

Students' Performance in General Mathematics Under Modular Class, Candijay National High School, Candijay, Bohol

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ABSTRACT

The study intended to determine students' performance in General Mathematics under the modular class of Grade 11 students of Candijay National High School, Candijay, Bohol during the academic year 2020-2021. The study used a descriptive normative survey method and a correlational quantitative research design. A total of 150 Grade 11 students of Candijay National High School were included. The research used a self-constructed instrument patterned from Essential Learning Competencies (MELCs) in General Mathematics. The majority of the respondents took the Humanities and Social Sciences strand. In terms of the gadgets available, mobile phones had the highest frequency. More than half of the students used mobile data as interconnection with an internet speed connectivity of moderate. It showed that the student's proficiency in General Mathematics was on the Beginning Level. All the problems encountered stated were found as less serious. It showed that the student's academic performance in General Mathematics for the first semester was fairly satisfactory. The data inferred that there is a significant degree of correlation between

students' strands and academic performance. The data resulted from an insignificant correlation between students' strands and problems encountered in teaching mathematics and proficiency levels in modular classes. The data revealed a significant degree of correlation between students' academic performance and problems encountered in modular classes in teaching mathematics and between students' academic performance and proficiency level. The data reflected an insignificant correlation between students' proficiency level and problems encountered in modular classes in teaching mathematics.

Keywords: Academic Performance, Modular Class, General Mathematics, Descriptive-Normative Survey, Correlational Quantitative, Learning Competencies, Spearman-rho, Philippines, Asia

INTRODUCTION

Learning mathematics is a process of interaction between teachers and students in a learning atmosphere that teachers deliberately create to form the mathematics mindset, comprehension, reasoning, and problem-solving skills by involving different mathematics learning element. Through habituation, including the introduction of emotional intelligence into cooperative learning, a character can be cultivated (Ilyas, Ma'rufi, Fitriani, & Salwah, 2018).

The study of Andriani, Dewi, & Halomoan (2017) was conducted to improve the standard of mathematics learning strategy lectures in the Department of Mathematics. The basic purpose of this research was to develop a Higher Order Thinking Ability (HOT)-based mathematics learning strategy learning method that can be used to improve mathematical communication and the self-efficacy of students in mathematics education.

General Mathematics is one of the main subjects of the senior high school. The goal is to give students an understanding of how to solve logical, exponential, and logarithmic problems, solve organizational issues, and apply logic to real life situations. In order to provide the students with the required skills and abilities in university life and workplace all their learning abilities are targeted. This program is inclusive and built on the learner's needs, and the culture, and is a quality and competency-based in line with the purpose of the Department of Education. It also proposes to improve and use the talents, and skills of the Filipino young people leading

to self, community and nation growth. These skills must also be learned before graduation (Mamolo, 2019).

In addition, the knowledge of school mathematics by competent teachers is both broad and deep. Such teachers have multiple ways to conceptualize the current content at the grade level, can represent it in a variety of ways, understand the key aspects of each subject, and see links at the same level to other topics. Such teachers are deeply aware of the curricular origins and directions of the content where mathematics has been taught and where it leads to, and understand how mathematical ideas develop conceptually (Schoenfeld & Kilpatrick, 2008).

It was quoted by Van Velzen (2020) that teaching for comprehension is stressed by educational mathematics researchers and educators. Content review of secondary data from exploratory research, where students reacted to open-ended questions regarding meta-cognition, found that concentrating on comprehension was hardly involved in mathematical learning behavior. The topic poses ramifications for education in mathematics and recommendations for education in general.

Internationally, attempts to improve mathematics teaching have found it difficult to shift practice. During the introduction of a textbook-based South Asian mastery approach to teaching mathematics, the research used classroom video triggered recall interviews with primary teachers in England to explore their beliefs. The teacher's self-reported beliefs showed their support for improvement in practice, from in-class grouping by prior achievement to whole class teaching with everyone discussing the same problem, and implied conceptions of malleable intellect in the particular field of school math (Boyd & Ash, 2018).

In achieving the expected learning goals set by teaching staff, the design of the problems use in problem-based learning plays an important role. The learning problems created by students during tutorials, to a large extent, decide their learning activities and form the framework for self-directed study direction. The importance of these learning problems would inspire and encourage learners to become more professional self-directed learners (Yeung, Au-Yeung, Chiu, Mok, & Lai, 2010).

In a study of children and early adolescents, improvements in the achievement values of students in mathematics and reading were studied. To account for classroom and student-level impacts, hierarchical linear modeling techniques were used. Positive improvements in the achievement values of students were positively correlated with self-concept of skill

at the student level and the achievement values of the previous year in both reading and math. In the full HLM model, indicators of teacher's mastery and performance-oriented instructional activities were included. After correcting for other student and classroom level factors, students experienced reductions in achievement values in classrooms where performance-oriented instructional strategies were used. Self-concept of skill was positively related to increases in achievement values in the full model, although gender was not related to changes in achievement values (Anderman & Blumenfeld, 2001).

The enthusiasm of student-perceived teachers was related to the orientation of mastery in the classroom as well as to student-level intrinsic value and expense. At the classroom level, teacher-reported self-efficacy was linked to classroom mastery orientation. Classroom mastery orientation was related to attainment and utility value at both the person and the classroom level (Lazarides, Buchholz, & Rubach, 2018).

Theory of Experiential Learning (ELT) by Kolb, Boyatzis, & Mainemelis (2001). Offers a holistic learning process model and a multi-linear adult development model, all of which are compatible with what we know about how people learn, grow and develop. To highlight the central role experience plays in the learning process, the principle is called experiential learning. This theory leads to the active participation of the students that they must be involved in solving different problems about General Mathematics with hands on tools and tasks that are related to our daily life situation for them to improve their performance in the class.

Self-determination Theory (SDT) by Deci & Ryan (2012). In social contexts is an empirically developed theory of human motivation and personality that distinguishes motivation regarding being independent and controlled. One of the most significant components of mathematics teaching and a crucial element of any curriculum is to motivate students to be enthusiastically receptive.

Walberg's Academic Achievement Theory by Reynolds & Walberg (1992). Walberg's theory states that the psychological features of individual students and their immediate psychological atmosphere affect educational outcomes regarding behavior, attitude, and cognitive (Reynolds & Walberg, 1992). The analysis of empirical literature on the causes and predictors of academic achievement suggested that student characteristics exhibit the most important direct effect on achievement.

The Theory of Performance (ToP) by Elger (2007). Note that it is essential to generate useful results when performing. A person or group of individuals participating in a collective effort may be a performer. Performance production is a journey, and the performance level determines where the journey takes place.

Scaffolding Theory by Vygotsky (1978). Highlights by progressively enhancing a learner's capacity to draw on prior experience, the instructor offers individualized support. Scaffolding offers unique kinds of assistance to help learners progress towards new ideas, talents, or understandings. Scaffolds are given by the instructor so that the learner may perform such activities that they would otherwise not perform on their own (Bransford, Brown, & Cocking, 2000).

Related Studies. The research findings of "Effect of gender, age and Mathematics anxiety on college student's achievement Algebra" showed that the variations in performance across gender, age and anxiety groups in Mathematics (low, medium and high) were all non-significant. Since the participants are in college in Nigeria for their first semester and their performance is normally on average, it is recommended that new students be properly focused on how to be highly competitive in the program (Owolabi & Etuk-iren, 2014).

Andaya (2014) discovered that mathematics achievements are highly correlated to individual factors and moderately correlated to classroom management and evaluation factors in her study titled "Factors that affect Mathematics Achievements of Students of Philippine Normal University-Isabela Campus."

As per Alipio's (2020) study, "Academic Adjustment and Performance Among Filipino Freshmen College Students in the Health Sciences: Does Senior High School Strand Matter?" When students were stratified by SHS strand, the One-Way ANOVA revealed a significant difference in academic adjustment and performance. Furthermore, moderation analysis revealed that the SHS strand moderates the relationship between academic adjustment and performance significantly.

According to Pagan's (2015) study, "Cyberlearning and its Effect on 12th-Grade Students' Math Achievement in Low-Performing High Schools," cyberlearning was as effective as traditional learning when all of the students in the study were considered.

It was found in the study "Analysis of Self-Directed Learning upon Student of Mathematics Education Study Program" that the results of the

interview indicate a lack of time for students to study their errors on previous work completed as subsequent tasks await them for the next meeting. Students also tend to brace themselves for the role of the next meeting in order not to be left behind in the coming class discussions by their peers. However, there are a small handful of students who want to analyze the work of previous meetings but are not given optimal justification for time shortages (Kleden, 2015).

It is concluded in the study “Development of Mathematics Module Based on Metacognitive Strategy in Improving Students’ Mathematics Problem Solving Ability at High School” of Telaumbanua, Sinaga, Mukhtar, & Surya (2017) that the mathematics module based on the metacognitive strategy developed is valid in improving the mathematical problem-solving skill of students, based on the results of the research that has been obtained. With the fulfillment of the five-efficacy metrics, the mathematics module based on the metacognitive strategy developed is successful in improving the mathematical problem-solving skill of students.

The results of the study entitled “Learning Mathematics and Mathematics Performance: Analysis with their preferred track in the senior high during grade 11 in the K-12 implementation” showed that the performance of mathematics has no relationship between the perception of the students on the idea that their friends think that mathematics is a worthwhile class and the intention of the students to continue to take mathematics. The performance of mathematics has little correlation between the attitude of the students towards doing mathematics and the perception of their ability to do mathematics by the students. The chosen track in the senior high is independent of the perspective of the students on the fact that their friends think mathematics is a worthwhile class and the intention of the students to continue taking classes in mathematics. The chosen track in the senior high depends on the attitude of students towards doing Mathematics and the opinion of students about their ability to do Mathematics. Students who choose STEM have a higher degree in mathematics than those who prefer arts and design, general education, and humanities and social sciences. There are higher Mathematics rates for students who choose ABM than for those who prefer Arts and Design (Aunzo & Lanticse, 2015).

The outcome of the study “The use of mathematical module based on constructivism approach as media to implant the concept of algebra operation” showed that the use of the mathematics module based on

constructivism was very successful in improving the mathematical understanding of algebra process materials by students. In addition, the outcome of experiments performed during the learning activities showed that the students with high academic ability appeared to be more involved in the discussion process while using modules in learning mathematics (Anwar & Rahmawati, 2017).

The findings of the study “Mathematics module based on problem-based learning to improve students’ metacognition” showed that the problem-based learning mathematics module is accurate on the basis of expert judgment with very good categories. Practical basis on the evaluation of teachers and students with rather appropriate categories and productive because of the increase in metacognition of students after learning using the problem-based learning mathematics module (Barokah & Saputro, 2020).

Per the findings of Guinocor, Almerino, Mamites, & Lumayag (2020) study “Mathematics Performance of Students in a Philippine State University,” the majority of students performed “Very good” in terms of their graded point average in Mathematics subjects.

The study “Enhancing teaching-learning effectiveness by creating online interactive instructional modules for fundamental concepts of Physics and Mathematics” results indicate that the grouped intervention performed significantly better on post-tests with the use of online instructional courses, although there was no substantial performance change in the control group. Students shared their loyalty to the instructional materials on the basis of the survey results. In addition, by offering input that they had control over using the established online instructional modules, they conveyed a self-paced learning experience. The findings of the survey were also reflective of the approval of students to use modules as a supplementary material for classroom lectures (Moradi, Liu, Luchies, Patterson, & Darban, 2018).

It can be concluded from the study “Effect of Concept Attainment Models and Self-Directed Learning (SDL) on Mathematics Learning Outcomes” that the learning outcomes in mathematics taught by the definition attainment learning model are higher than the model of direct learning on the basis of the results of this study. The relationship between the learning model and self-directed learning has an effect on the learning outcomes of mathematics. Mathematics learning outcomes are higher than the direct learning model for students who have high self-directed learning and are taught with a learning model of concept attainment,

and students with low self-directed learning are taught with a concept attainment learning model lower than the direct learning model (Sukardjo & Salam, 2020).

Statement of the Problem. The main thrust of the study is to determine students' performance in General Mathematics under the modular class of Grade 11 students of Candijay National High School, Candijay, Bohol during the academic year 2020-2021. Specifically, it sought to satisfy the following problems: the students' proficiency as to the researcher-made summative test in General Mathematics; the students' mastery level in General Mathematics; the level of students' academic performance in General Mathematics among the Grade 11 students; the problems encountered in Modular classes in teaching Mathematics; significant degree of correlation between the students' of different strands as to: level of students' proficiency, students' mastery level, academic performance, and problems encountered in Modular Class in teaching Mathematics; significant degree of correlation between the students' of different strands as to: mastery level and academic performance, mastery level and proficiency, mastery level and problems encountered in Modular Class in teaching Mathematics, academic performance, and problems encountered in Modular Class in teaching Mathematics, academic performance and proficiency, and proficiency and problems encountered in Modular Class in teaching Mathematics; significant degree of variance among students' of different strands as to: mastery level and academic performance, mastery level and proficiency, mastery level and problems encountered in Modular Class in teaching Mathematics, academic performance and problems encountered in Modular Class in teaching Mathematics, academic performance and proficiency, and proficiency and problems encountered in Modular Class in teaching Mathematics; and remedial program can be proposed based on the findings.

METHODOLOGY

This study utilized a descriptive normative survey method and correlational quantitative research designs. It employs a detailed survey generating the students' performance in General Mathematics. The researchers also will use the documentary analysis, where the students' academic performance in Mathematics will be obtained from the class records of the advisers. The academic performance refers to the 1st

semester grade of each student in their General Mathematics subject.

The main thrust of the study is to determine students' performance in General Mathematics under the modular class of Grade 11 students of Candijay National High School, Candijay, Bohol during the academic year 2020-2021.

This study was conducted at Candijay National High School. This a public institution located at Tugas, Candijay, Bohol. In Bohol province, Candijay is a fourth-class municipality consisted of 21 barangays. It has a population of 29, 475 people, according to the 2015 census.

The researcher used complete enumeration and chose all the 150 Grade 11 students of Candijay National High School. The students were selected because they currently taking the subject General Mathematics in the 1st semester of school year 2020-2021.

The researcher utilized a researcher-made instrument patterned from the Most Essential Learning Competencies (MELCs) in General Mathematics. There are two sets of researcher-made test questions prepared based on the learning competencies for the two (2) quarters in General Mathematics. It was intended to determine the students' proficiency and mastery level on the most essential learning competencies.

The first set is composed of 2 parts: Students' Profile and a 60-item test with four choices in each item that was administered at the end of the first quarter covers the 30 most essential learning competencies.

The second set is composed of 3 parts: Survey about problems encountered in modular class in teaching Mathematics, and a 48-item multiple-choice test with four choices in each item were administered at the end of the second quarter that covers the remaining 24 most essential learning competencies.

The researcher inserted the questionnaires with unique codes to each Grade 11 students' corresponding envelope and their learning modules distributed every Friday of the week.

A letter of consent was sent to the parents asking permission to include his/her child to participate in the study, including asking permission to obtain the students' grades.

The issue of confidentiality and anonymity was discussed, requiring them not to write names on the tools, but they were assigned with codes. The issue of confidentiality was also clearly stated in the given assent form. A letter was also sent to the class advisers asking permission to obtain the students' grades in General Mathematics for the first semester.

RESULTS AND DISCUSSION

Students' Proficiency. As to the students' proficiency level in General Mathematics, one hundred forty-four (96%) students have a Beginning level (0-74) ranked first. It was followed by Developing (75-79) with a frequency of five (3.33%) and followed by Approaching proficiency with a frequency of one (0.67%), followed by Proficient and Advanced Proficiency that got the same frequency which is zero (0%). This suggests that the students' proficiency was still at the beginning level. Hence, it needs further improvements (see Table 1).

This finding confirmed with the results of Dhlamini & Luneta's (2017) research, "Exploration of the Levels of Mathematical Proficiency Shown by Grade 12 Learners in Responses to Matric Examinations," which revealed that the majority of students were not proficient in examination questions that measured conceptual knowledge in Mathematics.

Table 1. Summary Table for Proficiency Level in General Mathematics (N= 150)

PROFICIENCY LEVEL	RANGE	FREQUENCY	%	RANK
Beginning	0-74	144	96.00	1
Developing	75-79	5	3.33	2
Approaching Proficiency	80-84	1	0.67	3
Proficient	85-89	0	0	4
Advanced Proficiency	90-100	0	0	4
		150		
MEAN		54.82		
Frequency Above Mean		81	54.00	
Frequency Below Mean		69	46.00	

Parameters:

Scores	Interpretation
0 – 74	Beginning
75 – 79	Developing
80 – 84	Approaching Proficiency
85 – 89	Proficient
90 – 100	Advanced Proficiency

Mastery Level. From the generated data as shown on Table 2, out of the total learning competencies of fifty-four (54), students' have an average near mastery (ANM) on the thirty-seven (68.52%) learning competencies. Also, students moved towards mastery (MTM) on the twelve (22.22%) learning competencies. Only five (9.26%) were on the low mastery level. This finding indicates that the students' gained the minimum knowledge and skills on the competencies mentioned above in General Mathematics.

This finding agrees with the result of Mamolo's (2019) study entitled "Senior High School Students' Competency in General Mathematics" data showed that in the three areas of General Mathematics, the least learned competencies of students were distributed. As stipulated by the Department of Education, the data may show that high school seniors have not yet mastered the requisite competencies in the subject matter.

Table 2. Summary Table for Mastery Level in General Mathematics (N= 150)

OVERALL				
MASTERY LEVEL	RANGE	FREQUENCY	%	RANK
Absolutely No Mastery	0-4	0	0	5.5
Very Low Mastery	5-14	0	0	5.5
Low Mastery	15-34	5	9.26	3
Average Near Mastery	35-65	37	68.52	1
Moving Towards Mastery	66-85	12	22.22	2
Closely Approximating Mastery	86-95	0	0	5.5
Mastered	96-100	0	0	5.5
		54	100	
Mean	56.18			
Frequency Above Mean		11		
Frequency Below Mean		13		

Parameters

Range	Interpretation	Symbol
0 – 4	Absolutely No Mastery	NM
5 – 14	Very Low Mastery	VLM
15 – 34	Low Mastery	LM

35 – 65	Average Near Mastery	ANM
66 – 85	Moving Towards Mastery	MTM
86 – 95	Closely Approximating Mastery	CAM
96 – 100	Mastered	M

Content of the modules ranked one with a mean of 2.53 interpreted as less serious to the problems encountered in modular class in teaching Mathematics and followed by format of the modules and student factor with a mean of 2.46 interpreted as less serious. Last on the ranked is the teacher factor that got 2.44, interpreted as less serious. Hence, Mathematics teachers need to proofread the learning modules, especially the content found must be relevant and easily understood by the students (see Table 3).

This result is linked to the study of Telaumbanua, Sinaga, Mukhtar, & Surya (2017) entitled “Development of Mathematics Module Based on Metacognitive Strategy in Improving Students’ Mathematics Problem Solving Ability at High School.” Mathematics module based on the metacognitive strategy developed is valid in improving the mathematical problem-solving skill of students, based on the results of the research obtained. With the fulfillment of the five-efficacy metrics, the mathematics module based on the metacognitive strategy developed successfully improves students’ mathematical problem-solving skills.

Table 3. Summary of Problems Encountered in Modular Class in Teaching Mathematics (N= 150)

Summary Table		
Problems encountered in modular class in teaching Mathematics	Mean	Rank
Format of the modules	2.46	2.5
Content of the modules	2.53	1
Student Factor	2.46	2.5
Teacher Factor	2.44	4
MEAN 1.98 Not a Problem		

Academic Performance. Overall, it can be concluded that the students’ academic performance in General Mathematics was generally interpreted as “Satisfactory,” with a mean average of 81.62. This result suggests that the students performed below the average level. The table

also shows that seventy-nine were below the mean and seventy-one were above the mean. This finding means that the students with an academic performance below the mean bested those with performances above the mean (see Table 4).

In contrast, per the findings of Guinocor, Almerino, Mamites, & Lumayag (2020) study “Mathematics Performance of Students in a Philippine State University,” the majority of students performed “Very good,” which is equivalent to “Outstanding” in senior high school grading system in terms of their graded point average in Mathematics subjects.

Table 4. Summary of Academic Performance in General Mathematics (N= 150)

PARAMETERS	RANGE	FREQUENCY	%	RANK
Did Not Meet Expectations	0-74	0	0	5
Fairly Satisfactory	75-79	61	40.67	1
Satisfactory	80-84	55	36.67	2
Very Satisfactory	85-89	25	16.67	3
Outstanding	90-100	9	6	4
Mean 81.62- Satisfactory				
Frequency Above Mean		71		
Frequency Below Mean		79		

Degree of correlation between the Students’ of Different Strands as to Academic Performance. The data inferred a significant correlation between students’ strands and academic performance in General Mathematics since the obtained p-values were less than the 0.05 level of significance. Thus, it led to the rejection of the null hypothesis. Therefore, students’ strands highly affect their academic performance in General Mathematics.

Degree of correlation between the Students of Different Strands as to Proficiency Level. Also, the data connoted no significant degree of correlation between students’ strands and proficiency level in General Mathematics since the obtained p-value was less than the 0.05 level of significance. Thus, the null hypothesis was accepted. This finding infers that students of different strands are not likely to have high proficiency levels. Thus, students’ strands do not affect their proficiency level in General Mathematics.

This finding relates to the study of Capuno, Necesario, Etcuban, Espina, Padillo, and Manguilimotan's (2019) titled "Attitudes, Study Habits, and Academic Performance of Junior High School Students in Mathematics," there was a weak positive correlation between the value of math and their academic performance in math. It was found that students' attitudes and study habits are important factors influencing their mathematical performance.

Degree of correlation between the Students of Different Strands as to Problems Encountered in Modular Class in Teaching Mathematics. The obtained p-value of 0.07 is greater than the value at 0.05 level of significance (2-tailed). This study indicates no significant correlation between students' strands and problems encountered in modular classes in teaching Mathematics. Thus, the null hypothesis is accepted.

Table 5. Summary Table for the Degree of Correlation (N=150)

	Correlation between	P-value	Remarks
Strands	Academic Performance in General Mathematics	0.00	Significant
Strands	Proficiency Level in General Mathematics	0.06	Significant
Strands	Problems Encountered in Modular Class in Teaching Mathematics	0.07	Insignificant

Degree of Correlation between the Academic Performance and Problems Encountered in Modular Class in Teaching Mathematics. The data revealed a significant correlation between students' academic performance and problems encountered in modular classes in teaching mathematics since the obtained p-value was less than 0.05 level of significance. Thus, it led to the rejection of the null hypothesis. This finding implies that students with high academic performance are likely to have low problems encountered in modular classes in teaching mathematics. Also, the students with low problems encountered in modular classes in teaching mathematics are expected to have a high proficiency level. This finding contradicted the results of the study of Andaya (2014) discovered that mathematics achievements are highly correlated to individual factors and moderately correlated to classroom management and evaluation factors.

Degree of Correlation between the Academic Performance and Proficiency Level. The data concluded a significant correlation between students' academic performance and proficiency level since the obtained p-value was less than 0.05 level of significance. Hence, it led to the rejection of the null hypothesis.

This finding implies that students with high academic performance are likely to have high mastery levels in General Mathematics. Also, the students with low academic performance are low in mastery level. This result relates to the findings of Capuno, Necasario, Etcuban, Espina, Padillo, and Manguilimotan's (2019) study titled "Attitudes, Study Habits, and Academic Performance of Junior High School Students in Mathematics." There was a weak positive correlation between the value of math and their academic performance in math. It was found that students' attitudes and study habits are important factors influencing their mathematical performance.

Degree of Correlation between Proficiency Level and Problems Encountered in Modular Class in Teaching Mathematics. The obtained p-value of 0.16 is greater than the value at 0.05 level of significance (2-tailed). This indicates an insignificant correlation between students' proficiency level and problems encountered in modular classes in teaching mathematics. Thus, the null hypothesis is accepted.

This result contradicted the result of the study of Sukardjo & Salam (2020) entitled "Effect of Concept Attainment Models and Self-Directed Learning (SDL) on Mathematics Learning Outcomes." The learning outcomes in mathematics taught by the definition attainment learning model are higher than the direct learning model. The correlation between the learning model and self-directed learning affects the learning outcomes of mathematics.

Table 6. Summary Table for the Degree of Correlation (N=150)

Correlation between		P-value	Remarks
Academic Performance in General Mathematics	Problems Encountered in Modular Class in Teaching Mathematics	0.00	Significant
Academic Performance in General Mathematics	Proficiency Level in General Mathematics	0.04	Significant
Proficiency Level in General Mathematics	Problems Encountered in Modular Class in Teaching Mathematics	0.16	Insignificant

CONCLUSIONS

1. The student's academic performance in General Mathematics for the first semester was satisfactory. This finding means that the students with an academic performance below the mean bested those with performances above the mean. Further improvements are needed to increase their academic performance in General Mathematics.
2. The data inferred a significant degree of correlation between students' strands and academic performance in General Mathematics. Therefore, students' strands highly affect their academic performance in General Mathematics.
3. The data connoted no significant degree of correlation between students' strands and proficiency level in General Mathematics. This result infers that students of different strands are not likely to have high proficiency levels. Thus, students' strands do not affect their proficiency level in General Mathematics.
4. The data showed no significant correlation between students' strands and problems encountered in modular classes in teaching mathematics. This finding signifies that students of different strands are not expected to have problems encountered in modular class teaching Mathematics. Therefore, students' strands are not correlated to problems encountered in modular classes in teaching Mathematics.
5. The data revealed a significant correlation between students' academic performance and problems encountered in modular class in teaching mathematics. This result implies that students with high academic performance are likely to have low problems in modular classes in teaching mathematics. Also, the students with low problems encountered in modular classes teaching mathematics are expected to have a high proficiency level.
6. The data concluded that there is a significant correlation between students' academic performance and proficiency level.
7. This finding implies that students with high academic performance are likely to have high mastery levels in General Mathematics. Also, the students with low academic performance are low in mastery level.

RECOMMENDATIONS

With the findings and conclusions being mentioned, the researcher has formulated the following:

1. Regular parent-teacher feedbacking should be strengthened to enhance relations about the academic performance of students who are low proficient in mathematics.
2. Learning Action Cell (LAC) sessions for mathematics teachers can discuss the need to develop mathematics proficiency and mastery level.
3. Mathematics teachers may come up with a strategic plan for the least mastered competencies, namely: represents real-life situations using exponential functions, solves problems involving exponential functions, equations, and inequalities, find the domain and range of an inverse function, illustrates different types of tautologies and fallacies and illustrates the various forms of conditional propositions to improve the mastery, proficiency and academic performance of students in general mathematics.
4. A need to add remedial classes in general mathematics to meet the academic needs of low-performing students.
5. Mathematics teachers may proofread the learning modules before printing to avoid problems encountered in modular classes. A need to utilize illustrations, pictures, and captions to layout properly for easy reference, difficulty in studying Mathematics using these instructional modules, physically drained after answering the modules, and the teacher does not help/guide the students in answering the activity sheet.
6. All the students need to attend remedial classes using the designed strategic learning materials made by teachers for at least thirty minutes to help them improve their mathematics performance relevant to their academic performance.
7. It is recommended that the study's results and proposed remedial program be provided to school officials, teachers, parents, and students for awareness of the program's objectives.
8. Findings may be utilized as a framework for new research.
9. At last, to offer this study significance and context, the researcher suggested a remedial program written below.

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