Factors Affecting Performance in General Mathematics of Grade Eleven Students in Talumpok Integrated School: Basis for Intervention Activities
An Action Research

RONNIE R. LANDICHO
Secondary School Teacher I
Talumpok Integrated School

Abstract: This study aims to determine the Factors Affecting Performance in General Mathematics of Grade Eleven students in Talumpok Integrated School: Basis for Intervention Activities to improve academic performance in the subject.

This action research covered the analysis of data gathered through a research-made questionnaire focusing on factors affecting student performance in General Mathematics like student-related factors such as; interest and study habits, and teacher-related factors such as; personality traits, teaching skills, and instructional materials used by the teacher.

The respondents of the study are Grade Eleven STEM and ICT students with the total of 28 participants, 19 are females and 9 are males. Majority of the respondents are 17 years old which is 67.86 percent of the total sample size, males which is also 67.86 percent, and 71.43 percent of the respondents are from ICT strand.

The factors that affect student performance are study habit and interest which are both under student-related factors. Propose action is supplementary activities since respondents showed low interest in the subject. Supplementary activities that will practice good study habits such as games and other related activities that will boost student interest in the subject. In addition, the lack of workbook/textbooks as instructional materials highly affects the academic performance of the respondents.

The research did not include parents, and even the other subject teachers, the guidance counselor, as well as the principal of the school, as respondents. The study did not cover the other factors affecting student performance outside the school. The research is limited to the honest responses of the respondents to the items of the questionnaire.

The result of the action research concerning on the factors affecting student performance in General Mathematics will highly contribute in determining the best action that could be done to improve the academic performance in General Mathematics subject in grade eleven. Moreover, the result of this research will be useful for the subject teacher in formulating intervention activities and other supplementary materials improve student performance in mathematics. This research is a heuristic.

This study employed the descriptive method of research to determine the factors affecting student performance in General Mathematics: Basis for intervention activities.

Keywords: Ranking, Weighted Mean, Percentage, Interest, Study Habits, Teacher Traits, Teaching Skills And Teaching Materials.

I. INTRODUCTION

Mathematics is generally considered as the most important subject at school levels all over the world. All the major commissions and committee report on education since independence emphasized the importance of mathematical knowledge and its utilitarian values. In spite of all these reports and recommendation still in the Philippines, many students struggle with mathematics and become disaffected as they constantly bump in two obstacles to engagement. It is an agreeable fact that, amongst the subject taught in schools, mathematics is considered as one of the toughest subjects. But the reason behind this might be different in different situations. Lot more studies were conducted in this area and researches come up with their recommendations as well. But still, the problem of low performance in mathematics appears to be pertinent in all levels of school education. This is a serious issue to be tackled possibly by the teachers concerned and even the Department of Education.

During my experience of teaching at Talumpok Integrated School, I got an opportunity to see how my students in grade eleven are performing. The interaction with the students, also gave me a chance to verify how they are performing in the subject. Then I thought of finding out
various reasons for their low performance in mathematics. Thus I decided to conduct this action research.

II. BACKGROUND OF THE STUDY

Many studies and reports already come up with various reasons for Low performance in mathematics. Among those are student-related factors such as interest and study habits towards mathematics and teacher-related factors such as, personality traits, teaching skills, and instructional materials displayed by the teacher.

As a classroom teacher it is my obligation to ensure that learning takes place among my students through appropriate strategies and develop deep sense of interest in mathematics. This study highlights student and teacher related factors which contribute to the academic achievement of students. From the discussion with the Principal, Teachers and Students, interpretation of the assessment result and exposure gained through classroom observation helped me to operationally concentrate and study on some indicators on student related factors like interest and study habits of the students, and teacher related factor such as personality traits, teaching skills and instructional materials displayed by the mathematics teacher.

Many researchers found out that, the attitude towards study of mathematics had the highest correlation with mathematics achievement. The study conducted by Zadoo and Rana (2016), came up with the finding that study habits and academic achievement are possibly correlated.

Hadi and Al-Ommar (2015) while studying about different factors contributing academic achievement, found out that student level variables (prior achievement and self concept) were more important than school level factors (school gender, number of students in school, and teacher’s satisfaction).

In this era of globalization and technological revolution, education is considered as a first step for every human activity. It plays a vital role in the development of human capital and is linked with an individual’s well-being and opportunities for better living. It ensures the acquisition of knowledge and skills that enable individuals to increase their productivity and improve their quality of life. This increase in productivity also leads towards new sources of earning which enhances the economic growth of a country. The quality of students’ performance remains on top priority for educators. It is meant for making a difference locally, regionally, nationally and globally. The students’ performance (academic achievement) plays an important role in producing the best quality graduates who will become great leader and manpower for the country thus responsible for the country’s economic and social development (Ali et.al, 2016).

Educators, trainers, and researchers have long been interested in exploring variables contributing effectively for quality of performance of learners. These variables are inside and outside school that affect students’ quality of academic achievement. These factors may be termed as student factors, family factors, school factors and peer factors. There is a range of factors that affect on the quality of performance of students (Waters &Marzano, 2016). A series of variables are to be considered when to identify the affecting factors towards quality of academic success. Identifying the most contributing variables in quality of academic performance is a very complex and challenging job.

The students in public schools belong to a variety of backgrounds depending upon their demography. This diversity is much vast and complex as ever before in Philippine culture. Teachers also affect the student performance. The guidance from the parents and the teachers indirectly affect the performance of the students (Hussain, 2016).

According to Effandi and Normah (2016), a student needs to think and make decisions using appropriate strategies to solve mathematical problems. They added that students’ success in achieving their goals encourage them to develop positive attitudes towards mathematics and other problem solving activities. Willingness to solve mathematical problems compared to average and weak students.

Students’ commitment in mathematics refers to students’ motivation to learn mathematics, their confidence in their ability to succeed in mathematics and their emotional feelings about mathematics. Students’ commitment in mathematics plays a key role in the acquisition of math skills and knowledge. Education Matters (2015).

According to Effandi and Normah (2016), students’ attitudes towards mathematics are very much related to their attitude towards problem solving in general. They added that negative attitudes need to be overcome, so that later in life, students will not suffer from poor problem-solving skills. It is important to master problem solving skills as these skills are essential for dealing competently with our everyday life.

Therefore, students’ interest in mathematics is believed to play a significant role in mathematics achievement and might be one of the factors that influence students in mathematics achievement.

Keeping in view all these discussions, researcher conducted this study to examine the effect of different factors on the students’ performance of grade eleven in Talumpok Integrated School.

Thus, the result of this action research will be the basis of the researcher for the best intervention activities to be made such as formulating supplementary activities generating instructional materials for the improvement of the student’s performance in General Mathematics specifically for Grade eleven level.
III. STATEMENT OF THE PROBLEM

This study aims to determine the Factors Affecting Performance in General Mathematics of Grade Eleven students in Talumpok Integrated School: Basis for Intervention Activities to increase academic performance.

Specifically, this study sought to answer the following questions;

Among the factors, what could possibly affect the performance of the respondents in General Mathematics:
1. Student-related factors;
   1.1. Interest;
   1.1b. Study habits;
2. Teacher-related factors;
   2.1. Personality traits;
   2.2. Teaching skills;
2.3. Instructional materials; and
3. What intervention activity could be done to increase academic performance in General Mathematics of Grade Eleven students in Talumpok Integrated School in S.Y. 2019-2020?

IV. SCOPE, DELIMITATION, AND LIMITATION OF THE RESEARCH

This action research covered the analysis of data gathered through questionnaire on factors affecting student performance in General Mathematics. The respondents of the study are Grade Eleven students in Talumpok Integrated School for the S.Y. 2019-2020 with the total of 28 respondents, 9 are females and 19 are males.

However, the research did not include parents, and even the other subject teachers, the guidance counselor, as well as the principal of the school, as respondents. The study did not cover the other factors affecting student performance outside the school.

The research is limited to the responses of grade eleven students of Talumpok Integrated School. The study was limited also to the honest responses of the respondents to the items of the question.

V. SIGNIFICANCE OF THE RESEARCH

The result of the action research concerning on the factors affecting student performance in mathematics will highly contribute in determining the best action that could be done to improve the achievement in General Mathematics in grade eleven level. The result of this study will greatly benefit the students, mathematics teachers and the school. The result will show the factor/s that highly contribute to student performance that could be used as basis of the mathematics teachers in choosing and implementing strategies that best suit to student needs. Moreover, the result of this research will be useful in formulating intervention activities to improve student performance in mathematics.

Furthermore, the future researchers may use this piece of work as a reference regarding factors affecting student performance and probably as a guiding tool in making another research project as part of their related studies.

VI. FRAMEWORK OF THE STUDY

Factors affecting student’s performance are classified into two, the student-related factors such as interest and study habits and teacher-related factors include personality traits, teaching skills and instructional materials displayed by the mathematics teacher.

For better understanding of this research, the researcher provided the conceptual framework, including the conceptual model that shows the variables taken into consideration.

Figure 1: Research Paradigm on Factors Affecting Student Performance in General Mathematics in Talumpok Integrated School:

- Basis for Intervention Activities

Figure 1 shows the paradigm of the study. The researcher follows the input-process-output process to attain the objectives of the action research. The input consists the factors affecting student performance which are student-related factors and teacher related factors. Process includes the survey questionnaire as a tool to know the factors affecting student performance in General Mathematics. Moreover, the output entails the proposed intervention activities to improve academic performance in the subject.

VII. PROBLEM ANALYSIS

- Research Design

This study employed the descriptive method of research to determine the factors affecting student performance in mathematics. Best (2003) describes the descriptive research as a design for investigation to gather information about the present conditions of relationship that exist, practices that prevail, beliefs and processes that are going on, effects that are being felt, or trends that are developing. This design fits this study as it assessed the performance of the students.
Subject of the Study
There were 28 student participants selected from grade eleven STEM and ICT strands in Talumpok Integrated School in the S.Y. 2019-2020.

Data Gathering Procedures
A researcher-made questionnaire was utilized to gather data on factors affecting student’s performance in General Mathematics.

Data Analysis/Statistical Treatment
The researcher utilized simple statistical tool. To quantify the responses of the respondents, the researcher used weighted mean. Likert scale is used in the responses of respondents on factors affecting student performance in General Mathematics with a verbal interpretation of the following:

<table>
<thead>
<tr>
<th>Options</th>
<th>Scale/Range</th>
<th>Verbal Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4.50-5.00</td>
<td>Always</td>
</tr>
<tr>
<td>4</td>
<td>3.50-4.49</td>
<td>Often</td>
</tr>
<tr>
<td>3</td>
<td>2.50-3.49</td>
<td>Sometimes</td>
</tr>
<tr>
<td>2</td>
<td>1.50-2.49</td>
<td>Rarely</td>
</tr>
<tr>
<td>1</td>
<td>1.00-1.49</td>
<td>Never</td>
</tr>
</tbody>
</table>

A data matrix was prepared which was programmed for the respondent’s assessment on factors affecting student performance among grade eleven students of Talumpok Integrated School.

Weighted Mean.
This was used to determine the overall average of responses of the study respondents. It’s product of the frequency of the responses.

Ranking. This was used to determine which item in the questionnaire was first in the assessment, which is second and so on.
Frequency. In this research, it was used to determine the actual number of the respondents to a specific item in the questionnaire. It also referred to the number of all tally marks for each category
Percentage. This was used to determine the relationship between two magnitudes especially as part of a whole. This is the numerical analysis to describe and compare the magnitudes of the given data. It could be defined as part per hundred part of the total sampling population.

VIII. FORMULATING INFERENCE
The factors affecting student performance in mathematics are student-related factors such as interest and study habits, and teacher-related factors which includes personality traits, teaching skills and instructional materials.

IX. ACTION TAKEN
1. Profile of the Respondents
Interpretation and analysis of the data require information about the profile of the student-respondents in terms of age, sex and their chosen strand.

1.1. Age. Table 1 shows the distribution of the respondents according to age.

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>7</td>
<td>25.00</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>19</td>
<td>67.86</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>2</td>
<td>7.14</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

It can be seen from the table that majority of the respondents are 17 years old comprising of 19 or 67.86 percent of the total sample, followed by students who are 16 years of age garnering a percentage of 25.00 percent. The third on the rank are those with age of 18 with 2 respondents or 7.14 percent of the total sample. It simply implies that most of the students in grade eleven are in the age of 17. According to Bloom (2006), the older students generally focus “on specific problems and practical applications of ideas”. These students work best when they can reflect on what they learn and apply it to other activities.

1.2. Sex. Table 2 shows the distribution of respondents based on gender.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>19</td>
<td>67.86</td>
</tr>
<tr>
<td>Female</td>
<td>9</td>
<td>32.14</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100</td>
</tr>
</tbody>
</table>

It can be noted from the table that 19 or 67.86 percent of the respondents were male and the remaining 9 or 32.14 percent were female. It can be deduced that there were more male rather that female respondents. It simply implies that the number of male students in grade eleven in Talumpok Integrated School is greater than the female.

1.3. Chosen Strand. Table 3 shows the distribution of respondents according to their chose strand whether a STEM or ICT.

<table>
<thead>
<tr>
<th>Strand</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEM</td>
<td>8</td>
<td>28.57</td>
</tr>
<tr>
<td>ICT</td>
<td>20</td>
<td>71.43</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100</td>
</tr>
</tbody>
</table>
It can be noticed that 20 out of 28 or 71.43 percent of the total respondents came from ICT strand. While only 8 respondents or 28.57 percent were from the STEM strand. It only implies that majority of the grade eleven students were from ICT strand.

2. Factors Affecting Student Performance in General Mathematics

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The factors affecting student performance are classified into two, the student related factors and teacher-related factors.

I. Student-related Factor

A. Interest. Table 5 shows the indicating factors on interest among students in mathematics.

<table>
<thead>
<tr>
<th>A. Interest</th>
<th>Weighted Mean</th>
<th>Rank</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I make myself prepared for the math subject.</td>
<td>2.38</td>
<td>4</td>
<td>Rarely</td>
</tr>
<tr>
<td>2. I listen attentively to the lecture of my math teacher.</td>
<td>2.84</td>
<td>3</td>
<td>Sometimes</td>
</tr>
<tr>
<td>3. I actively participate on classes’ discussion, answering exercises and/or clarifying things I did not understand.</td>
<td>2.28</td>
<td>5</td>
<td>Rarely</td>
</tr>
<tr>
<td>4. I want to get good grades in test, quizzes, written works and performance.</td>
<td>4.63</td>
<td>1</td>
<td>Always</td>
</tr>
<tr>
<td>5. I get frustrated when the discussion is interrupt or the teacher is absent.</td>
<td>3.06</td>
<td>2</td>
<td>Sometimes</td>
</tr>
</tbody>
</table>

It can be noticed that the interest of the students is to always get good grades in test, quizzes, written works and performance which obtained an average weighted mean of 4.63 and ranked first. Second in rank is students get frustrated when the discussion is interrupted or the teacher is absent with the average weighted mean of 3.06. Next to it is students rarely listen attentively to the lecture of my math teacher with the average weighted mean of 2.84. The fourth in rank is students rarely prepared for the math subject which obtained the average weighted mean of 2.38. On the other hand, students participates rarely on class discussions, answering exercises and/or clarifying things they did not understand with the average weighted mean of 2.28 and ranked fifth. It only means that respondents were not interested to the subject, has a poor commitment in General Mathematics and not motivated to learn the subject. Education Matters (2008), students’ commitment in mathematics refers to students’ motivation to learn mathematics, their confidence in their ability to succeed in mathematics and their emotional feelings about mathematics. Students’ commitment in mathematics plays a key role in the acquisition of math skills and knowledge (Education Matters 2008). This means that interest is a very important factor in order to achieve academic performance in General Mathematics.

B. Study Habits. Table 6 shows the indicating factors on study habits among students in General Mathematics.

<table>
<thead>
<tr>
<th>B. Study Habits</th>
<th>Weighted Mean</th>
<th>Rank</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I do my assignments regularly.</td>
<td>2.34</td>
<td>8</td>
<td>Rarely</td>
</tr>
<tr>
<td>2. I exert more effort when I do difficult assignments.</td>
<td>1.47</td>
<td>10</td>
<td>Never</td>
</tr>
<tr>
<td>3. I spend my vacant time in doing my assignments or studying my lessons.</td>
<td>2.46</td>
<td>5</td>
<td>Rarely</td>
</tr>
<tr>
<td>4. I study the lessons I missed if I was absent from the class.</td>
<td>2.87</td>
<td>2</td>
<td>Sometimes</td>
</tr>
<tr>
<td>5. I study and prepare for quizzes and tests.</td>
<td>3.48</td>
<td>1</td>
<td>Sometimes</td>
</tr>
<tr>
<td>6. I study harder to improve my performance when I get low grades.</td>
<td>2.51</td>
<td>4</td>
<td>Sometimes</td>
</tr>
<tr>
<td>7. I spend less time with my friends during school days to concentrate more on my studies.</td>
<td>2.37</td>
<td>6.5</td>
<td>Rarely</td>
</tr>
<tr>
<td>8. I prefer finish my studying and my assignments before watching any television program.</td>
<td>2.37</td>
<td>6.5</td>
<td>Rarely</td>
</tr>
<tr>
<td>9. I see to it that extracurricular activities do not hamper my studies.</td>
<td>2.53</td>
<td>3</td>
<td>Sometimes</td>
</tr>
<tr>
<td>10. I have specific place of study at home which I keep clean and orderly.</td>
<td>2.17</td>
<td>9</td>
<td>Rarely</td>
</tr>
</tbody>
</table>

Among the indicating factors on study habits, the first in rank is respondents sometimes study and prepare for quizzes and tests with the weighted mean of 3.48. Second in rank is students sometimes study the lessons they missed if they were absent from the class with the weighted mean of 2.87. However, students also sometimes see to it that extracurricular activities do not hamper their studies with the weighted mean of 2.53 and ranked third. Next to it is sometimes students study harder to improve their performance when they get low grades which had an average weighted mean of 2.51. It also revealed that fifth in rank is students rarely spend their vacant time in doing their
assignments or studying their lessons which obtained 2.46 weighted mean. While item numbers 7 and 8 indicating factors obtained the same weighted average of 2.37 and at 6.5 in rank. Then ranked 8th is students rarely do their assignments regularly which gained weighted mean of 2.34. Second to the last with the computed weighted mean of 2.17 is item number 10 which is rarely students have specific place of study at home which they keep clean and orderly. And last, students never exert more effort when they do difficult assignments. This obtained the weighted mean of 1.47.

It only entails that they are not practicing good study habits and have no positive attitude towards General Mathematics to improve their performance. According to Effandi and Normah (2009), students’ attitude towards their lessons which obtained 2.46 weighted mean. While item numbers 7 and 8 indicating factors obtained the same weighted average of 2.37 and at 6.5 in rank. Then ranked 8th is students rarely do their assignments regularly which gained weighted mean of 2.34. Second to the last with the computed weighted mean of 2.17 is item number 10 which is rarely students have specific place of study at home which they keep clean and orderly. And last, students never exert more effort when they do difficult assignments. This obtained the weighted mean of 1.47.

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II. Teacher-related Factor

A. Personality Traits. Table 7 shows indicators on personality traits possessed by the General Mathematics teacher.

<table>
<thead>
<tr>
<th>A. Personality Traits</th>
<th>Weighted Mean</th>
<th>Rank</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Has a good relationship to students and teachers.</td>
<td>4.97</td>
<td>1</td>
<td>Always</td>
</tr>
<tr>
<td>2. Show smartness, confidence and firmness in making decisions.</td>
<td>4.52</td>
<td>2</td>
<td>Always</td>
</tr>
<tr>
<td>3. Imposes proper discipline and is not lenient in following the prescribed rules.</td>
<td>4.42</td>
<td>3</td>
<td>Often</td>
</tr>
<tr>
<td>4. Has an appealing personality with good sense of humor.</td>
<td>4.24</td>
<td>4</td>
<td>Often</td>
</tr>
<tr>
<td>5. Is open to suggestions and opinions and is worthy of praise.</td>
<td>4.18</td>
<td>5</td>
<td>Often</td>
</tr>
</tbody>
</table>

It can be noted that the teacher in General Mathematics in grade eleven has a good relationship with students and teachers which obtained the highest average weighted mean of 4.97 and ranked first. Teacher also affects the student performance. The guidance from the parents and the teachers indirectly affect the performance of the students (Hussain, 2016). According to Effandi and Normah (2009), a student needs to think and make decisions using appropriate strategies to solve mathematical problems. They add that students’ success in achieving their goals encourage them to develop positive attitude towards mathematics and other problem solving activities. Second in rank is the teacher always shows smartness, confidence and firmness in making decisions which obtained 4.52 weighted mean. Next is the teacher always imposes proper discipline and is not lenient in following the prescribed rules with the computed weighted mean of 4.42. While fourth in rank is the teacher always has an appealing personality with good sense of humor which gained a weighted mean of 4.24.

Moreover, the General Mathematics teacher should always be open to suggestions and opinions. Thus, this indicating factor obtained the lowest average weighted mean of 4.18 and ranked fifth. This shows that the mathematics teacher should ask students some suggestions and opinions and maintain a good relationship among students and other teachers.

B. Teaching Skills. Table 8 shows indicating factors on teaching skills displayed by the General Mathematics teacher.

<table>
<thead>
<tr>
<th>B. Teaching Skills</th>
<th>Weighted Mean</th>
<th>Rank</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explains the objectives of the lesson clearly at the start of each period.</td>
<td>4.54</td>
<td>1</td>
<td>Always</td>
</tr>
<tr>
<td>2. Has the mastery of the subject matter.</td>
<td>4.39</td>
<td>2</td>
<td>Often</td>
</tr>
<tr>
<td>3. Is organized in presenting subject matters by systematically following course outline.</td>
<td>4.30</td>
<td>4</td>
<td>Often</td>
</tr>
<tr>
<td>4. Is updated with present trends, relevant to the subject matter.</td>
<td>4.27</td>
<td>5</td>
<td>Often</td>
</tr>
<tr>
<td>5. Uses various strategies, teaching aids/devices and techniques in presenting the lessons.</td>
<td>4.36</td>
<td>3</td>
<td>Often</td>
</tr>
</tbody>
</table>

Based on the data presented, item number 1 got the highest average weighted mean of 4.54 and ranked first. It means that the mathematics teacher always explains the objectives of the lesson clearly at the start of each period. This is followed by the second statement with an average weighted mean of 4.39 which shows that the teacher has the
mastery of the subject matter. Third in rank is the teacher think of other various strategies, teaching aids/devices and techniques to be used in presenting the lessons since it obtained the average weighted mean of 4.36. Then teacher is organized in presenting subject matters by systematically following course outline with the weighted mean of 4.30. Thus, lowest in rank is the teacher is often updated with present trends, relevant to the subject matter which obtained the average weighted mean of 4.27.

These indicators would possibly help students improve their academic achievement in mathematics and ensure quality education. The quality of students’ performance remains at top priority for educators. It is meant for making a difference locally, regionally, nationally and globally. The students’ performance (academic achievement) plays an important role in producing the best quality graduates who will become great leader and manpower for the country thus responsible for the country’s economic and social development (Ali et.al, 2009). Therefore, teaching skills of teacher would have positive impact on student’s performance in mathematics.

C. Instructional Materials. Table 9 shows the indicators on instructional materials used by the General mathematics teacher.

<table>
<thead>
<tr>
<th>C. Instructional Materials</th>
<th>Weighted Mean</th>
<th>Rank</th>
<th>Verbal Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Mathematics teacher uses...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Marker and whiteboard in explaining the lessons</td>
<td>4.45</td>
<td>1</td>
<td>Always</td>
</tr>
<tr>
<td>2. Workbooks/textbooks</td>
<td>4.00</td>
<td>5</td>
<td>Never</td>
</tr>
<tr>
<td>3. PowerPoint presentations</td>
<td>3.58</td>
<td>2</td>
<td>Often</td>
</tr>
<tr>
<td>4. Visual aids</td>
<td>2.29</td>
<td>3</td>
<td>Rarely</td>
</tr>
<tr>
<td>5. Mathematics materials, tools and equipment</td>
<td>2.15</td>
<td>4</td>
<td>Often</td>
</tr>
</tbody>
</table>

In can be noted that the instructional material always used by the mathematics teacher is chalk and blackboard in explaining the lessons which got an average weighted mean of 4.45 and topped in rank. This is followed by the third indicator which is PowerPoint presentations with the average weighted mean of 3.58. Third in rank is the teacher rarely used visual aids with the weighted mean of 2.29. Next to it is the teacher rarely used mathematics materials, tools and equipment which gained 2.15 weighted mean. Moreover, the table shows that workbook/textbooks obtained the lowest weighted average of 1.00. This means that the mathematics teacher often used the marker and whiteboard and PowerPoint in presenting the lesson. In addition, the use of workbook/textbooks and other instructional materials, tools and equipment would possibly a great help to obtain the desired level of academic performance in General Mathematics.

X. FINDINGS

The analysis and interpretation yielded the following findings:

1. Demographic Profile of the Respondents

The following were the findings of the study.

1.1. Age. Majority of the respondents were 17 years of age comprising of 17 students, followed by students who were 16 years old which composed of 9 respondents, then the third are students who were 18 which comprises only 2 respondents.

1.2. Sex. The study consists of 19 or 67.86 percent males and 9 or 32.14 percent females.

1.3. Chosen Strand. Majority of the respondents consisting of 20 or 71.43 percent came from ICT strand.

2. Factors Affecting the Performance of the Respondents in General Mathematics.

2.1. Student-related factors

2.1a. Interest

Getting good grades in test, quizzes, written works and performance obtained the highest weighted mean of 4.63 and active participation on classes’ discussion, answering exercises and/or clarifying things they did not understand got the lowest weighted mean of 2.28.

2.2. Study Habits

Studying and preparing for quizzes and tests has the highest weighted mean of 3.48 while exerting more effort when doing difficult assignments obtained 1.47 weighted mean which is the lowest in rank.

2.2. Teacher-related Factors

2.2a. Personality Traits

Good relationship to students and teachers obtained the highest weighted mean of 4.97 on the other hand open to suggestions and opinions and worthy of praise got the lowest weighted mean of 4.18.

2.2b. Teaching Skills

Explaining the objectives of the lesson clearly at the start of each period revealed the highest weighted mean of 4.54, however, the teacher should be updated with present trends, relevant to the subject matter with the average weighted mean of 4.27 which is the lowest in rank.
2.2c. Instructional Materials

The instructional materials always used by the mathematics teacher is the marker and whiteboard with the weighted mean of 4.45 while the use workbook/textbooks got the lowest weighted mean of 1.00.

3. Action

Based on the findings, the researcher should come up with an intervention that could help improve student performance in General Mathematics such as supplementary activities since respondents showed low interest in the subject. Supplementary activities which will practice good study habits and boost interest on the subject. The teacher may also use some activities such as games and other related activities that will boost student interest. The use of graphing software could also enhance the academic performance and boost interest among the grade eleven in performing mathematical problems since majority are from the ICT strand. The mathematics teacher may also ask for the assistance from the school head of providing workbook/textbooks for the students as reference to improve academic performance in the subject.

XI. CONCLUSIONS

From the findings of the study the following conclusions are drawn:
1. Majority of the respondents are 17 years old which is 67.86 percent of the total population, males which is 67.86 percent, and 71.43 percent of the population are from ICT strand.
2. The factors that affect student performance study habit and interest which are under student-related factors and instructional materials used by the teacher which is under teacher-related factors.
3. Propose intervention is supplementary activities since respondents showed low interest in the subject. Supplementary activities that will practice good study habits. The teacher may also use some activities such as games, graphing software, and integration of ICT and other related activities that will boost student interest since majority are from ICT strand and providing workbook/textbooks as reference for the students.

RECOMMENDATIONS

There are various factors inside and outside school that contribute for the quality of academic performance of students. This study only focused on some of the factors inside the classroom that influence the student’s achievement scores. The key aspect for the educators is to educate their students effectively so that they may be able to show quality performance in their academics. To achieve this objective it is necessary for the educators to understand better about the factors that may contribute in the academic success of students.

In light of the findings and conclusions, the following recommendations are offered:
1. Intervention activities that will gain the interest among students such as graphing software and ICT integration.
2. Factors that affect student performance such as interest and study habits can be used as a basis of the teacher in making the lesson more interesting and provide activities to have a good study habits, thus the teacher should be updated with the new trends and strategies relevant to the subject matter and asking for the assistance from the school head in providing workbook/textbooks for the students as their reference material.
3. Similar studies can be done to determine if there is improvement on the student performance in mathematics.

REFERENCES


