

Motivational Factors and Academic Performance among Learners in Tagoloan District, Misamis OrientalFederiza Ronquillo-Elvina^{[1][2]}, Erlinda A. Quirap^[2]^[1]Corresponding Author, Tagoloan National High School,
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Abstract. The Department of Education's main aim is to ensure top-tier education for every Filipino student. This study in Tagoloan District assesses motivational factors and academic performance to support this goal. The study aimed to determine the motivational factors, academic performance, and their relationship among 563 students from three public high schools in Tagoloan District, Misamis Oriental, Philippines, using a descriptive-correlational research design and a questionnaire adapted from Lepper (2005). The study found high levels of both intrinsic and extrinsic motivational factors, marked as "True for Me." Academic performance in Filipino, English, Mathematics, Science, and Araling Panlipunan for the 1st and 2nd Quarter was very satisfactory. There was no significant relationship between motivational factors and academic performance, except for intrinsic curiosity and independent mastery. Most participants were internally motivated, yet their external motivators mirrored their intrinsic drives. Teachers should clearly communicate goals and expectations to students for better understanding.

Keywords: Motivational Factors, Academic Performance, Intrinsic Motivation, Extrinsic Motivation

Introduction

Each human being is different, so each learner requires motivation uniquely. Motivation is a predictor of academic performance among students. Hence, it must be investigated because it would allow teachers to create a supportive and engaging learning environment that promotes academic success and personal growth. Academic performance is another variable that needs to be looked into. Monitoring students' performance holds significant importance within the teaching-learning process. This practice furnishes teachers with insights into necessary actions for enhancing, sustaining, or ameliorating the teaching and learning dynamics. Moreover, it encourages students to feel motivated and challenged to excel in their academic pursuits.

Regrettably, the Philippines performed poorly in reading comprehension, mathematics, and science according to the Programme for International Student Assessment (PISA), ranking last in reading and second to the lowest in mathematics and science. This assessment aligns with the National Achievement Test results in 2018, which showed a declining trend among grade 10 students, with scores dropping from 53.77 in 2014 to 44.08 in 2017, with a slight increase to 44.59 in 2018 (Tagupa, 2019).

Psychologists have recognized the significance of considering motivation in education due to its dynamic connection with acquiring new knowledge, skills, strategies, and behaviors (Mehndroo & Vandana, 2020). In addition, the drive of learners plays a crucial role in education, especially when it comes to achieving academic performance. Academic performance can be understood as a combination of mental and emotional stimulation that compels us to pursue a particular goal or outcome. Hence, it is essential to determine the motivational factors of the learners and their relationship with academic performance.

Aside from motivational factors, this research has also investigated another variable: the academic performance of students. Academic performance is where the entire education system revolves. It can be defined as the knowledge gained by the student, which is assessed by marks by a teacher and/or educational goals set by students and teachers to be achieved over a specific period (Kumar et al., 2021). Monitoring students' academic performance is essential, especially since all sectors in our country have been affected by the pandemic.

Buzdar et al. (2017) employed intrinsic motivation through its subscales, which were challenge, curiosity, and independent mastery, as well as its extrinsic motivation, which was easy work, pleasing the teacher, and dependence on the teacher. The intrinsic and extrinsic subscales were then correlated with the subscales of academic performance.

However, there are inconsistent findings in various research papers regarding the relationship between motivation and academic performance. Moreover, Naz et al. (2020) found that motivation was positively related to students' academic performance. Similar results were also seen in the study of Sabarun et al. (2020) when intrinsic and extrinsic motivations were correlated with writing performance. Further, many researchers obtained strong, positive, and significant results when intrinsic, extrinsic, and overall motivation were correlated with academic performance. Yarin et al. (2022) found that the relationship between intrinsic motivation and academic performance is significant, positive, weak, and similar to extrinsic motivation. The computed value reveals that there is no significant relationship between extrinsic aspirations and academic performance.

In the context of the researcher's classroom, the students seem to be motivated to attend their classes due to the long period of modular and blended learning. The students' attendance is relatively high, and many of them come to class on time. However, their motivation and enthusiasm do not translate into high formative and summative assessment results. The written and oral performances were observed to be very low for most students.

With the given premise, the researcher was interested in investigating motivational factors and learners' academic performance in various subjects in Tagoloan District, Misamis Oriental.

Methodology

Research Design

This study employed a descriptive-correlational method of research to investigate the relationship between intrinsic and extrinsic motivational factors and academic performance. The correlational method of research was utilized to explore patterns, associations, and connections between these variables. The study focused on assessing the motivational factors, specifically intrinsic and extrinsic motivation, and their impact on academic performance, as measured by the general weighted average grades during the 1st and 2nd Quarters of the 2022-2023 School Year. The independent variables consisted of intrinsic motivation factors such as Challenge, Curiosity, and Independent Mastery, as well as extrinsic motivation factors including Easy Work, Pleasing Teacher, and Dependence on Teacher. Meanwhile, the dependent variables were the participants' grades in Filipino, English, Mathematics, Science, and Araling Panlipunan.

Research Setting

The study was conducted in the Tagoloan district. Tagoloan Misamis Oriental. It is a public educational institution founded in 1969. It offers education for Junior and Senior High School. The Technical-Vocational-Livelihood track is offered for senior high school. The school is also recognized by the Department of Education (DepEd). It is located in the Municipality of Tagoloan, which is categorized as 1st class Municipality in the Province of

Misamis Oriental, Philippines. It is situated to the east of Cagayan de Oro City and southeast of the Macajalar Bay. According to the 2020 census, it has a population of 80,319 people.

Tagoloan total land area of 7,938 hectares represents 2.24 percent of Misamis Oriental's total area of 354,770 hectares. Among the barangays, Sta Ana is the largest, comprising 37 percent of the municipality's land area. Barangays Rosario, which includes contested areas between Municipality of Tagoloan and Municipality of Malitbog, Bukidnon and Sta Cruz, occupy relatively bigger areas (11.2%) than the other nine barangays.

The land area of Tagoloan is suitable for six major uses, which include protection forest, plantation forest, rice, tree and vine, pasture and cultivated crops. About 2,405 hectares or 30 percent of Tagoloan's total area are suitable for forest uses. Rice land is suitable for 2,199 hectares or about 28 percent, while the cultivation of annual crops are suited for 2,024 hectares or about 25 percent.

The selection of these schools was based on factors such as their convenient geographical location, availability of transportation, and logistical considerations. Additionally, the willingness of school administrators, teachers, and participants to actively participate, support the study, and collaborate in data collection played a significant role in their selection.

Moreover, the schools are readily accessible to the researcher, which can make it convenient for conducting experiments, gathering data, and making observations. Safety is also being considered in the selection of these schools. Conducting research in a familiar environment like your school can enhance safety. It is likely familiar with safety protocols and can easily access first-aid supplies or help if needed.

The faculty and staff members within these three schools possess a wealth of knowledge and experience that can significantly benefit the research process. Their familiarity with the school's resources, facilities, and administrative procedures makes them valuable sources of guidance and support. They can offer invaluable insights into the logistical aspects of the research, helping to streamline data collection, secure necessary materials, and ensure adherence to safety protocols. Furthermore, their availability for supervision and mentorship ensures that students receive the necessary assistance and direction throughout the research journey, enhancing the quality and rigor of the scientific investigations.

Respondents and Sampling Procedure

The respondents of this study were the five hundred sixty-three (563) Grade 7 learners from Tagoloan District Misamis Oriental, School Year 2022-2023. Slovin's formula was used to arrive at the sample size with 7% margin of error and a population of 1, 348 learners. Stratified sampling was also used to obtain the percentage and the appropriate number of respondents in every school. This is done by dividing the computed sample size by its population.

Table A. The distribution of respondents by school

SCHOOL	Population	Respondents
Tagoloan National HS	885	275
Casinglot National HS	292	169
Sta. Ana National HS	171	119
TOTAL	1,348	563

Research Instrument

The instrument that was used in gathering the necessary data is a questionnaire composed of two parts. Part I dealt with motivational factors such as intrinsic and extrinsic. Intrinsic motivation includes challenge, curiosity, and independent mastery. At the same time, extensive

motivation includes easy work, pleasing teacher, and dependence on teacher. The questionnaire is adopted from the work of Lepper as cited by Budzar (2017) in his study titled intrinsic and extrinsic motivational orientations in the classroom. Part II elicited on the learner's academic performance on Filipino, English, Mathematics, Science, and Araling Panlipunan in the 1st and 2nd Quarter of S.Y. 2022-2023. This is based from the class record and learners' average grade found in Form 138 in the said quarter. The grading scale is based approval on DepEd Order #8 s. 2015.

Data Gathering Procedure

The researcher sought endorsement to conduct research from the Dean of Graduate Studies at PHINMA Cagayan de Oro College. A request letter was sent to the Schools Division Superintendent of Misamis Oriental to gather data. With the approved communication letter, it was presented to the Public Schools District-in-Charge of the said Districts and to the Principals of the schools where the study was conducted. The researcher approached and informed the school head of the research locale about it. The school head from each school then informed the teachers. Before the administration of the test, a letter of consent was sent to the parents of the participants who are 18 years old below. The researcher visited the location of the schools, distributed the questionnaire by school and administered the test with the help of the Science teachers during the 1st period of each class. The respondents were given enough time to answer the questionnaire.

The data was collected using Google Forms which lasted for one week. For schools that do not have internet connection or weak connection, the researcher personally retrieved the questionnaire after one week. The data was analyzed using the appropriate statistics in order to extract its underlying meaning.

System of Scoring

The following variables and its system of scoring are presented below:

Part I. Motivational Factors

Scale	Range	Description	Interpretation
5	4.50-5.00	Very True for Me	Very High
4	3.50 – 4.49	True for Me	High
3	2.50 – 3.49	Neutral	Moderate
2	1.50 – 2.49	Not True for Me	Low
1	1.00 – 1.49	Not at all True for Me	Very Low

Part II. Academic Performance (Source: DepEd Order #8, s. 2015)

Grading scale	Description
90-100	Outstanding
85-89	Very Satisfactory
80-84	Satisfactory
75-79	Fairly Satisfactory
Below 75	Did not Meet Expectations

Statistical Treatment

The collected data underwent analysis utilizing the following statistical tools:

Descriptive statistics, such as frequency, percentage, mean, and standard deviation, were utilized to describe the variables in the study. These are reflected in the findings for the problems where the statistical data are needed. Additionally, the Pearson Product Moment

Correlation (r) was employed to determine the significant relationship between motivational factors and learners' academic performance.

Table 1. Distribution of the Level of Learners Intrinsic Motivational Factor as to Challenge

Indicators	Mean	SD	Description
I like to learn as much as I can in school.	4.63	0.65	Very true for Me
I like hard work because it's a challenge.	4.26	0.83	True for Me
I like those school subjects that make me think pretty hard and figure things out.	4.07	0.89	True for Me
I like difficult schoolwork because I find it more interesting.	3.91	0.90	True for Me
I like difficult problems because I enjoy trying to figure them out.	3.75	0.98	True for Me
I like to go on to new work that's at a more difficult level.	3.71	0.95	True for Me
Overall	4.06	0.87	True for Me

Table 1 presents the distribution of the intrinsic motivational factor in terms of challenge with an overall mean of 4.06 ($SD=0.87$), described as True for Me. This means that the respondents innate drive for learning is to test their abilities, overcome obstacles, and achieve personal growth.

Looking closely at the results, it reveals that the indicator I like to learn as much as I can in school had the highest mean rating of 4.63 ($SD=0.65$), described as True for Me. This means that the students manifest that they are truly motivated to learn in school. On the other hand, the students had the lowest rating for the indicator I like to go on to new work that's at a more difficult level with a mean of 3.71 ($SD=0.95$), described as True to Me. This means that the students are not confident to engage in a more challenging work in school.

Table 2. Distribution of the Level of Learners Intrinsic Motivational Factor as to Curiosity

Indicators	Mean	SD	Description
I work really hard because I really like to learn new things.	4.41	0.76	True for Me
I ask questions in class because I want to learn new things.	4.25	0.93	True for Me
I do my schoolwork to find out about a lot of things I've been wanting to know.	4.24	0.83	True for Me
I read things because I am interested in the subject.	4.19	0.91	True for Me
I work on problems to learn how to solve them.	4.18	0.92	True for Me
I do extra projects because I can learn about things that interest me.	3.89	0.98	True for Me
Overall	4.19	0.89	True for Me

Table 2 presents the distribution of intrinsic motivation in terms of the sub-variable curiosity with an overall mean of 4.19 ($SD=0.89$), described as True for Me. Overall, this means that the participants possessed a high considerable level of curiosity and actively participated in educational pursuits during their time in school.

The highest mean score is for the indicator I work hard because I really like to learn new things with a mean of 4.41 (SD=0.76), described as True for Me. This means that the participants are learning and have high and strong intrinsic motivation to acquire new knowledge and skills. On the other hand, the indicator, I do extra projects because I can learn about things that interest me got the lowest mean score of 3.89 (SD=0.98), described as True for Me. Categorically, this means that the participants have a strong intrinsic motivation to learn and are interested in pursuing knowledge and skills related to their personal interests.

Table 3. Distribution of the Level of Learners Intrinsic Motivational Factor as to Independent Mastery

Indicators	Mean	SD	Description
I like to try to figure out how to do school assignments on my own.	4.27	0.83	True for Me
When I make a mistake I like to figure out the right answer by myself.	4.11	0.86	True for Me
When I don't understand something right away I like to try to figure it out by myself.	3.97	0.94	True for Me
If I get stuck on a problem I keep trying to figure out the problem on my own	3.95	1.00	True for Me
I like to do my schoolwork without help	3.83	1.01	True for Me
Overall	4.03	0.93	True for Me

Table 3 presents the distribution of intrinsic motivational factor as to independent mastery with an overall mean of 4.03(SD=0.93), described as True for Me or High. This means that a high level of preference for independent mastery. This further means that they are driven by an innate desire to learn and improve their skills rather than by external factors such as grades or praise.

The highest mean score is indicator I like to try to figure out how to do school assignments on my own, with the highest mean score of 4.27(SD=0.83), described as True for Me. This means that most of the participants prefer to work on their school assignments independently. Conversely, the indicator, I like to do my schoolwork without help, has a mean score of 3.83 (SD=1.01), described as True for Me. This means that participants value independent learning and prefer working on their schoolwork without assistance from others.

Table 4. Distribution of the Level of Learners' Extrinsic Motivational Factor as to Easy Work

Indicators	Mean	SD	Description
I like to learn just what I have to in school.	4.13	0.98	True for Me
I like easy work that I am sure I can do.	4.09	0.99	True for Me
I like school subjects where it's pretty easy to just learn the answers.	4.05	1.00	True for Me
I like to stick to the assignments which are pretty easy to do.	3.89	0.99	True for Me
I don't like difficult schoolwork because I have to work too hard.	3.01	1.21	Neutral
I don't like to figure out difficult problems.	2.96	1.13	Neutral
Overall	3.69	1.05	True for Me

Table 4 presents the distribution of extrinsic motivational factor as to easy work with an overall mean 3.69 (SD=1.05), described as True for Me or high. This means that the participants preferred tasks that are relatively simple and do not require a high degree of cognitive effort or problem-solving skills.

The highest indicator **I like to learn in school**, has a mean score of 4.13(SD=0.98), described as True for me or High. This indicates that the participants tend to agree with the statement. This means that the participants are not interested in learning beyond the minimum requirements and is motivated only by external factors such as grades or teacher approval. However, the indicator, **I don't like to figure out difficult problems**, has a mean score of 2.96(SD=1.13), described as Neutral. This means that the participants may lack confidence in their ability to solve complex problems or may not have a growth mindset that embraces challenges as opportunities for learning.

Table 5. Distribution of the Level of Learners Extrinsic Motivational Factor as to Pleasing Teacher

Indicators	Mean	SD	Description
I do my schoolwork because the teacher tells me to.	4.08	1.11	True for Me
I read things because the teacher wants me to.	3.92	1.13	True for Me
I work on problems because I'm supposed to.	3.92	1.02	True for Me
I ask questions because I want the teacher to notice me	3.27	1.27	Neutral
Overall	3.80	1.13	True for Me

Table 5 above presents the distribution of the extrinsic motivational factor in terms of pleasing teacher with an overall mean of 3.80 (SD=1.13), described as High. This means that students who have a strong desire to please their teachers may have higher levels of extrinsic motivation. The participants in this work moderately performs their task in school for the sake of pleasing the teacher.

The indicator **I do my schoolwork because teacher tells me** to get the highest mean of 4.08(SD=1.11), described as True for Me. This means that the respondents tend to engage in academic tasks because they are expected to do so by their teacher. On the other hand, the indicator I ask questions because **I want the teacher to notice me** got a mean rating of 3.27 (SD=1.27), described as True for Me. It means that the respondents tend to ask questions in class to gain the attention of their teacher.

Table 6. Distribution of the Level of Learners Extrinsic Motivational Factor as to Dependence on Teacher

Indicators	Mean	SD	Description
When I make a mistake I like to ask the teacher how to get the right answer.	3.83	1.124	True for Me
If I get stuck on a problem I ask the teacher for help.	3.83	1.089	True for Me
I like the teacher to help me plan what to do next.	3.64	1.128	True for Me
I like to ask the teacher how school assignments should be done.	3.69	1.094	True for Me
When I don't understand something right away I want the teacher to tell me the answer.	3.15	1.326	Neutral
I like to have the teacher help me with my schoolwork	3.10	1.279	Neutral
Overall	3.54	1.17	True for Me

Table 6 above presents the distribution of the extrinsic motivational factor in terms of dependence on teacher with an overall mean of 3.54 (SD=1.17) described as True for Me or High. This means that students rely on their teachers for motivation, guidance, and direction to their learning. This implies that the students maybe problematic since dependence on teacher as it may lead to a lack of independence and self-regulation in learning.

In addition, the indicator **When I make a mistake I like to ask the teacher how to get the right answer** had the highest mean rating of 3.83 (SD=1.124), described as True for Me. This means that the participants are open to feedback and willing to seek guidance from their teacher when they encounter challenges or make mistakes. This type of behavior reflects a growth mindset, where the student views mistakes as opportunities for learning and improvement. Conversely, the indicator **I like to have the teacher help me with my schoolwork** had the lowest mean score of 3.10 (SD=1.1279), described as Neutral. This means that the participants were moderately dependent on their teacher for academic support.

Table 7. Summary of the Level of Learners' Motivational Factors as to Intrinsic and Extrinsic

Motivational factor	Mean	SD	Description
Intrinsic			
Curiosity	4.19	0.89	True for Me
Challenge	4.05	0.87	True for Me
Independent mastery	4.03	0.93	True for Me
Overall	4.09	0.90	True for Me
Extrinsic			
Easy Work	3.69	1.05	True fo Me
Pleasing Teacher	3.80	1.13	True for Me
Dependence on Teacher	3.54	1.17	True for Me
Overall	3.68	1.12	True for Me
OVERALL	3.89	1.01	True for Me

Table 7 presents the summary of intrinsic and extrinsic motivation with overall mean rating of 3.89 (SD=1.01), described as True for Me. This means that the respondents had high level of motivational factors in terms of intrinsic and extrinsic motivations. The overall rating of the participants in terms of intrinsic motivation is 4.09 (SD=0.90).

Among the sub-variables of intrinsic motivation, curiosity had the highest mean rating of 4.19 (SD=0.89), described as True for Me. This means that most of the participants are very curious and eager to learn and perform the activities in school. However, extrinsic motivation had the lowest mean rating of 3.68 (SD=1.12), described as True for Me. It can be categorically similar to that of intrinsic motivation, which is described as High.

Table 8. Distribution of the Level of Learners Academic Performance in the 1st and 2nd Quarter

Learning Areas	1st Quarter			2nd Quarter			Overall		
	Mean	SD	Description	Mean	SD	Description	Mean	SD	Description
Filipino	88.41	3.96	Very Satisfactory	88.6	4.22	Very Satisfactory	88.51	4.09	Very Satisfactory
English	87.10	4.52	Very Satisfactory	86.9	4.58	Very Satisfactory	87.00	4.55	Very Satisfactory
Math	87.93	3.91	Very Satisfactory	87.9 4	Very Satisfactory		87.92	3.96	Very Satisfactory
Science	87.12	4.66	Very Satisfactory	87.1	4.8	Very Satisfactory	87.11	4.73	Very Satisfactory
Araling Panlipunan	88.76	4.27	Very Satisfactory	88.8	4.39	Very Satisfactory	88.78	4.33	Very Satisfactory
Overall	87.87	4.26	Very Satisfactory	87.8	3.62	Very Satisfactory	87.84	3.94	Very Satisfactory

Table 8 presents the distribution of learners' academic performance in the 1st and 2nd Quarters across different learning areas with an overall mean of 87.84 (SD = 3.94) described as Very Satisfactory. It means that the respondent's performance is very satisfactory.

Among the various academic subjects, Araling Panlipunan exhibited the highest mean performance, with a mean score of 88.78 (SD=4.33), described as Very Satisfactory. The result is in accordance with the result of Guarin and Salcedo (2018) that grade bracket of 85-89 with a frequency of 119 or 40.3 percent topped the list while only 9 or 3.1 percent got 75-79. These results indicate that the student's mastery of the fundamental concepts, historical events, and societal dimensions encompassed within Araling Panlipunan. On the other hand, English subject had the lowest mean of 87.00 (SD=4.55) described as Very Satisfactory. This means that the participants may be facing some challenges in developing proficiency in English, which is an important language for communication and learning in the global context.

Table 9. Result of the Test on Relationship Between Motivational Factors and Learners Academic Performance

	Learner's Academic Performance					
	Filipino	English	Math	Science	Araling Panlipunan	Overall interpretation
Intrinsic Motivational Factors						
Challenge	0.038	0.038	0.098*	0.087*	0.017	0.068/NS
Curiosity	0.113**	0.120**	0.226**	0.151**	0.128**	0.178**/S
Independent Mastery	0.137**	0.120**	0.143**	0.067	0.088*	0.133**/S
Extrinsic Motivational Factors						
Easy work	0.038	-0.074	0.017	-0.016	-0.062	-0.026/NS
Pleasing teacher	0.023	-0.034	0.063	0.001	-0.047	-0.001/NS
Dependence on teacher	-0.061	-0.051	-0.048	0.012	0.094*	-0.057/NS
Overall	0.167	0.669	0.013*	0.143	0.918	0.181/NS

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

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

Table 9 presents the test of the relationship between learners' motivational factors and their academic performance. Overall, the subscale challenge is not significantly related ($r=0.068$, $p>0.05$) to their academic performance, which led to failure to reject the null hypothesis.

Table 9 shows that the intrinsic motivation indicator challenge is not significantly related ($r=0.068$, $p>0.05$) to that of the academic performance of the participants. Similarly, Filipino, English, and Araling Panlipunan average 2nd quarter were not related to the intrinsic motivation challenge with Pearson's r correlation moment of 0.038, 0.038, and 0.017, respectively. Furthermore, the three subscales of intrinsic motivation were also examined for their correlation with academic performance. Curiosity had the strongest correlation with academic performance ($r = .176$, $p < .001$), followed by independent mastery ($r = .131$, $p = .002$). Challenge, on the other hand, had a non-significant correlation with academic performance ($r = .061$, $p = .149$).

Discussion

The overall mean in Table 1 suggests that the students are pursuing high in their goals, either personal or in school. In addition, this implies that the students this time have a strong

sense of struggle intrinsically. The new generation realized the importance of finishing their studies. This further implies that students who are motivated intrinsically to challenge themselves in their schooling are those who have a natural drive to learn and explore. These students seek out opportunities for intellectual stimulation and problem-solving and are often highly motivated to succeed. They may be driven by their own curiosity and desire to learn rather than external factors such as grades or rewards. These students may thrive in a classroom environment that offers them opportunities to work independently, pursue their own interests, and engage in hands-on, experiential learning. They may also benefit from opportunities to collaborate with other students who share their passions and interests. Teachers can support these students by offering them personalized learning experiences that match their abilities and interests, and by encouraging them to take intellectual risks and pursue their own lines of inquiry.

Moreover, intrinsically motivated students who challenge themselves in their schooling are likely to experience greater academic success and a greater sense of personal fulfillment. According to a study by Vallerand and Ratelle (2017), intrinsic motivation is associated with a variety of positive outcomes, including increased persistence, better academic performance, and greater well-being. Students who are motivated intrinsically are more likely to engage in deep learning and seek out opportunities for intellectual growth, which can lead to a deeper understanding of academic concepts and greater academic achievement. These students are also less likely to experience burnout or feelings of disengagement, as they are driven by their own passion for learning and personal goals rather than external factors such as grades or rewards. The result does not agree with the study of Rellon (2021), wherein the Senior High School Science, Technology, Engineering and Mathematics students had low overall mean in the intrinsic motivation challenge. Factors, including age, economic status, and others, may have been the reason for this difference.

The indicator **I like to learn as much as I can in school** implies that the students who express a desire to learn as much as they can in school are often intrinsically motivated and driven by a natural curiosity and passion for learning. These students are likely to be highly engaged and interested in their studies, and may seek out opportunities for intellectual growth both inside and outside of the classroom. Research has shown that students who are intrinsically motivated to learn are more likely to experience academic success and a greater sense of personal fulfillment (Adamma, 2018). Teachers can support these students by creating a learning environment that fosters curiosity and engagement, such as by providing opportunities for choice and autonomy, encouraging collaboration and creativity, and offering feedback that supports personal growth and development. By nurturing and supporting students' intrinsic motivation, teachers can help to create lifelong learners who are motivated by a love of learning and a desire to explore the world around them.

On the other hand, the indicator **I like to go on to new work that's at a more difficult level** implies that they express a reluctance to take on more challenging academic material and may face a range of implications that can impact their academic performance, motivation, and overall sense of well-being. For example, students who avoid difficult coursework may miss out on opportunities for intellectual growth and development, which can limit their future career prospects and personal fulfillment. As observed, when students experience a sense of anxiety or stress with challenging material, they further inhibit their ability to succeed academically. Sometimes, they are shy during recitation and hold with their answers. This creates a negative self-talk and lack of confidence.

Students who express reluctance to take on more challenging academic material may be experiencing a lack of motivation or self-efficacy, which can have significant implications for their academic success and personal development. According to Holt et al. (2018), motivation is deeply ingrained in fundamental human needs for autonomy, competence, and connection.

When learners experience a sense of autonomy in their learning, believe in their ability to acquire new skills and knowledge, and feel connected to others in their learning environment, they tend to be more motivated and engaged in their academic pursuits. On the contrary, if students are deprived of one or more of these essential needs, they may display reduced willingness to take on challenging tasks or exhibit a higher likelihood of giving up when confronted with obstacles or difficulties.

Table 2 overall mean imply that participants exhibited a strong desire to explore and discover new information, demonstrating their enthusiasm for gaining knowledge. Nurturing a deep passion for learning among students is essential, as it greatly influences the overall learning process. This result might be due to the strong sense of autonomy, competence, and relatedness in their pursuit of knowledge and exploration of the students. When these basic psychological needs are met, individuals are more intrinsically motivated, leading to a higher level of curiosity and a greater willingness to engage in intellectual exploration and learning (Ryan & Deci, 2017).

This result affirmed the findings of Rellon (2021), wherein the mean level of intrinsic motivation in terms of curiosity of the Science, Technology, Engineering, and Mathematics (STEM) in Misamis Oriental was predominantly characterized as being curious most of the time. The latter indicates a positive and encouraging trend as curiosity is often linked to better learning outcomes and a deeper understanding of the subjects. Similarly, Mahama (2022) obtained a significant, positive, and strong relationship between academic performance in Mathematics and the sub-variable curiosity. Students who are very curious tends to perform very well academically in this case in Mathematics subject. Students are expected to get high scores and high grades in mathematics when their curiosity level is high.

The indicator **I work hard because I really like to learn new things** means that the respondents are willing to put in a lot of effort towards their learning because they enjoy the process of learning and finding out new things indicating that the respondents are highly motivated to learn and explore new things. This outcome could be attributed to the students' robust feelings of self-determination, proficiency, and connection as they actively seek knowledge and delve into learning. When these fundamental psychological requirements are satisfied, people tend to experience heightened intrinsic motivation, fostering increased curiosity and a greater readiness to participate in intellectual exploration and educational pursuits. This finding is consistent with previous research that has shown a positive correlation between intrinsic motivation and curiosity (Pohan et al., 2020). The high mean score for all indicators suggests that the respondents have a strong intrinsic motivation to learn and explore new things, which is a positive indicator for academic success and lifelong learning. The participants would take initiative in their learning, and seek opportunities to expand their knowledge. This can lead to improved academic performance and a deeper understanding of the material. Furthermore, the participants would tend to continue seeking knowledge and exploring new areas of interest throughout their lives. Lifelong learning is essential in today's fast-changing world, as it allows individuals to adapt, grow, and remain relevant in their personal and professional lives.

The indicator **I do extra projects because I can learn about things that interest me** mean that the respondents are willing to go beyond what is required of them, particularly making extra projects because they see them as opportunities to learn more about topics that they find interesting. Moreover, the participants are motivated to take on extra projects voluntarily as a means of exploring topics that pique their curiosity and enhance their knowledge in areas of personal interest.

Overall mean result in table 3 implies the participants are often highly engaged and persistent in their pursuit of knowledge and skills. This can lead to improved academic performance, as they are more likely to put in the effort required to master the material. In

addition, they seek personal growth and are likely to take ownership of their learning process to achieve a high level of proficiency in their areas of interest. Finally, the participants value self-directed learning and personal growth, suggesting a positive and autonomous approach to skill development and knowledge acquisition.

The indicator **I like to try to figure out how to do school assignments on my own** mean result suggest that they may feel more capable and competent in their abilities. This can help them to become more independent and self-sufficient learners. This would result to positive implication like enhanced self-confidence which is successfully figuring out school assignments on their own that helps boost the participant's self-confidence and self-esteem. This finding is consistent with the research that suggests that students who work independently tend to perform better academically (Perry & Johnson, 2018). Students take responsibility for their learning without significant reliance on others, positively correlates with academic success. This correlation might be observed across various educational contexts or disciplines. Students with high level of being independent would eventually gain better scores and will have better performance in all the academic subjects.

The indicator **I like to do my schoolwork without help** result implies that a preference for independent learning can help individuals develop problem-solving skills, self-motivation, and a sense of ownership over their learning process. When individuals work independently, they can explore and discover solutions on their own, which can lead to a deeper understanding of the material. This finding is consistent with the findings of Liu and Wang (2022), that found that those who preferred to work independently on their schoolwork tended to have higher levels of academic achievement. Finally, this inclination toward independent learning aligns with the notion of self-directed learning and can indicate a sense of autonomy and self-reliance in the respondents' approach to their education.

Table 4 overall mean result may have both positive and negative implications. The positive implication is that extrinsic motivation can be a powerful motivator that can help participants accomplish tasks and achieve goals. External rewards can provide sense of satisfaction, and can help individuals stay motivated even when the tasks are not inherent. This result affirms the findings of Rellon (2021) which shows that the participants' (STEM students) intrinsic motivation particularly easy work rating were relatively high. This preference for easy work may indicate a desire for tasks that are perceived as less mentally demanding or require less time and effort to complete. It's important to note that this preference for easy work may have implications for the participants' motivation, engagement, and the level of challenge they seek in their learning experiences.

The mean of the indicator **I like to learn in school** in table 4 further suggests that the students do not prefer challenging tasks or projects that would require the students to do more. Hence, it is expected that their performance in difficult subjects such as Science will be low. This indicator further suggests that external rewards and punishments may not be effective in motivating students to learn. Students who are motivated solely by extrinsic factors such as grades or teacher approval may not be as invested in the learning process as those who are intrinsically motivated. This implies that there is a need to create a learning environment that fosters intrinsic motivation to students. Educators can achieve this by providing engaging and meaningful learning experiences that are relevant to students' interests and lives. They can also promote autonomy by allowing students to make choices and take responsibility for their learning. Additionally, educators can provide students with opportunities to collaborate and work on projects that align with their interests.

The indicator **I don't like to figure out difficult problems** suggests that the respondents who do not like to figure out difficult problems may be less likely to persist in challenging academic tasks. They may give up easily when faced with difficult problems or may avoid challenging tasks altogether. This can lead to a lack of academic progress and lower

achievement. Therefore, educators should strive to create a supportive learning environment that encourages students to embrace challenges and develop a growth mindset. This indicator has important implications for education and can impact student learning outcomes.

The overall mean in table 5 suggest that students who are highly motivated by pleasing their teachers might be more likely to complete assignments on time, participate actively in class discussions, and put in extra effort to meet teacher expectations. This could positively impact their academic performance and achievements.

A study by Lei et al. (2018) found that students who had a strong desire to please their teachers had higher levels of extrinsic motivation than those who did not. Similarly, a study by Zhang et al. (2018) found that students who had a high need for approval from their teachers had higher levels of extrinsic motivation. One possible explanation for this phenomenon is that students who want to please their teachers may be more motivated by the external rewards of approval and praise from their teachers. In a study by Kim et al. (2019), found that students who had a strong desire to please their teachers were more likely to be satisfied with their courses and to have higher levels of academic achievement. It is important to note that a strong desire to please one's teacher may not always lead to optimal learning outcomes. Students who are solely motivated by external rewards may not develop a genuine interest in the subject matter and may be less likely to engage in deep learning.

The indicator **I do my schoolwork because teacher tells me had the highest mean rating**. This behavior can be attributed to external regulation, which is one of the types of extrinsic motivation in self-determination theory. External regulation refers to behavior that is controlled by external factors such as rewards or punishments. In the context of education, external regulation can be seen as students engaging in academic tasks to avoid punishment or to obtain rewards such as grades or approval from their teacher (Vansteenkiste et al., 2019).

On the other hand, the indicator **I want the teacher to notice me had the lowest mean rating**. This behavior can be attributed to introjected regulation, which is another type of extrinsic motivation in self-determination theory. Introjected regulation refers to behavior that is driven by internal pressure or guilt to meet the expectations of others. In the context of education, introjected regulation can be seen as students engaging in academic tasks to avoid feelings of guilt or shame for not meeting the expectations of their teacher (Ryan & Deci, 2017).

Research has shown that external and introjected regulation can have negative effects on academic performance and learning outcomes. For instance, students who are motivated by external regulation tend to have lower levels of engagement, creativity, and critical thinking skills compared to students who are motivated by intrinsic motivation. Moreover, students who are motivated by introjected regulation tend to have lower levels of well-being and higher levels of anxiety and stress compared to students who are motivated by intrinsic motivation.

Hence, it is important for educators to promote intrinsic motivation by creating a supportive and engaging learning environment that fosters autonomy, competence, and relatedness. Autonomy refers to the sense of choice and control over one's actions, competence refers to the sense of effectiveness and mastery in one's activities, and relatedness refers to the sense of connection and belongingness with others (Grolnick & Ryan, 2017). When students feel autonomous, competent, and related to their learning environment, they are more likely to engage in academic tasks for their own intrinsic motivation, rather than for external or introjected reasons.

The overall mean for table 6 suggests that the respondents look to their teachers as significant sources of support and rely on them to provide the necessary motivation and direction for their educational endeavors. This reliance on teachers for extrinsic motivation and guidance may influence the participants' learning experiences and their overall engagement with the learning process.

Students who are highly dependent on their teachers may be less likely to take initiative, set goals, and monitor their own progress, which can hinder their long-term learning and achievement (Li & Linnenbrink-Garcia, 2018). The findings elsewhere have indicated that students with a high mean rating indicating dependence on their teachers tend to have a negative correlation with their performance in Mathematics and English (Amponsah et al., 2019). Students who lack independent learning skills may struggle in various subjects, leading to poor academic performance overall. Further, it suggests that the inability to work independently can hinder their ability to succeed across different subject areas, ultimately affecting their academic achievements in school. This result affirms the findings of Rellon (2021) which had a high mean rating for teacher's support. Similar characteristics among students have been observed in this extrinsic motivation subvariable.

The indicator **When I make a mistake I like to ask the teacher how to get the right answer** mean implies that students who are willing to ask for help and seek feedback are more likely to learn from their mistakes and make progress in their understanding of the material. Also, respondents who feel comfortable asking their teacher for help are more likely to have a positive relationship with their teacher and feel supported in their learning. By seeking guidance and support, students can become more confident in their ability to learn and tackle challenging tasks (Coristine et al., 2022).

On the other hand, the indicator **I like to have the teacher help me with my schoolwork** implies that students who are open to receiving help from their teacher but do not express a strong preference for it may be more flexible in their approach to learning and problem-solving. In addition, students who are comfortable seeking help from their teacher but also willing to try to solve problems on their own may have a balanced approach to learning that can help them make progress and overcome challenges. It is essential for educators to encourage students to develop their problem-solving skills and become more self-directed in their learning while also providing support and guidance when needed. By fostering a culture of learning and growth, students can develop the skills and mindset necessary for success in school and beyond (Robinson & Persky, 2020).

Table 7 overall mean supports the study of Vansteenkiste et al. (2019), wherein they found that intrinsic motivation is associated with better performance, persistence, and creativity in tasks. This means that the participants are motivated to engage in a particular activity or behavior because they find it inherently interesting, enjoyable, or satisfying. Intrinsic motivation is driven by internal factors, such as personal interests, values, and beliefs, rather than external rewards or consequences. This implies that students are highly engaged in various school activities, which can lead to higher levels of productivity, creativity, and satisfaction. This may be attributed to the learners' desire to engage in a task primarily for the intrinsic pleasure derived from the act of performing the task. Such motivation can often be a driving force behind their actions (Ryan & Deci, 2020).

Table 7 result affirms the work of Rellon (2021), wherein the respondents had a high rating about the sub-variable curiosity. In addition, the participants are likely to actively seek out opportunities to acquire knowledge and engage in various activities in school with enthusiasm. Furthermore, students who had high level of curiosity would most likely result to high performance in various subjects. The result may be linked to the students' strong sense of self-directedness, competence, and connection as they actively pursue knowledge and immerse themselves in the learning process. When these essential psychological needs are fulfilled, individuals typically experience heightened internal motivation, which encourages greater curiosity and a heightened willingness to engage in intellectual exploration and educational endeavors (Ryan & Deci, 2017).

On the other hand, intrinsic motivation mean result suggests that the respondents were also motivated by external rewards, such as pleasing the teacher or completing easy work. This

finding is consistent with previous research that suggests that students' motivation can be influenced by external factors, such as rewards and punishments (Cameron & Pierce, 2019).

The high mean scores in both the intrinsic and extrinsic motivation subscales suggest that the participants in this study were motivated by a combination of internal and external factors. However, the participants' dependence on the teacher suggests that some may have lacked the ability to self-motivate and learn independently. These findings have important implications for educators, as they highlight the importance of fostering both intrinsic and extrinsic motivation while also encouraging students' autonomy and independence in learning.

This outcome could potentially stem from the negative aspects of extrinsic motivators, which have the unintended consequence of diverting students away from cultivating their autonomy as independent learners. When external rewards or pressures are overly emphasized in the learning process, students may become less focused on self-driven exploration and personal growth. This shift away from intrinsic motivation can hinder their ability to develop a genuine passion for learning and a sense of ownership over their educational journey. Consequently, it is important to strike a balance between extrinsic and intrinsic motivators to foster holistic and sustainable learning experiences (Adamma et al., 2018).

The overall academic performance implies that the learners are trying their best to perform highly, not only in Araling Panlipunan but also in other learning areas. As observed, learners are well intrinsically motivated by their teachers in such a way that they study hard to get a better mark. In general, Table 8 suggests that the participants in this study performed well academically, with the majority receiving very satisfactory or outstanding grades. These findings are consistent with previous research on the relationship between motivation and academic performance in the Philippines. However, it is important to consider other factors that may influence academic performance and to use a range of measures to assess student learning.

The Araling Panlipunan accomplishment signifies a deep understanding of the subject matter, reflecting the student's dedication and engagement with the curriculum. It showcases their ability to navigate and comprehend the complexities of social studies. This findings might be due to the good study habits, interest towards learning the subject, and the skills of the teachers teaching the subject (Sangalang & Badillo, 2017). The students take responsibility for their learning without significant reliance on others, positively correlates with academic success. This correlation might be observed across various educational contexts or disciplines.

Conversely, English implies that the participants who struggle with English proficiency may face challenges in accessing information and resources that are only available in English. English proficiency is often a requirement for admission to higher education institutions, both in the Philippines and abroad. Students who struggle with English may have limited opportunities for further education and career advancement. These results somehow support the work elsewhere that the quality of English language instruction in the Philippines was generally poor, with many teachers lacking the necessary training and resources to effectively teach English (World Bank, 2018).

However, it is important to note that grades are just one measure of academic performance and do not necessarily reflect other important aspects of learning, such as critical thinking, problem-solving, and creativity. Additionally, there may be other factors that influence academic performance, such as socioeconomic status, cultural background, and access to educational resources. Despite of the pandemic, most of the participants had performed very well in all the subject areas. This result does not support the study of Peteros et al. (2020), wherein only few participants got a very high rating. This contradiction might be due to the period when the study was conducted. A report elsewhere showed that 94% of Filipinos highly favored the implementation of face-to-face classes (Bordey, 2022). The current

research was conducted after the onset of the pandemic. Hence, face-to-face classes were allowed. Unlike the previous study, the learning modality is either modular or blended learning.

Table 9 results suggest that there is no significant correlation between intrinsic motivation and the students' academic performance. On the other hand, the learners intrinsic motivational factors curiosity and independent mastery were significantly related to their academic performance having pearson r correlation coefficient of 0.178 ($p < 0.01$) and 0.133 ($p < 0.05$) respectively. This implies that the level of curiosity and independent mastery are factors for learners to have good academic performance. Specifically, the level of curiosity is related to all the 5 five subjects involved namely Filipino, English, Mathematics, Science and Araling Panlipunan. For the subscale independent mastery, only Science subject do not show significant relationship while the rest showed are significantly related. However, the strength of relationship is still low. This finding is consistent with previous research that has found a positive association between intrinsic motivation and academic achievement (Yarin et al., 2022). The significant correlation suggests that students who are more intrinsically motivated tend to perform better academically.

The strong correlation between curiosity and academic performance suggests that students who are more curious about the subject matter tend to perform better academically. This finding is consistent with previous research that has found a positive relationship between curiosity and academic achievement (Litman & Jimerson, 2019). Curiosity is associated with a willingness to explore and learn, which can enhance students' engagement and motivation to learn.

Similarly, the correlation between independent mastery and academic performance suggests that students who are motivated to learn and master the material tend to perform better academically. This finding is consistent with previous research that has found a positive relationship between mastery-oriented goals and academic achievement (Elliot & Dweck, 2019).

In contrast, the non-significant correlation between challenge and academic performance suggests that students' motivation to take on challenging tasks may not necessarily be associated with their academic performance. This finding is somewhat surprising, as previous research has found a positive relationship between challenge and academic achievement (Elliot & Dweck, 2019). However, it is possible that the measure used in this study did not capture the full range of challenge-related motivation that could be associated with academic performance.

Table 9 also presents the test of relationship between extrinsic motivation particularly easy work, curiosity, and independent mastery, with the overall academic performance. Results revealed no significant correlation between the subscales of extrinsic motivation and academic performance which suggests that students' motivation to engage in the task for external rewards or punishment may not necessarily be associated with their academic performance. This finding is consistent with some previous research that has found mixed results on the relationship between extrinsic motivation and academic achievement (Vansteenkiste et al., 2019). The non-significant correlations between the three subscales of extrinsic motivation and academic performance suggest that students' dependence on the teacher, preference for easy work, or desire to please the teacher may not necessarily be associated with their academic performance. However, it is possible that other factors, such as students' effort, ability, or learning strategies, may mediate the relationship between extrinsic motivation and academic performance. These findings have important implications for educators, as they suggest that external rewards or punishments may not be effective in enhancing students' academic achievement. Instead, educators should focus on fostering intrinsic motivation and engagement in the task to promote students' academic success.

Conclusion

Based on the findings, the following conclusions are made:

The respondents in this study are generally intrinsically motivated and they tend to be driven by internal factors or personal interests when engaging in the activities or behaviors being studied. However, their extrinsic motivation is categorically similar to that of intrinsic motivation. In addition, the students are performing well in the subject Araling Panlipunan. They have a comprehensive understanding of the social sciences and are able to apply their knowledge to various aspects of their society and history. The intrinsic motivation on curiosity and independent mastery are related to learners' academic performance in each subject, namely Filipino, English, Mathematics, Science, and Araling Panlipunan.

Recommendations

Considering the above findings, the following recommendations are hereby forwarded:

Teachers should motivate the learners all the time using all possible ways, particularly on extrinsic. This unwavering commitment to motivation is essential for fostering a dynamic and enriching learning environment. In parallel, school administrators and leaders should ensure a supportive infrastructure that empowers educators with the resources and guidance necessary to promote motivation effectively. In addition, teachers should put more effort in teaching English by encouraging students to focus on their improvement, not just on their grades on any test or assignment. Finally, motivational factors should be conducted in other places considering other variables to validate results.

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