**TUTORIAL PROGRAM AND MATHEMATICS PERFORMANCE OF COLLEGE STUDENTS**

by

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**Jocell D. Calma**[1] **and Aiza D. Villavicencio**[2]

## ABSTRACT

The study sought to determine the effectiveness of the free Mathematics tutorial program and its relationship to major examinations of college students. The tutorial program of the Mathematics Society (MathSoc) and Math faculty members under the BS in Mathematics program is an extension activity of the said program at Pampanga State Agricultural University. It is implemented semesterly in preparation for both midterm and final examinations on selected Mathematics subjects such as College Algebra, Plane Trigonometry and Calculus. A pre-test on the said math subjects was administered to students who voluntarily participated in the program before the tutorial. MathSoc officers were the tutors guided by the Mathematics faculty members. Subsequently, the same test was answered by the students as their post-test. Using the inferential method of research, the results showed that the pre-test performance of students is significantly different to the post-test across all the free tutorial programs conducted from 2014 to 2018. Moreover, the tutorial performance and the major examination performance of students were significantly related. Thus, the free tutorial program is effective for students who participated in the program. The findings of the study suggest the continuation of the tutorial program with wider dissemination for the increase of participants.

## INTRODUCTION

Mathematics is a powerful tool that has many applications. With a number of very useful benefits, it develops our reasoning and analytical thinking, quickens our mind, and generates practicality that is applicable to our day to day life.

For many students, math is boring, abstract, lacks creativity and complex that it is very difficult to understand. However, it is a subject that is part of the study of life which usually involves constant practice. Students have frightened away from mathematics and treated it as a lifeless subject. But through mathematics exposure, they will be able to learn mathematical concepts and could overcome mathematical anxiety.

According to Layug (2006), mathematics nowadays grows in a fast rate which is caused by technology and continuous research. Many researchers conducted studies that contribute to the development of mathematics. Magayon and Tan (2016) stated that Differentiated Instruction (DI) has been found to be effective in catering the individuality of students. At the same time, DI helps students to have positive attitudes about school, increased engagement in learning, and improved achievement. They also added that DI motivates students' interest making mathematics easier, and challenges students to learn and do more. However, the study also argued that students have difficulties in learning and doing mathematical tasks.

According to Sangcap (2010), there were positive beliefs that Filipino students valued effort in increasing one's mathematical ability and considered mathematics as useful in their daily lives. On the contrary, Filipino students believed that all word problems can be solved by simple step by step procedure and are not important.

Sangcap also stated that gender difference in positive beliefs that effort can increase mathematical ability and in the usefulness of mathematics is significant. This gender difference in the beliefs mentioned reflected also in all year levels and in various field of specializations.

De Dios (2017) correlates the mathematics anxiety with mathematics performance. It was found that anxiety and performance have a negative relationship. According to De Dios, anxiety on mathematics correlates with lower performance in mathematics. Moreover, students who do well in math are more likely to see their scores go down with anxiety. This relationship suggests that anxiety may be forcing good students to use inefficient strategies and students may not be able to think clearly when anxious.

According to Silao (2018), the problem-solving skills and Filipino pupils' mastery of basic skills are related. He stated that attitude towards mathematics and parenting involvement are factors affecting the problem-solving skills of pupils. While according to Jaen and Baccay (2016), curiosity and motivation are related to the mathematics performance of students. But male and female students differed in their performance.

Some who determined strategies and method on how to improve teaching mathematics are successful in this endeavor. Other stated the factors that affect the performance of students in this subject while developed and constructed some techniques for advance learning and further improvement. Until now, researchers still look for the best possible methods, strategies and techniques that will make learning in mathematics easier, more exciting, and more appealing to students.

In relation to this, the Mathematics program, in cooperation with the Mathematics Society, a minor organization governing all BS in Mathematics students, offered a free tutorial on different Mathematics subject such as Algebra, Trigonometry and Calculus to students who find difficulties in their said math subjects. It aims to prepare college students in their midterm and final examinations every school year. The main purpose of this research is to seek out the effectiveness of the free tutorial program to the mathematics performance of the college students.

**Statement of the Problem**
The study aimed to discuss the mathematics performance of college students as affected by free math tutorial program. Specifically, it sought to answer the following: (1) How may the free mathematics tutorial program be described?; (2) Is there a significant difference between the pre-test and post-test performance of students who availed the free tutorial program?; and (3) Is there a significant relationship between the tutorial performance of students to their major exam performance?

**Hypotheses of the Study**
1. There is no difference between the pre-test and post-test performance of students who availed the free tutorial program.
2. There is no significant relationship between the tutorial performance of students to their major exam performance.

**Scope and Delimitation of the Study**

The study focused on the mathematics performance of college students who availed the free tutorial program. It will be delimited to the conduct of the Mathematics Society of the said program every school year from 2014 to 2018.

**Significance of the Study**

The results of the study may be beneficial to students who encounter difficulty in different mathematics subjects. It may help students to improve their mathematics performance with preparation of their examinations. The study may also be beneficial to the Mathematics Society in improving their activities and programs. This may deem very beneficial to the College of Arts and Sciences Extension Unit in general and in BS Mathematics Extension program in particular.

**METHODOLOGY**

**Research Design**

Inferential research design was used in this study in determining the Mathematics performance of the college students who availed the free tutorial program. It was applied in the determination of the significant relationship and difference of the factors of the study.

**Research Instrument**

This study used a test questionnaire for pre-test and post-test of students. For the examination on first semester, the test was on selected topics on College Algebra since the said subject was offered in the semester. While for the examination on the second semester, the test was about Plane Trigonometry since the said subject was offered during the second semester. Calculus subject were also taught in the tutorial program, when it is needed by the participants.

**Sampling Procedure and Respondents of the Study**

Convenience sampling was done in the conduct of the study, since the free tutorial program is voluntary for students. Thus, the respondents of the study were students who availed or participated voluntarily in the free tutorial that spearheaded by the Mathematics Society during the school years 2014-2015, 2015-2016, 2016-2017, and 2017-2018 for both first and second semesters.

**Research Locale**

The study was conducted at the College of Arts and Sciences (formerly known as Institute of Arts and Sciences), Pampanga State Agricultural University (formerly known as Pampanga Agricultural College), Magalang, Pampanga.

**Research Procedure**

The following procedure was followed in the conduct of the study. A letter seeking of approval signed by the University officials was secured before the conduct of the free tutorial program. Then, Mathematics Society officers disseminated the information through posting of announcements to the different bulletin boards of the university. Posting on social media were also done to disseminate the tutorial program. Interested students contacted the Mathematics Society officers for scheduling through text message or by directly going to the MathSoc office located at the College of Arts and Sciences. On the first session of the tutorial, a pre-test was administered by the tutors (MathSoc members) guided by a Math faculty to assess the difficulties of participants before the tutorial proper. Together with a Math faculty member, the BS Math students taught the participants.

At the end of every sessions, the students answered the post-test exam given by their tutor with the Math faculty member. The pre-test and post-test scores were analyzed to test the effectiveness of the tutorial program. Moreover, midterm and final exams of students who availed the free tutorial were checked by their instructor/professor. These exams, along with their performance, were tabulated, analyzed and interpreted to reveal the implication of the study.

**Statistical Analysis of Data**

The following statistical tools were used to analyze the Mathematics performance of students who availed the free tutorial program using the Statistical Package for Social Sciences (SPSS) software:

**Wilcoxon Signed-Ranks test** was used to determine the significant difference of pre-test and post-test performance of students who availed the free tutorial program; and

**Spearman correlation ($\rho$)** was used to determine the relationship of the tutorial performance to the major exam performance of students. The interpretation scale of the $\rho$-value is stated below:

| $\rho$ | Interpretation |
|---|---|
| 0.00 | No correlation |
| ±0.01 to ±0.20 | Slight correlation |
| ±0.21 to ±0.40 | Low correlation |
| ±0.41 to ±0.60 | Moderate correlation |
| ±0.61 to ±0.80 | High correlation |
| ±0.81 to ±0.99 | Very High correlation |
| ±1.00 | Perfect correlation |

**RESULTS AND DISCUSSION**

**1. Free Math Tutorial Program**

The Mathematics Society (MathSoc) is a student organization under the College of Arts and Sciences and governs all the Bachelor of Science in Mathematics students. The society conducts different activities inside and outside of the university that adheres its principles. Some of these principles are to develop and promote enthusiasm in the field of Mathematics among the students of the university and the community and to stimulate greater participation of students in matters affecting their well-being. Hence, different student activities, such as the Free Math Tutorial, are conducted.

The Free Math Tutorial Program is conducted four times in every school year (two for each semester). The purpose of the said program is to prepare/review students who find difficulties in their mathematics subject (College Algebra, Plane Trigonometry or Calculus).

**2. Mathematics Performance of the Students as affected by the Free Tutorial Program**

The significant difference on the pre-test and post-test scores of students who participated in the free tutorial program before their midterm and final exam is presented in the Table 1*. While Table 2** shows the significant relationship between the performance of students on the tutorial program to their major exam performance in all semesters from 2014 to 2018.

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*see List of Figures: *Table 1. Significant Difference between the Pre-test and Post-test Performance of College Students*

**see List of Tables: *Table 2. Significant Relationship between the Tutorial Performance and Major Exam (Midterms/Finals) Performance of College Students*

### 2.1.1. Midterms in the 1$^{st}$ semester of S.Y. 2014-2015

The results show that the pre-test and post-test performance of students were significantly different (p-value = 0.000), it implies that the free tutorial program is effective among the students since the mean of post-test is higher than the mean of pre-test performance of students.

The post-test scores of students were subtracted to their pre-test to obtain their performance on the tutorial program. After their midterm exam, their scores were analyzed to their performance on the free tutorial. The results show that the tutorial performance of students was significantly related with a low positive correlation to their midterm performance (p-value = 0.000, $\rho$ = 0.258). It implies that students who obtained high performance in the tutorial program scored high result on their midterm exam.

### 2.1.2. Final Term in the 1$^{st}$ semester of S.Y. 2014-2015

Table 1 shows that were thirty-two (32) students who participated in the tutorial program. There is a high significant difference between the pre-test and post-test performance of students who participated in the tutorial program (p-value = 0.000). It means that the free tutorial program is effective since the mean score of students in the post-test is higher as compared to mean score in the pre-test.

The $\rho$-value of 0.503 suggests that there is a significant relationship with moderately positive correlation between the tutorial performance and midterm performance of students (p-value = 0.003). Thus, students who participated in the tutorial obtained a higher score in their final exam.

### 2.1.3. Midterms in the 2$^{nd}$ semester of S.Y. 2014-2015

Table 1 shows that there were thirty-four (34) students who participated in the free tutorial program during the second semester of the school year 2014-2015. Since the p-value is 0.000, thus, there is a high significant difference between the pre-test and post-test performance of students. It implies that the free tutorial is effective to the students.

Table 2 shows that there is high significant relationship between the tutorial performance of students to their midterm exam. Thus, tutorial performance has a high positive correlation to their midterm exam (p-value = 0.000, $\rho$ = 0.757).

### 2.1.4. Final Term in the 2$^{nd}$ semester of S.Y. 2014-2015

Table 1 shows that there were eleven (11) students who participated the tutorial program. There is a significant difference between the pre-test and post-test scores of students (p = 0.049), this means that the tutorial program is effective to the students since there is an improvement on the performance (mean of post-test is higher than the mean of pre-test).

The tutorial performance of students was significantly related to their final exam (p-value = 0.030, $\rho$ = 0.650) with a high positive correlation, thus, the tutorial program helped the students to get higher result on their final exam.

### 2.2.1. Midterms in the 1$^{st}$ semester of S.Y. 2015-2016

There were sixty-one (61) students who participated in the free tutorial program in the midterms of first semester. Table 1 shows that there is a high significant difference between the pre-test and post-test performances of students (p-value = 0.000). It implies that there is an improvement on the performance of students since the mean post-test score is higher than the mean pre-test score. Thus, the tutorial program is effective.

Table 2 shows that there is significant relationship between the tutorial performance and midterm performance of students who participated in free tutorial program (p-value = 0.019, $\rho$ = 0.301). Thus, the program has an impact on the midterm performance of students who availed the tutorial.

### 2.2.2. Final Term in the 1st semester of S.Y. 2015-2016

Table 1 shows that the pre-test performance is highly significant different with the post-test performance of students who participated in the said activity (p-value = 0.000). Since the mean score on the post test is higher than the mean score on the pre-test. Thus, the tutorial program is effective to students.

The $\rho$-value of 0.668 (p-value = 0.049) indicates that the tutorial performance and finals performance were significantly related and has a positively high correlation. Thus, students who obtained high performance on the tutorial program scored high in their final exam.

### 2.2.3. Midterms in the 2nd semester of S.Y. 2015-2016

Table 1 shows that there is a significant difference between the pre-test and post-test performance of students who participated in the tutorial program (p-value = 0.021). It implies that the free math tutorial is effective among students.

The results show that there is a significant relationship between the tutorial performance of students to their midterm performance and there is a high positive correlation between the variables (p-value = 0.049, $\rho$ = 0.668). Thus, students who were good in the tutorial program were also good at their midterm exam. It implies the program has an impact to the students who participated in the tutorial program.

### 2.2.4. Final Term in the 2nd semester of S.Y. 2015-2016

Table 1 shows that there were twelve (12) students who participated in the program. The p-value of 0.043 suggests that the pre-test and post-test performances of students were significantly different. It means that the tutorial program of students is effective since the mean of post-test is higher than the mean of pre-test.

Table 2 shows that there is a significant relationship between the tutorial performance and final performance of students (p-value = 0.035). The $\rho$-value of 0.611 suggests a high positive correlation between the variables. It implies that students high performance in the tutorial program had obtained high scores on their final exam.

### 2.3.1. Midterms in the 1st semester of S.Y. 2016-2017

Table 1 shows that there were fourteen (14) participants in the tutorial program. The p-value of 0.002 means that there is a significant difference between the pre-test and post-test performances of student who participated in the program. It implies that the tutorial program is effective among students.

Table 2 shows Pearson correlation between the tutorial performance and midterm performance of the students. The $\rho$-value of 0.745 suggests high positive correlation and the p-value of 0.002 suggests significant relationship between the variables. It implies that students who obtained high performance in the tutorial program scored high in their midterm exam.

### 2.3.2. Final Term in the 1st semester of S.Y. 2016-2017

Table 1 shows that there is a significant difference between the pre-test and post-test performance of students who participated in the free tutorial program (p-value = 0.030). There were twenty-two (22) students who availed the tutorial program during the first semester of the school year 2016-2017 in preparation for final exam. Based on the foregoing data, the tutorial program is effective to the students.

Table 2 shows that there is significant relationship between the tutorial performance and final exam of students (p-value = 0.045) with a moderately positive correlation ($\rho$ = 0.431). It means that students obtained high performance on the tutorial program scored high in their final exam.

### 2.3.3. Midterms in the 2nd semester of S.Y. 2016-2017

Table 1 shows that the pre-test performance is significantly different with post-test performance of ten (10) students who participated in the tutorial program (p-value = 0.025). The tutorial program is effective, since the mean of post-test is higher than the mean of pre-test.

Table 2 shows that there is significant relationship between the tutorial performance of students and their midterm exam (p-value = 0.021). the $\rho$-value of 0.710 suggests a high positive correlation between the variables. Hence, student-participants who obtained high performance in the tutorial program scored high in the midterm exam.

### 2.3.4. Final Term in the 2nd semester of S.Y. 2016-2017

Table 1 shows that there were fifteen (15) students who availed the in the free tutorial program during the second semester of the school year 2016-2017 for final exam. The p-value of 0.007 suggests that there is a significant difference between the pre-test and post-test performance of students. It implies that the free tutorial is effective to student-participants since the mean of post-test is higher than the mean of pre-test of students.

Table 2 shows that there is a significant relationship between the tutorial performance and the final performance of participating students (p-value = 0.035). The $\rho$-value of 0.546 suggests a moderately positive correlation between the variables.

### 2.4.1. Midterms in the 1st semester of S.Y. 2017-2018

Table 1 shows that there were twelve (12) students who participated in the tutorial program. The pre-test performance and post-test performance of students were significantly different since the p-value is 0.027. Therefore, the free tutorial program is effective to students.

Table 2 shows that there is a significant relationship between the tutorial performance and midterm of students (p-value = 0.019). There is a high positive correlation between the variables ($\rho$ = 0.661). Thus, students obtained high performance during the tutorial program scored high in their midterm performance.

### 2.4.2. Final Term in the 1st semester of S.Y. 2017-2018

Table 1 shows that there were nineteen (19) students who participated in the tutorial program during the second semester of the school year 2017-2018 for final examination. The p-value of 0.001 suggests that the pre-test and post-test performances of students were significantly different. It implies that the free tutorial program is effective to students since the mean in post-test is higher than the mean in pre-test.

Table 2 shows that there is significant relationship between the tutorial performance and final performance of students (p-value = 0.019). The $\rho$-value of 0.532 suggests a moderately positive correlation between the variables. Hence, students who obtained high performance in the tutorial program scored high in their final exam.

### 2.4.3. Midterms in the 2nd semester of S.Y. 2017-2018

Table 1 shows that there is a significant difference between the pre-test and post-test performance of eight (8) students during the free tutorial of the second semester school year 2017-2018 in preparation for midterm exam (p-value = 0.017). It implies that the tutorial program is effective to students since the mean of post-test is higher than the mean of pre-test.

Table 2 shows that there is a significant relationship between the tutorial performance and midterm of students who participated in the free tutorial program (p-value = 0.002). The $\rho$-value of 0.899 suggests a very high positive correlation between the variables. Thus, students who obtained high performance during the tutorial program scored high in their midterm exam.

**2.4.4. Final Term in the 2nd semester of S.Y. 2017-2018**

Table 1 shows that there were ten (10) students who participated in the free tutorial program during the second semester of the school year 2017-2018 in preparation for final exam. Since the p-value of 0.015 is greater than the level of significance (5%), the pre-test performance of students is significantly related to their post-test performance. It implies that the free tutorial program is effective to students since the mean of post-test is higher than the mean of pre-test.

Table 2 shows that there is a significant relationship between the tutorial performance and final performance of students (p-value = 0.000). There is a very high positive correlation among the variables ($\rho$ = 0.974), it means that students who obtained high performance on the tutorial performance scored high performance on their final examination.

## CONCLUSIONS

The Free Mathematics Tutorial program of the Mathematics Society in Pampanga State Agricultural University is being conducted twice a semester (midterm and finals) every school year. The Mathematics Society officers have been disseminating the information about the tutorial program to PSAU students. The tutorial program is voluntary. Total enumeration of the students who availed the tutorial program were the respondent of the study. During the tutorial proper, the tutors (BS Math students) were guided by the Mathematic faculty members of the College of Arts and Sciences.

The study used a inferential (correlational) method of research (pre-test -> intervention -> post-test). Before the tutorial proper (intervention), the participants of the tutorial program answered a pre-test questionnaire on the subject they need (Algebra, Trigonometry or Calculus). After the administration of the tutorial, the same questions were answered by the participants (post-test). The tutorial performance was correlated to their major examinations.

During the first semester of the school year 2014-2015, the free math tutorial was found effective to students in preparation for both midterm and final examination. There was also a significant relationship between the tutorial performance and their major examinations. While in the second semester, the free tutorial program is effective to student in preparation for the two major exams. Their performances on their major exams were related to the tutorial performance of students during the second semester of the school 2014-2015.

The free tutorial program was also held in the school year 2015-2016 for both the semesters with two tutorial programs in each semester (for midterm and for finals). All free tutorial programs conducted in the school year were found effective to the participating students. They were also found to be significantly correlated to their respective examinations.

During the school year 2016-2017, the free tutorial program was conducted four times, in preparation for both midterm and final exam for the first semester and in preparation for midterm and final exam for the second semester. The study found that the all tutorial programs concluded during the said school year were found effective to students. It was also found that the tutorial programs were significantly related to the major exams (midterm and final exam) of students.

The free math tutorial was also conducted four times in the school year 2017-2018. They were all found effective to the students and have a significant relationship to the major exams of students. In totality, all the free math tutorial programs that were held from 2014 to 2018 were found effective and have a significant relationship to the major exams (midterm and final exam).

**RECOMMENDATIONS**

Based on the findings of the study, the following were recommended: (1) The Mathematics Society with Math faculty members should continue conduct the free tutorial program to students who encounter difficulties in different Mathematics subjects; (2) Free tutorial program for the additional Mathematics subjects should be offered since there is a new curriculum for General Education courses; (3) Proper dissemination and announcement of the free tutorial program through social media and other forms should be executed so the number of participating students will also increase; and (4) Other student organizations may use this study as a basis for the conduct of their own tutorial program in different disciplines or subjects.

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**LIST OF TABLES**

**Table 1.** Significant Difference between the Pre-test and Post-test Performance of College Students

| School Year | Semester | Term | n | Pre-test | Post-test | p-value* | Interpretation |
|---|---|---|---|---|---|---|---|
| 2014-2015 | 1st semester | Midterms | 234 | 13.48 | 15.69 | 0.000 | Significant |
| | | Finals | 32 | 10.31 | 12.91 | 0.000 | Significant |
| | 2nd semester | Midterms | 34 | 12.79 | 18.44 | 0.000 | Significant |
| | | Finals | 11 | 16.82 | 18.82 | 0.049 | Significant |
| 2015-2016 | 1st semester | Midterms | 61 | 10.77 | 13.80 | 0.000 | Significant |
| | | Finals | 17 | 10.47 | 14.24 | 0.000 | Significant |
| | 2nd semester | Midterms | 9 | 11.00 | 14.89 | 0.021 | Significant |
| | | Finals | 12 | 11.50 | 13.83 | 0.043 | Significant |
| 2016-2017 | 1st semester | Midterms | 14 | 19.36 | 28.36 | 0.002 | Significant |
| | | Finals | 22 | 12.27 | 13.91 | 0.030 | Significant |
| | 2nd semester | Midterms | 10 | 20.10 | 26.70 | 0.025 | Significant |
| | | Finals | 15 | 22.40 | 27.00 | 0.007 | Significant |
| 2017-2018 | 1st semester | Midterms | 12 | 11.08 | 14.17 | 0.027 | Significant |
| | | Finals | 19 | 23.11 | 28.89 | 0.001 | Significant |
| | 2nd semester | Midterms | 8 | 22.88 | 29.38 | 0.017 | Significant |
| | | Finals | 10 | 14.70 | 20.10 | 0.015 | Significant |

*Significantly different at 5% level of significance

**Table 2.** Significant Relationship between the Tutorial Performance and Major Exam (Midterms/Finals) Performance of College Students

| School Year | Semester | Term | p-value* | $\rho$** | Interpretation |
|---|---|---|---|---|---|
| 2014-2015 | 1st semester | Midterms | 0.000 | 0.258 | Low positive correlation |
| | | Finals | 0.003 | 0.503 | Moderate positive correlation |
| | 2nd semester | Midterms | 0.000 | 0.757 | High positive correlation |
| | | Finals | 0.030 | 0.650 | High positive correlation |
| 2015-2016 | 1st semester | Midterms | 0.019 | 0.301 | Low positive correlation |
| | | Finals | 0.049 | 0.668 | High positive correlation |
| | 2nd semester | Midterms | 0.049 | 0.668 | High positive correlation |
| | | Finals | 0.035 | 0.611 | High positive correlation |
| 2016-2017 | 1st semester | Midterms | 0.002 | 0.745 | High positive correlation |
| | | Finals | 0.045 | 0.431 | Moderate positive correlation |
| | 2nd semester | Midterms | 0.021 | 0.710 | High positive correlation |
| | | Finals | 0.035 | 0.546 | Moderate positive correlation |
| 2017-2018 | 1st semester | Midterms | 0.019 | 0.661 | High positive correlation |
| | | Finals | 0.019 | 0.532 | Moderate correlation |
| | 2nd semester | Midterms | 0.002 | 0.899 | Very high positive correlation |
| | | Finals | 0.000 | 0.947 | Very high positive correlation |

*Significantly related at 5% level of significance

| ** $\rho$ | *Interpretation* |
|---|---|
| 0.00 | No correlation |
| ±0.01 to ±0.20 | Slight correlation |
| ±0.21 to ±0.40 | Low correlation |
| ±0.41 to ±0.60 | Moderate correlation |
| ±0.61 to ±0.80 | High correlation |
| ±0.81 to ±0.99 | Very High correlation |
| ±1.00 | Perfect correlation |

## LIST OF FIGURES



**Figure 1.** BS Mathematics students while teaching participant in their College Algebra subject in preparation for Midterm examination, 1st semester S.Y. 2014-2015 at CAS room 220.



**Figure 2.** MathSoc officer while tutoring a participant in her Calculus subject for final examination, 2nd semester S.Y. 2016-2017 at MathSoc office.



**Figure 3.** Mr. Alvin B. Supan, a Mathematics faculty member, while assisting in the tutorial program



**Figure 4.** Prof. Aiza D. Villavicencio, one of the MathSoc advisers, while assisting the tutors in the MathSoc office.