diamond	32	16	III-Sardius	33	17
III-Emerald	32	16	III-Sardonyx	33	16
III-Garnet	34	17	III-Silver	33	17
III-Gold	37	18	III-Sunstone	34	17
III-Ivory	32	16	III-Topaz	34	17
III-Jade	37	19	III-Turquoise	32	16
III-Jasper	36	18	III-Zircon	34	17
	555	278		545	272
Total Population				1100	
Total Sample				550	

## Instruments

The major instrument used to gather data is a structured questionnaire–checklist devised by the researcher. The questionnaire-checklist was formulated based on the review of related literature and studies. The questionnaire-checklist consisted of two parts. Part 1 deals personal data of the pupils such as sex, monthly family income, sibling position, number of children in the family and parents' educational attainment.

The second part deals with the effects of heterogeneous grouping on the performance of grade three pupils with respect to, intellectual ability, study habits emotional stability and social relations. The items in the questionnaire checklist were translated in Filipino for better understanding of the pupils. Average grades of the grade three pupils were obtained as basis of their academic performance. The researcher-made questionnaire-checklist was content validated by persons knowledgeable in the field of research and education. The comments and suggestions of the experts were considered for the improvement of the questionnaire. It was also submitted to Language critic who verified the use of grammar and suggests the use of appropriate words and phrases.

## Procedure

The study followed the Gantt Chart of Activities. Permission from concerned authorities was secured after the validation of the questionnaire-checklist. Data gathering and retrieval of the questionnaire-checklist followed. Data were treated utilizing Statistical Package for Social Sciences. Summary of findings, conclusions and recommendations were formulated. After the oral defense, the manuscript was revised incorporating all the comments and suggestions of the oral examination committee. The manuscript was also subjected to antiplagiarism test. After the final editing and revision, final copies of the manuscript were submitted to the office of the Graduate Studies Program and other concerned offices.

## Data Analysis

For the analysis and interpretation of data, the following statistical tools were considered: To determine the profile of the respondents, frequency and percentage distribution were used.

To determine the effects of heterogeneous grouping on the performance of pupils as perceived by themselves with respect to the different aspects, weighted mean was applied.

To find out if significant difference exists on the effects of heterogeneous grouping on the performance of pupils as perceived by themselves with respect to the different aspects in terms of their profile, one way analysis of variance was applied.

To determine the level of pupils' academic performance, mean and standard deviation were applied.

To determine the significant relationship between the perceived effects of heterogeneous grouping and pupils' academic performance, correlation analysis was applied.

## Results and Discussion

### Profile of the Pupil-Respondents in Terms of the Selected Variables

Table 2 presents the frequency and percentage distribution of the pupil-respondents in terms of the selected variables.

Table 2. *Frequency and Percentage Distribution of the Pupil-Respondents in Terms of the Selected Variables*

<i>Sex</i>	<i>f</i>	<i>%</i>		
Male	255	46		
Female	295	54		
Total	550	100		
<i>Sibling Position</i>				
First	179	33		
Second	160	29		
Third	165	30		
Fourth	46	8		
Total	550	100		
<i>Monthly Family Income</i>				
₱20,000 and above	159	29		
₱15,000 - ₱19,999	138	25		
₱10,000 - ₱14,999	143	26		
Below ₱10,000	110	20		
Total	550	100		
<i>Number of Children in the Family</i>				
4 and above	190	35		
3	116	21		
2	121	22		
1	123	22		
Total	550	100		
<i>Parents' Educational Attainment</i>				
	<i>Father</i>		<i>Mother</i>	
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>
College Graduate	101	18	144	26
College Undergraduate	141	26	154	28
High School Graduate	130	24	105	19
High School Undergraduate	122	22	95	17
Elementary Graduate	56	10	52	10
Total	550	100	550	100

The table shows that in terms of sex, most of the pupil-respondents are female with 295 or 54 percent while 255 or 46 percent are male. In terms of sibling position, most of the students are first and third child of the family and their monthly family income ranges from Php 20,000 and above with 159 or 29 percent; while 110 or 20 percent have income below Php 10,000.00. As regard to the number of children in the family, out of 550 students, there are 190 or 35 percent who have 4 and above number of children in the family and 22 percent of them has 2 children and 1 child in the family respectively. Majority of their fathers are college undergraduate and high school graduate with 26 and 24 percent respectively while their mothers are college undergraduates and college graduate with 28 and 26 percent respectively. Few of the parents are elementary graduates.

### Extent of Effects of Heterogeneous Grouping on the Performance of Grade Three Pupils as Perceived by Themselves

Table 3 presents the extent of effects of heterogeneous grouping on the performance of grade three pupils as perceived by themselves with respect to intellectual ability.

The table reflects that with respect to intellectual ability, the overall weighted mean is 3.92 verbally interpreted Much. All the items is interpreted Much with first in rank is item 3 "In the heterogeneous groupin, I maximize time to learn more" with a weighted mean of 4.06' however, last in rank is item 7 "In the heterogeneous grouping, I show love for learning by asking questions to the teacher with a weighted mean of 3.53 interpreted Much.

Table 3. *Extent of Effects of Heterogeneous Grouping on the Performance of Grade Three Pupils as Perceived by Themselves with Respect to Intellectual Ability*

<i>Intellectual Ability In the heterogeneous grouping, I...</i>	<i>Weighted Mean</i>	<i>Verbal Interpretation</i>	<i>Rank</i>
find ways to apply new learning at home.	3.91	Much	2
understand the lesson easily.	3.89	Much	4
maximize time to learn more.	4.06	Much	1
examine a problem thoroughly following the lesson.	3.81	Much	8
analyze situation before getting into the answer.	3.85	Much	7
dig deeper into the given problem.	3.88	Much	5
show love for learning by asking questions to the teacher.	3.53	Much	10
perform other tasks as instructed by the teacher.	3.90	Much	3
gain more knowledge other than what is learned.	3.86	Much	6
contribute to brainstorming by sharing experiences.	3.54	Much	9
Overall WX	3.82	Much	

It can be noted from the findings that the performance of the grade three pupils is affected much by heterogeneous grouping with respect to intellectual ability. This means that in heterogeneous grouping, the pupils find ways to apply new learning at home and perform other tasks as instructed by the teachers. Furthermore, it means that the intellectual ability of the pupils is evident since they understand the lessons easily, thus gain more knowledge other than what is learned.

This relates with the discussion of Picciotto (2017) that heterogeneous classes can provide very rich foundation of human resources and that the individuals can enrich the others with their experience, their varied opinions and ideas. The students can cooperate and build such an environment where the students can understand each other, where the high achieving students could tolerate and help to less achieving learners. These classes may provide a opportunity for creativity and innovation, the teacher could find the teaching more interesting and challenging.

Table 4 presents the extent of effects of heterogeneous grouping on the performance of grade three pupils as perceived by themselves with respect to study habits.

Table 4. *Extent of Effects of Heterogeneous Grouping on the Performance of Grade Three Pupils as Perceived by Themselves with Respect to Study Habits*

<i>Study Habits In the heterogeneous grouping, I...</i>	<i>Weighted Mean</i>	<i>Verbal Interpretation</i>	<i>Rank</i>
participate in the class discussion.	3.34	Moderate	10
study hard to get high grades.	4.09	Much	1
listen actively to the teacher.	3.95	Much	4
exert extra effort in studying whenever there are exercises.	3.72	Much	9
make assignments and projects religiously and with quality.	3.90	Much	7
ask question to the teacher whenever the lesson is not clear.	3.93	Much	5
look up in the dictionary and books or asks parents to understands some words.	3.99	Much	2
follow regular time for study.	3.93	Much	6
attend class regularly.	3.73	Much	8
ask parents help whenever I have trouble in making assignments.	3.97	Much	3
Overall WX	3.85	Much	

The table depicts that with respect to study habits, nine out of the 10 items verbally interpreted Much while only one is interpreted Moderate. Among the items, item 2 “In the heterogeneous grouping, I study hard to get high grades” is first in rank with an obtained mean of 4.09 verbally interpreted Much; while item 1 “In the heterogeneous grouping, I participate in the class discussion” as last in rank with an obtained weighted mean of 3.34 interpreted Moderate.

This only denotes that the performance of the grade three pupils is much affected by the heterogeneous grouping with respect to study habits. This implies that heterogeneous groups makes the pupils look up in the dictionary and books or asks parents to understands some words and ask their parents’ help whenever they have trouble in making assignments. Moreover, teachers who grouped them heterogeneously, pupils ask questions to the teachers whenever the lesson is not clear to them, thus listen to the teachers actively.

The findings is supported by the discussion of Corpuz (2016), that there are some modern methods and techniques of learning that would help a child get better grades in school. These are helping child from study habits with few interruptions and disruptions; increasing the child’s interest in learning; providing him with an ideal foundation upon which to build education. Teaching the child to read better, helping the child to learn; to listen; to write legibly; and letting the child know that you are interested in his work.

Table 5 presents the extent of effects of heterogeneous grouping on the performance of grade three pupils as perceived by themselves with respect to emotional stability.

Table 5. *Extent of Effects of Heterogeneous Grouping on the Performance of Grade Three Pupils as Perceived by Themselves with Respect to Emotional Stability*

<i>Emotional Stability In the heterogeneous grouping, I...</i>	<i>Weighted Mean</i>	<i>Verbal Interpretation</i>	<i>Rank</i>
exhibit nervousness whenever the teachers start the lesson.	4.00	Much	2
grasp the lesson easily even if there is a problem at home.	3.73	Much	10
show bothersome about family problem while in school.	3.91	Much	4
accept mistakes and constructive criticism openly.	3.76	Much	9
get poor learning outcomes due to family problem.	3.85	Much	7
participate actively in all classroom activities.	3.86	Much	6
encourage classmates to join study groups especially on hard topics.	3.80	Much	8
am inspired to work with classmates.	3.89	Much	5
discuss new ideas with classmates related to the topic.	3.94	Much	3
enjoy stay in school.	4.06	Much	1
Overall WX	3.88	Much	

As gleaned in the table, with respect to emotional stability, all the items are verbally interpreted and the overall weighted mean is 3.88 also interpreted Much. Ranked first is item 10 “In the heterogeneous grouping, I enjoy stay in school” with an obtained weighted mean of 4.06; otherwise ranked last in item 2 “In the heterogeneous grouping, I grasp the lesson easily even if there is a problem at home” got a weighted mean of 3.73. It can be deduced from the table that the performance of the pupils is much affected by heterogeneous grouping with respect to emotional stability. This implies that the pupils when group heterogeneously, they discuss new ideas with classmates related to the topic and show bothersome about family problem while in school. Moreover, they encourage classmates to joint study groups especially on hard topics, thus they are inspired to work with classmates.

This is in consonance with the statement of Bainbridge (2018), that a teacher has to try to be sure everyone in a heterogeneous classroom is being challenged and learning the material. Gifted students in heterogeneous classes may not fare as well as their peers. They may feel pressure to be "second teachers," that is, help students who are not grasping the material as readily. These gifted students may also grow impatient and bored at the pace of a traditional classroom, which can lead to frustration. Since the majority of students in a classroom are average students, classrooms tend to be geared toward their learning needs.

Table 6 presents the extent of effects of heterogeneous grouping on the performance of grade three pupils as perceived by themselves with respect to social relations.

The table shows that with respect to social relations, the overall weighted mean is 3.74 verbally interpreted Much and all the items is verbally interpreted Much. The same table displays that ranked first is item 1 “In the heterogeneous grouping, I display uneasiness whenever asked by teachers to recite” with an obtained weighted mean of 4.12; otherwise ranked last is item 8 “In the heterogeneous grouping, show indifference if not interested to the lesson” with the lowest weighted mean of 3.03 interpreted Much.

Table 6. *Extent of Effects of Heterogeneous Grouping on the Performance of Grade Three Pupils as Perceived by Themselves with Respect to Social Relations*

<i>Social Relations In the heterogeneous grouping, I...</i>	<i>Weighted Mean</i>	<i>Verbal Interpretation</i>	<i>Rank</i>
display uneasiness whenever asked by teachers to recite.	4.12	Much	1
am apprehensive to raise hand during recitation.	3.79	Much	6
keep silent if I cannot answer questions raised by the teacher.	3.92	Much	3
try to recite even if uncertain to the correct answer.	3.75	Much	7
perform well because of adoration to teacher.	3.84	Much	4
arrive early in the school and ready to learn	3.81	Much	5
show eagerness to learn more.	3.66	Much	8
show indifference if not interested to the lesson.	3.03	Moderate	10
show interest in learning different subjects.	3.94	Much	2
like reading during free time.	3.53	Much	9
Overall WX	3.74	Much	

Findings disclose that pupil’s performance is affected much by the heterogeneous grouping with respect to social relations. This is attributed to the fact the when the activity is done by group, the pupils show interest in learning different subjects and keep silent if they cannot answer the questions raised by the teachers. This is similar with the statements of Hoon (2010) that heterogeneous ability groups benefit students by improving their attitudes toward each other and school work, building a sense of community within the classroom, and providing valuable social and academic lessons. Advantages of mixed grouping specific to low-ability students include having the opportunity to socialize and learn from students with average or high abilities and a decreased chance of feeling stigmatized which may help increase their motivation to learn

Table 7 presents the summary on the extent of effects of heterogeneous grouping on the performance of grade three pupils as perceived by themselves with respect to the different aspects.



Table 7. Summary on the Extent of Effects of Heterogeneous Grouping on the Performance of Grade Three Pupils as Perceived by Themselves with Respect to the Different Aspects

Aspects	WX	VI	R
Intellectual Ability	3.82	Much	3
Study Habits	3.85	Much	2
Emotional Stability	3.88	Much	1
Social Relations	3.74	Much	4
Overall WX	3.82	Much	

It can be seen from the table that with respect to the different aspect of heterogeneous grouping, out of the four aspects, Emotional Stability got the highest overall weighted mean of 3.88 verbally interpreted Much; followed by Study Habits and Intellectual Ability with a computed overall weighted means of 3.85 and 3.82 respectively. However, Social Relations got the overall weighted mean of 3.74 and verbally interpreted Much. The overall weighted mean attained is 3.82 verbally interpreted Much.

Findings reveal that the heterogeneous grouping affected much the performance of grade three pupils. This could only mean that the heterogeneous grouping gives advanced students a chance to mentor their peers. All members of the group may interact to help each other understand the concepts being taught.

This further means that when group, students were given a chance to be with other classmates with similar abilities and is put in the same cooperative learning group. This mixed group may consist of students of varying ages, educational levels, interest and special needs. This is similar with the study of Neihart (2017) that heterogeneous grouping has the potential to avoid or reduce the creation of the stigmas. It is less likely that students in heterogeneous ability groups will identify and compare the abilities of other students outside their groups and label them accordingly.

**Significant Difference on the Extent of Effects of Heterogeneous Grouping on the Performance of Grade Three Pupils as Perceived by Themselves with Respect to the Cited Aspects in Terms of Their Profile**

Table 8. Result of the F-test on the Significant Difference on the Extent of Effects of Heterogeneous Grouping on the Performance of Grade Three Pupils as Perceived by Themselves with Respect to the Cited Aspects in Terms of their Profile

Variables	F-value	p-value	Decision	Verbal Interpretation
<b>Sex</b>				
Intellectual Ability	.164	.683	Accepted	Not Significant
Study Habits	2.619	.102	Accepted	Not Significant
Emotional Stability	.025	.881	Accepted	Not Significant
Social Relations	.674	.994	Accepted	Not Significant
<b>Sibling Position</b>				
Intellectual Ability	2.614	.054	Accepted	Not Significant
Study Habits	1.593	.194	Accepted	Not Significant
Emotional Stability	1.203	.303	Accepted	Not Significant
Social Relations	.935	.335	Accepted	Not Significant
<b>Monthly Family Income</b>				
Intellectual Ability	4.386	.003	Rejected	Significant
Study Habits	4.939	.009	Rejected	Significant
Emotional Stability	4.139	.005	Rejected	Significant
Social Relations	5.936	.007	Rejected	Significant
<b>Number of Children in the family</b>				
Intellectual Ability	4.281	.009	Rejected	Significant
Study Habits	5.604	.037	Rejected	Significant
Emotional Stability	7.456	.022	Rejected	Significant
Social Relations	5.934	.007	Rejected	Significant
<b>Father's Educational Attainment</b>				
Intellectual Ability	5.342	.043	Rejected	Significant
Study Habits	6.430	.003	Rejected	Significant
Emotional Stability	4.365	.008	Rejected	Significant
Social Relations	6.934	.022	Rejected	Significant
<b>Mother's Educational Attainment</b>				
Intellectual Ability	6.454	.000	Rejected	Significant
Study Habits	4.739	.000	Rejected	Significant
Emotional Stability	2.314	.045	Rejected	Significant
Social Relations	5.894	.047	Rejected	Significant

Table 8 presents the result of the F-test on the significant difference on the extent of effects of heterogeneous grouping on the performance of grade three pupils as perceived by themselves with respect to the cited aspects in terms of their profile.

It can be seen from the table that when statistically computed, the significant difference on the effects of heterogeneous grouping on the performance of grade three pupils with respect to intellectual ability, study habits, emotional stability and social relations in terms of sex and sibling position, yielded p-values much more than .05 level of significance. This means that the null hypothesis is accepted, however, when grouped with respect to intellectual ability, study habits, emotional stability and social relations in terms of monthly family income, number of children in the family, fathers' and mothers' educational attainment, the null hypothesis is rejected since p-values is less than .05 probability value.

This only mean that monthly family income, number of children in the family and parents educational attainment with respect to intellectual ability, study habits, emotional stability and social relations has significant influence on the effects of heterogeneous grouping on the their performance; however, sex and sibling position with respect to intellectual ability, study habits, emotional stability and social relations has nothing to do with the effects of heterogeneous grouping on their performance. This only connote that the higher the income the family have, the fewer the number of children in the family, and the higher the educational attainment the parents have, the higher is the effect of heterogeneous grouping to the performance of the Grade three pupils.

This is in consonance with the conclusions of Villagracia (2016) that pupils' perception on the extent of effects of heterogeneous classes with respect to emotional and social skills differ significantly when they are grouped according to sex. Similarly, the pupils' perception on the extent of effects of heterogeneous classes with respect to all aspects differ significantly when they are grouped according to monthly family income. Perceived effects of heterogeneous classes with respect to personality, study habits, and intellectual ability are correlated to the pupils' academic performance.

### Level of Academic Performance of the Respondents as Revealed by their Average Grades

Table 9 presents the level of academic performance of the respondents as revealed by their average grades.

*Table 9. Level of Academic Performance of the Respondents as Revealed by their Average Grades*

<i>Grade</i>	<i>Verbal Interpretation</i>	<i>Frequency</i>	<i>Percent</i>	<i>Rank</i>
90 – 100	Outstanding	83	15	3
85 – 89	Very Satisfactory	199	36	1
80 – 84	Satisfactory	193	35	2
75 – 79	Fairly Satisfactory	75	14	4
Total		550	100	
Highest Grade		91		
Lowest Grade		78		
Mean		86.08(VS)		
Standard Deviation		3.481		

It can be noted from the table that the academic performance of the respondents as revealed by their average grades indicated that among the 550 pupils, there are 199 or 36 percent obtained a grade between 85-89 verbally interpreted as Very Satisfactory performance; followed by 193 or 35 percent and 83 or 15 percent who got a grade between 80-84 and 90-100 verbally interpreted Satisfactory and Outstanding respectively. The lowest frequency of 75 or 14 percent was obtained by a grade between 75-79 verbally interpreted as Fairly Satisfactory. The highest grade obtained is 91 while the lowest grade obtained is 78. The mean score attained is 86.08 and standard deviation of 3.481.

Results reveal that the pupils have a very satisfactory performance. This implies that regardless of the extensive and rigid implementation of heterogeneous grouping is, they still maintain a good academic performance. This is supported by the discussion of Poole (2010) that the two categories within class-ability groups are composed of students with a broader range of abilities. Students of high, average and low-ability are grouped together for the purpose of working towards a common goal. Conversely, a homogenous ability group is composed of student with the same or similar abilities. Both methods of grouping can be associated with positive and negative effects on students' academic achievement and social development. They do not however, affect each student in the same way.

### Significant Relationship Between the Perceived Extent of Effects of Heterogeneous Grouping and Pupils' Academic Performance

Table 10 presents the result of the test on the significant relationship between the perceived extent of effects of heterogeneous grouping and pupils' academic performance.

As shown in the table, the computation for the test on the correlation between the extent of effects of heterogeneous grouping with respect to intellectual ability, study habits, emotional stability and social relations and the academic performance of the pupils, reflected p-values lower than .05 probability values.

This means that the null hypothesis is rejected. Findings imply that there is a marked correlation between the level of performance and extent of effects of heterogeneous groupings with respect to intellectual ability, study habits, emotional stability and social relations. Findings imply that academic performance of pupils is associated with the perceived effects of heterogeneous grouping.

Table 10. *Result of the Test on the Significant Relationship Between the Perceived Extent of Effects of Heterogeneous Grouping and Pupils' Academic Performance*

<i>Aspects</i>	<i>r-value</i>	<i>p-value</i>	<i>Decision</i>	<i>Verbal Interpretation</i>
Intellectual Ability	.874	.004	Rejected	Significant
Study Habits	.588	.022	Rejected	Significant
Emotional Stability	.883	.021	Rejected	Significant
Social Relations	.854	.003	Rejected	Significant

This is parallel with the conclusions of the study of Gondra (2016), that pupils' academic performance is significantly associated with the study habits of pupils with respect to learning preference, task accomplishment and class participation.

## Conclusion

Based on the findings, the following conclusions are drawn: Monthly family income, number of children in the family and parents educational attainment are significant on the perceived effects of heterogeneous grouping on pupils' performance. Heterogeneous grouping is related to the academic performance of pupils.

In the light of the findings, the following recommendations are hereby offered: School Administrators may conduct massive information dissemination to parents on heterogeneous grouping of their children. Teachers may always tailored their classroom rules around the general policies of the school and the practice of heterogeneous grouping of the pupils. Pupils may be exposed to more meaningful learning activities in the classroom to enhance their emotional stability and social relations. Pupils should be encouraged to identify their learning preferences so as to improve their study habits and academic performance. Similar studies may be conducted considering other variables.

## References

- Aluvalu, R. (2013) "Handling Classrooms with Students Having Heterogeneous Learning Abilities" College of Engineering, Hyderabad, Telangana, India.
- Barret, Kristin, "The Effect of Homogenous Versus Heterogeneous Reading Achievement Groups on 4th Graders Reading Comprehension". Goucher College, 2017
- Brainbridge, D. (2018), "Research Summary: Heterogeneous Grouping National Middle School Association", Retrieved from <http://www.rmsa.org>.
- Corpuz, C. (2016) "Teachers Professional Growth", Education Quarterly Vol. XII, No. 4, Quezon City: University of the Philippines.
- Gache, E. (2010). "How to Handle Slow Learners in Our Class", The Modern Teacher, Volume 59, No. 07.
- Gondra, T. (2016). "Study Habits and Academic Performance of Grade Six Pupils". Unpublished Masters' Thesis, Tomas Claudio Colleges.
- Hoon, T. S., Chong, T. S., & Ngah, N. A. B. (2010). "Effect of an Interactive Courseware in the Learning of Matrices", Educational Technology and Society, The Hongkong Institute of Education.
- Lewis, P. (2018). "Different Nations in the Mixed-Ability Group", International Reading Research Quarterly.
- Mendezabal, M. (2013). "Study Habits and Attitudes: The Road to Academic Success". Tuguegarao City: University of Saint Louis, Cagayan.
- Navarette, M. (2017) "Effects of Three Shift Structured Classes on the Performance of Grade Six Pupils in Peñafrancia Elementary School". Unpublished Masters' Thesis, Tomas Claudio Colleges, 2017.
- Neihart M. (2017) "The Socio Effective Impact of Acceleration and Ability Grouping Recommendations for Best Practice".
- Patron, Ida Y. (2013). Effective Classroom Management and Making the First Day of Classes a Significant to the Learners, Great Books Publishing Quezon City,
- Picciotto H., (2017) "Notes on Heterogeneous Classes, Retrieved from: <http://www.picciotto.org/math-ed/teaching/heterogeneous.pdf>.
- Poole, M. (201). "Heterogeneous Grouping". Journal of Experimental Psychology.
- Ruffa, E. (2015). "Learning Styles of Learners", The Modern Teacher, Volume 27, No. 01.
- Salvador, S., Tolentino-Baysa, G., & Fua-Geronimo, E. (2010). Fundamentals of Business Research: Thesis Writing, Allen Adrian Books Inc.
- Singer, A. J. (2017). Social Studies for Secondary Schools, New York City.



Thomas, E. (2014). "Effects of Ability Grouping on Math Achievement of Third Grade Students". Paper presented at Georgia Educational Research Association Annual Conference Savannah, Georgia.

Tulio, D. (2010). *Foundations of Education I*, Second Edition, Mandaluyong City, National Bookstore.

Ventura, D. (2013). "Cooperative Learning", *The Modern Teacher*, Volume 61, No. 08.

Vijaya, K. R. (2012). "A Case Study of Cooperative Learning and Its Impact Among First Year Engineering Students", Tamil Nadu State, India.

Villagracia, C. (2017). "Effects of Heterogeneous Class on the Academic Performance of Grade Five Pupils in Francisco Elementary School" Unpublished Masters' Thesis, Tomas Claudio Colleges, Morong, Rizal.

Zhang, Y. (2011). "The Determinants of National College Entrance Performance in China", China State University.

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