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Students' Academic Engagement, Perceptions on Modular Distance Learning and Performance in Mathematics

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ABSTRACT

The study focused on the students' academic engagement, perceptions on modular distance learning in terms of perceived effectiveness, advantages, disadvantages and challenges and academic performance of the students in Mathematics. The quantitative-correlational method of research was used. The adopted questionnaires with modifications were utilized as data gathering instruments. Data were treated with both descriptive and inferential statistics. Reliability test was conducted to determine the internal consistency of the items in the questionnaire. Statistical treatments were addressed using the SPSS and online data analysis calculator.

The research locale was the Main Campus in Mati and Dumingag Campus of J.H. Cerilles State College, School of Teacher Education, Zamboanga del Sur. This involved Second, Third Year and Fourth year students enrolled during the school year 2021-2022.

Students considered their academic engagement as high as they engaged themselves in applying theories or concepts to practical problems or in new situations, working with other students on projects, and discussing grades or assignments with teachers. The majority of the students considered the modular distance learning highly effective as this facilitated them in building their sense of responsibility.

Teachers should provide more engaging activities for students to work together on projects or group work assignments. Parents should constantly encourage and guide their children in completing assignments, projects, exams, and modules. School heads can help teachers motivate and engage students.

KEYWORDS: *students' academic engagement, modular distance learning, performance in mathematics*

INTRODUCTION

Covid-19's rapid spread has caused a dramatic change in the nation's economic stability as well as in its educational system. Schools have been promptly locked for personal engagement, transactions, and student academic activities. The Department of Education was then forced to adapt and design a practical learning platform. The modular approach allows the students to learn in the comfort of their homes, with the guidance of their parents. The parents serve as home facilitators, but they are not teaching the subject matter. In modular learning, the students' efforts to accomplish their tasks or academic engagement may vary.

Student engagement is an essential component of higher-order learning and student achievement. People use the term "student engagement" to describe how excited and

passionate a student is about school. Modular distance learning (MDL) was implemented in almost all subjects in the different schools in the research area.

In this light, the researcher was enthralled by the prospect of investigating how effective the modular learning was as perceived by the students. It was also the aspiration of the researcher to work out how the students perceived the advantages, disadvantages, and challenges they encountered in the modular modality of learning. In addition, the researcher also endeavored to examine the role that students' academic engagement plays in the mathematics academic performance of the students. It is hoped that this study may be able to inspire stronger collaboration between the teachers, the school, and the parents by providing more opportunities for students to maximize their academic engagement in the modular distance learning.

This study endeavored to deal with the academic engagement, perceptions of modular distance learning and academic performance in Mathematics of the selected Second, Third Year and Fourth year students of the Bachelor in Secondary Education during the school year 2021-2022. Specifically, the study sought answers to the following questions: 1. What is the level of the students' academic engagement in terms of academic challenge, active learning, teacher-student interaction, and enriching educational experience? 2. What is the level of students' perceptions of modular distance learning in terms of perceived effectiveness, advantages, disadvantages and the challenges encountered by the students in modular distance learning? 3. What is the level of performance of the students in Mathematics as revealed by their test scores? 4. Is there a significant relationship between the students' academic engagement and their perceptions of modular distance learning? 5. Is there a significant relationship between the students' academic engagement and their Mathematics performance? 6. Is there a significant relationship between the students' perceptions of modular distance learning and the students' performance in Mathematics?

METHODOLOGY

The quantitative-correlational method of research was used. The adopted questionnaires with modifications were utilized as data gathering instruments. The data was treated with both descriptive and inferential statistics. The research locales were the Main Campus in Mati and the Dumingag Campus of J.H. Cerilles State College, School of Teacher Education, Zamboanga del Sur. This involved second, third, and fourth-year students enrolled during the school year 2021–2022.

The study used the simple random sampling where 70 students were the sample population from 90 BSEd Math students who were enrolled during the first semester of the school year 2021-2022. All students who took Mathematics as their major subject in the School of Teacher Education were invited to participate in the research through the google forms distributed to all group chats in the messenger of mathematics subjects. However, only 70 responded from 90 students.

The adopted questionnaires with modifications were utilized as data gathering instruments. The questionnaire consisted of two parts. The first part deals with the students' academic engagement, which consisted of adopted with modification items from the National Survey of Student Engagement [1]. The second part deals with the perceived effectiveness, advantages,

disadvantages, and challenges of modular distance learning. The items were obtained from the various readings examined and simplified by the researcher.

The research instruments underwent validation and reliability test. The questionnaires were subjected to face validity by the pool of Mathematics and Education from the School of Graduate Studies including the members of the committee of oral examination. The internal consistency of the items in the questionnaire was determined through Cronbach alpha coefficient. Statistical treatments were addressed using SPSS and an online data analysis calculator.

Data were treated with both descriptive and inferential statistics. The descriptive questions were analyzed and interpreted using the weighted average mean, and standard deviation. The tests of inference were done using the Spearman rho correlation to determine the significance of the relationship between the variables. Statistical treatments were addressed using the SPSS and online data analysis calculator.

RESULTS AND DISCUSDSIONS

Level of Students' Academic Engagement

The students' academic engagement was measured in terms of academic challenge, active learning, teacher-student interaction, and enriching educational experience.

Table 1 shows that students' coursework emphasized applying theories or concepts to practical problems or in new situations. The ability to compute, problem solve, and apply concepts and skills in mathematics influences multiple decisions in life. Learning mathematics helps the mind come up with useful ways that math can be used.

According to the National Research Council [2], mathematics is increasingly important in today's technologically advanced culture, where number sense and problem-solving skills are valued highly. According to the National Mathematics Advisory Panel [3], mathematics is also integrated into an individual's life in a variety of ways, including practical, civil, professional, recreational, and cultural. Embracing these ideas in mathematics teaching as relating concepts and theories to practical applications would strengthen the individual's decision-making skills and better equip them with lifelong skills. Projects that build subject mastery and critical-thinking abilities are one way to foster learner-content engagement. It refers to the substance of the course being authentic (Britt) [4].

The students' academic engagement in terms of active learning was considered high as evident in the overall mean of 3.64 as also shown in Table 1. The highest weighted average mean is directed towards 3.81, which pertains to the statement, "working with other students on projects".

Students have high academic engagement in the aspect of enriching educational experiences. Individual and group interactions with pupils help define academic standards. Effective study groups can help students learn course materials in a deeper, more concrete way. Groups generate positive energy, encourage active participation, instill discipline, and require commitments from members.

According to Lowyck and Pöysä [5], collaborative learning improves analytical skills and knowledge. Communication helped foster a sense of community and provided opportunities

to participate in class or institution communications. The grand mean of 3.68 indicates that pupils were generally academically engaged.

Table 1. *Students' Academic Engagement*

Statements	WAM	St.Dev	Interpretation
Academic Challenge			
1. Work harder than you thought you could meet your teacher's expectations or standards.	3.80	0.79	High
2. The coursework emphasized analyzing the basic elements of an idea, experience or theory, such as examining a particular case or situation in depth and considering its components.	3.99	0.75	High
3. The coursework emphasized making judgments about the value of information, arguments or methods, such as examining how others gather and interpret data and assessing the soundness of their conclusions.	3.89	0.87	High
4. The coursework emphasized applying theories or concepts to practical problems or in new situations.	4.11	0.89	High
5. Problem sets take one hour or less to complete.	3.34	1.03	Moderate
Grand Mean	3.83	0.86	High
Active Learning:			
1. Prepare an online presentation.	3.79	1.00	High
2. Work with other students on projects.	3.81	1.00	High
3. Work with other students outside of class to prepare assignments.	3.50	1.08	High
4. Tutor or teach other students.	3.50	0.95	High
5. Participate in community-based projects or volunteer as part of the study.	3.60	1.09	High
Grand Mean	3.64	1.03	High
Teacher-Student Interaction:			
1. Discuss grades or assignments with teachers.	3.74	1.09	High
2. Talk about my plans with teachers or adviser.			
3. Discuss ideas from readings or classes with teaching staff outside of class.	3.51	1.07	High
4. Work with other teaching staff aside from my teachers on activities other than coursework (such as research project of the department).	3.20	1.10	Moderate
	3.37	1.14	Moderate
Grand Mean	3.46	1.10	High
Enriching Educational Experiences			
1. Discuss ideas from readings or classes with teachers outside of class.	3.29	1.18	Moderate
2. Talk about academic and non-academic topics with classmates who have different religious	3.87	1.03	High

	beliefs, political opinions or personal values.			
3.	Plan to do volunteer work or community service.	3.74	0.95	High
4.	Participate in a study group.	4.21	0.92	Very High
5.	Participate in extra-curricular activities such as organizations, campus paper, clubs, societies and sports.	3.70	1.11	High
6.	Encourage contact among classmates from different economic, social and ethnic backgrounds.	4.06	1.01	High
	Grand Mean	3.81	1.03	High
	Overall Mean	3.68	1.00	High

Perceptions of the Students on Modular Distance Learning

Perceived Effectiveness. Generally, the students' perceptions of their modular distance learning were highly effective as reflected in Table 2. This is shown in the overall mean of 3.87, interpreted as "high." Most of the students noted that modular distance learning enabled them to build a sense of responsibility as the tasks are accomplished self-paced. Morrison et al. [6] explained that learners participating in self-paced learning programs work harder, learn more, and retain more of what they learn than do learners in conventional classes. Additionally, much evidence supports the belief that optimum learning takes place when a student works at his or her own pace, is actively involved in performing specific learning tasks, and experiences success in learning.

Some of the habits made by people who learn at their own pace may carry over into other educational activities, job duties, and personal behavior.

According to Ali et al.'s [7] study, "Effectiveness of modular teaching at the secondary level", the modular learning groups outperform the standard teaching groups. Modularization also improved teaching methods. The study found that modular remote learning can be used in regular classes at every level.

Moreover, Sadiq and Zamir [8] demonstrated that modular teaching is more effective in teaching Master in Educational Planning and Management students. This method can be used in a wide range of professions, fields of study, and levels of education because it meets the needs of students at all levels.

In the same vein, Sadiq [9] claims that modular teaching is more effective for university students than traditional teaching approaches because the students learn at their own speed.

Table 2. *Perceived Effectiveness of Modular Distance Learning*

	Statements	WAM	St.Dev	Interpretation
1.	Students set their own schedule in finishing the tasks in the module.	3.57	1.06	High
2.	Students have their own way of learning that would work for them.	4.07	0.85	High
3.	Builds students' sense of responsibility as the tasks are accomplished through self-paced.	4.10	0.93	High
4.	Students become inquisitive and creative in	3.86	0.95	High

	looking for answers to their questions prior to the activities as the resources are not always in the form of online resources.			
5.	Students are given simplified contents which means easier to grasp and with key points included as supplements to the books as reference.	3.77	0.94	High
	Overall mean	3.87	0.94	High

Perceived Advantages of Modular Distance Learning. The overall mean of 3.88 implies that modular distance learning was highly advantageous among the students. The highest weighted average mean was attributed to the statement, "more variety and flexibility for students and teachers," with a 4.06. There is flexibility as regards time, learning, and anywhere and anytime. In modular distance learning, students can find their own pace to focus on their academic subjects and their time is in their hands. This helps the students think critically and deeply to understand what they are studying without any barriers. Distance learning also has a flexible schedule. Students manage their own time, so basically, they should be responsible for their time management.

Morrison [6] noted that the instructor's roles in modular distance learning have become flexible. There is less time spent on making presentations and more time is devoted to addressing learners in group sessions, consulting with individual students, and managing the learning environment.

Table 3A. *Perceived Advantages of Modular Distance Learning*

	Statements	WAM	St.Dev	Interpretation
1.	More choices and self-pacing for students.	3.86	0.82	High
2.	More variety and flexibility for students and teachers.	4.06	0.79	High
3.	Increases adaptability of instructional materials.	3.93	0.82	High
4.	Helpful for students as the materials are spelled out in detail.	3.79	0.86	High
5.	Provides a balanced, chronological presentation of contents and information.	3.86	0.87	High
6.	Serves as resource book for students.	3.84	0.97	High
7.	Provides all the activities and exercises needed in the teaching and learning process.	3.84	0.95	High
8.	Ensures uniformity in relation to contents to be taught especially within the institution.	3.89	0.86	High
	Grand Mean	3.88	0.86	High

There are also a variety of instructional materials in modular distance learning. Students are provided with differentiated learning. Instructional materials may come in the form of printed materials like guided study assignments, specially written textbooks, packets of pictures for visual learners, directed reading, using the resources of libraries, assignments of work for tutorial comments, and instruction for the use of scientific kits.

Perceived Disadvantages of Modular Distance Learning. The grand mean of 3.38 denotes that the students considered the disadvantages of modular distance learning to be moderate. There are some items which were noted by most of the students as highly disadvantageous. The greater administrative resources needed to track students, the fact that some teachers may end up being reliant on the modules, and the fact that they do not cater to students with different learning styles and needs were highlighted by the students as high advantages.

The study of Dangle and Sumaoang [10] supported these claims when they revealed that one of the main challenges that emerged in the implementation of modular distance learning is that budget is not enough in the making and delivery of modules. In addition, Strada [11] pointed out that some modules have limited examples, and these are not perfect. Modules vary by school and by teacher. Some students may be lucky enough to have a well-explained curriculum, but others may not. Due to the lack of standard literature, learning levels vary.

As regards the module not catering to students with different learning styles and needs, it is observed that most of the modules address only the reading and writing skills of the students. There are few visual presentations and illustrations. While some modules have links to video presentations, demonstrations, and simulations, students with inadequate internet connections may not have the opportunity to view these files. Students are reliant on the printed texts and discussions prepared in the modules. Without other learning resources such as books and general references from the library or the instructor's discussions during the face-to-face classes, students are left with having the module as their only source of information. If students don't have their instructors or peers to remind them of their duties, they're more likely to get distracted and miss deadlines.

Table 3B. *Perceived Disadvantages of Modular Distance Learning*

Statements	WAM	St.Dev	Interpretation
1. Requires greater self-discipline and self-motivation for students.	3.24	0.89	Moderate
2. Greater administrative resources needed to track students.	3.80	0.83	High
3. Some teachers may end up being reliant on the modules.	3.71	0.91	High
4. Does not cater for students with different learning styles and needs.	3.59	1.03	High
5. Limits the creativity of the teachers and students.	3.20	1.15	Moderate
6. May not be outcome or performance based.	3.19	0.98	Moderate
7. Teaching and learning become boring.	2.94	1.22	Moderate
8. Students may see the modules as the only source of information.	3.37	1.16	Moderate
Grand Mean	3.38	1.00	Moderate

Perceived Challenges of Modular Distance Learning. This school year is the second year that DepEd has implemented modular distance learning as an alternative modality of instruction. While this type of learning is beneficial to students because it helps prevent the spread of COVID-19 disease, students also face several difficulties and challenges. One of these is the

lack of reliable internet connectivity. As observed from the responses of the students, the challenges of modular distance learning were generally high, as revealed by the grand mean of 3.86. Specifically, the students emphasized these challenges, like accessibility to the internet and the unstable internet connection.

Although the students learned through modular distance learning, the internet is still needed for most students to research for better understanding. The students have difficulty accessing the internet, especially in remote and far-flung areas, especially if there is no network signal. As a result, students must still find a location away from their homes to connect to the internet and conduct research. This is supposedly against the purpose of distance learning, but most students are forced to leave their homes because of the lack of internet access. Inability to upload or download learning materials, internet not working in certain rooms or areas of the household, too many simultaneous internet users, or internet only working during off-peak hours are all examples of connectivity issues.

Table 3C. *Perceived Challenges of Modular Distance Learning*

Statements	WAM	St.Dev	Interpretation
1. Accessibility of internet.	3.94	0.98	High
2. Unstable internet connection.	3.94	1.21	High
3. Lack of gadgets.	3.90	1.20	High
4. Lack of references.	3.81	1.07	High
5. Retrieval of outputs.	3.69	1.03	High
Grand Mean	3.86	1.10	High

Level of Academic Performance of the Students in Mathematics

Table 4 shows the level of performance of the students in mathematics. It is revealed that most of the students have very good levels of academic performance in mathematics. Their grades range from 2.0 to 1.75. 35 students or 50.00 got this grade range. There were also those whose academic performance was considered excellent, at 23 or 32. 86 percent of the 70 students received excellent (1.50–1.00) grades. The students' level of performance in Mathematics was determined by the average grade they received in all of the mathematics subjects they took throughout their course. These findings imply that most of the students were working at their best in understanding the concepts, achieving computational skills and solving problems successfully.

Table 4. *Academic Performance of the Students in Mathematics*

Academic Performance	Frequency	Percentage
Excellent (1.50 – 1.00)	23	32.86
Very Good (2.0 – 1.75)	35	50.00
Good (2.5 – 2.25)	12	17.14
Passed (3.0 – 2.75)	-	-
Total	70	100.00

Test for the Significant Relationship Between the Students' Academic Engagement and Their Perceptions of Modular Distance Learning

The Spearman rho correlation coefficient was obtained to determine the significance of the relationship between the students' academic engagement and their perceived effectiveness of modular distance learning. Table 5 shows the data analysis.

Table 5. *Correlation matrix for students' academic engagement and perceptions of modular learning*

Variables	Effectiveness of Modular Learning	Advantages of Modular Learning	Disadvantages of Modular Learning	Challenges of Modular Learning
Academic Challenge	0.555**	0.478**	0.378**	0.070
Active Learning	0.331**	0.505**	0.279*	0.079
Teacher-Student Interaction	0.384**	0.484**	0.168	0.179
Enriching Educational Experiences	0.363**	0.332**	0.071	0.271*

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The Spearman rho correlation coefficients were calculated to find the significant relationship between the academic engagement measures and the perceptions of the students on modular distance learning.

The data manifests that academic challenge was significantly related to the perceptions of the students on modular distance learning in terms of its effectiveness, advantages, and disadvantages at 0.01 probability level.

While the active learning construct of academic engagement was significantly related to perceptions of the students on modular distance learning in terms of its effectiveness, advantages, at 0.01 probability level; and disadvantages at 0.05 probability value.

The teacher-student interaction and enriching educational experiences were significantly related to the effectiveness, and advantages of modular distance learning at 0.01 probability level.

Enriching educational experience was significantly related to the challenges of modular distance learning at the probability level of 0.05.

There is a significant relationship between academic engagement and the perceived effectiveness of modular distance learning. Students gain new abilities by reflecting on their own experiences. Using modules with the topics provided engages students in learning. The tasks created a sense of responsibility and they advanced independently. They were empowered, had real-life experiences, learned new things, and applied their knowledge.

On the contrary, their momentum of engagement has also made them aware of the disadvantages of modular distance learning, such as requiring greater self-discipline and

sometimes restricting the creativity of the teachers for some modules. Some students rely solely on the modules for information because they do not have adequate access to an internet connection or online learning resources.

Furthermore, it can also be observed that the more the students were engaged academically, the more they identified challenges with learning using modular instruction. They realized that working out with their projects, such as preparing multimedia presentations, preparing case studies and reports, analysis of data, problem solving, and doing group work and projects, presents challenges that they have encountered. Among these are accessing digital information through the internet, online resources, and retrieval of work outputs shared by groupmates in a group project and even downloading information and resources shared by their classmates and teachers through shared folders and shared drives.

Table 6. *Correlation matrix for students' academic engagement and Mathematics Performance*

Variables	Correlation Coefficient	p-value	Decision
Academic Challenge	0.043	0.721	Not Significant
Active Learning	0.144	0.233	Not Significant
Teacher-Student Interaction	0.112	0.356	Not Significant
Enriching Educational Experiences	0.114	0.347	Not Significant

The academic engagement of the students in modular distance learning has no bearing on their academic performance in mathematics. This is based on the analysis of the t-value of r (0.319), which is below the critical t-value of 1.671, leading to the non-significance of the relationship between the academic engagement and academic performance of students in mathematics.

This finding is not supported by the findings of several studies that delved into students' engagement and academic success or performance. According to Svanum and Bigatti [12], "Contemporary student learning models highlight student participation and effort as crucial variables in course success" (p. 564). Similarly, classroom engagement leads to excellent outcomes (Sims, Burke, & Salas) [13]. When Burch et al. [14] looked at academic course engagement, they found that it was a good predictor of how well a student learned and grew.

Table 7. *Correlation matrix for students' perceptions of modular distance learning and Mathematics Performance*

Variables	Correlation Coefficient	p-value	Decision
Effectiveness of Modular Distance Learning	0.024	0.302	Not Significant
Advantages of Modular Distance Learning	0.083	0.495	Not Significant
Disadvantages of Modular Distance Learning	0.123	0.309	Not Significant
Challenges of Modular Distance Learning	0.016	0.893	Not Significant

Ho: There is no significant relationship between the students' perceptions of modular distance learning and students' mathematics performance.

It is shown in Tables 7 shows the summary of the tests for significant relationship between the perceptions of modular distance learning of the students and their Mathematics performance. There is no significant relationship between the perceived effectiveness of modular distance learning and the students' mathematics performance. The correlation coefficient of 0.125 is not significant at 0.302 probability level. This suggests that even if most of the students might find modular distance learning effective, their mathematics performance is still not impressive. For some students, modular instruction may have positive implications that enhance their independence and critical and logical thinking skills, but these may not be applicable to everyone.

It can be observed that after the deployment of modular distance learning, learners' academic performance suffered a significant decline. That is, face-to-face instruction is more successful and favorable from the perspective of the students. As a result, it was discovered that modular distance learning had more negative consequences than favorable consequences. According to the reasons given by the respondents who were used in this study, modular distance learning negatively impacts students' learning. Initial problems include minimal engagement between the teacher and his or her pupils. The final point is that the modules contain far too many assignments and activities.

The findings shown above were in conflict with those of prior research undertaken by Lim [15], Khalil and Yousuf [16] and Jazim, Anwar, and Rahmawati [17]. According to Lim's [15] research on the efficiency of modular instruction in word problem solving for BEED students, modular instruction is a beneficial technique to learn. According to Khalil and Yousuf [16], students who were taught using the modular method performed better than students who were taught using the traditional way. Jazim, Anwar, B., and Rahmawati ([17] found that using constructivism-based mathematics modules as a means to implant the concept of algebra operation was extremely effective in improving students' mathematical understanding of algebra operation material. Observational research on the use of modules in mathematics acquisition found that students with high academic ability actively participated in the debate.

The table also indicates that the correlation coefficients of 0.083 is not significant at the 0.495 p-value; 0.123 is not significant at the 0.309 p-value, and 0.016 is not significant at the p-value of 0.893. This suggests that the null hypothesis is not rejected. Hence, there is no significant relationship between the perceived advantages, disadvantages, and challenges of the students and their mathematics performance.

In the mathematics classroom, students are exposed to opportunities that encourage them to develop and engage in their mathematical thinking. Differentiated instruction through flexible grouping, individualizing lessons, and using tiered assignments were some of the best practices for mathematics instruction before the pandemic. All of this necessitates a natural face-to-face connection between the teacher and the students, which was severely limited in the modular approach to learning.

Although most students have identified and perceived the effectiveness of modular distance learning and noted the advantages, disadvantages, and challenges they faced and experienced with modular distance learning, these were not related to the efforts they exerted in

understanding the concepts of mathematics, acquiring computational skills, and developing critical and problem-solving abilities in mathematics.

Unfortunately, the above findings were not aligned with the findings of several researches which dealt with modular distance learning. Lim [15] found that modular instruction in mathematics, particularly in word problem solving, is an effective method of teaching. Moreover, Khalil and Yousuf [16] discovered that students in the modular form scored higher in their paper on the influence of modular approach teaching on secondary school mathematics achievement. Based on the Constructivism Approach as Media to Implant the Concept of Algebra, the implementation of constructivism-based math modules improved students' mathematical knowledge of algebra operation material. Furthermore, students who had good academic skills were involved in the discussion when using modules to learn math. Furthermore, Rahmawati, Lestari, and Umam, [18] reported that students who used learning modules had more remarkable average mathematics learning outcomes than students who did not utilize learning modules.

CONCLUSIONS AND RECOMMENDATIONS

The students considered their academic engagement as high as they engaged themselves in applying theories or concepts to practical problems or in new situations, working with other students on projects, and discussing grades or assignments with teachers. The majority of the students considered the modular distance learning highly effective as this facilitated them in building their sense of responsibility as the tasks are to be accomplished through self-paced. The modality was highly advantaged due to variety and flexibility for students and teachers. The disadvantages with the modular distance learning are focused on the need for greater administrative resources to track students' completion of tasks. The accessibility and instability of internet connectivity were noted as most challenging for the students. The students have generally acquired and accomplished the key performance indicators set in the different mathematics subjects in the Bachelor of Secondary Education – Mathematics curriculum. The students' academic engagement does not account for the students' positive and favorable perceptions on modular distance learning. The students' academic engagement has nothing to do with their academic performance in Mathematics. The students' academic performance in Mathematics is not based on their perceptions of the modular distance learning. The non-correlation between the students' engagement and academic performance may be due to the fact that the academic performance of the students was based on the average grade of the students in all their Mathematics subjects. A considerable number of these Mathematics were taken by the students during when the modular distance learning was not yet instituted or instruction has just used modular distance learning. The students have yet to feel their experiences with the modular distance learning.

Researchers studied the relationship between academic engagement, modular distance learning, and academic performance. They found that teachers should be more student-centered and provide more engaging activities for students to work together on projects or group work assignments. Parents should constantly encourage and guide their children in completing assignments, projects, exams, and modules.

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