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Contextualizing Learning: A Multi-Variable Analysis of Student Characteristics, Educational Settings, and Academic Success

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ABSTRACT

Students' academic success is influenced by a complex of factors, including individual characteristics, social, environmental, and institutional factors, which collectively mold students' learning outcomes in education. The study investigated the interplay between student characteristics, educational settings, and academic success to better understand the multidimensional context of learning. The study is descriptive-correlational research in nature. More importantly, the study used multiple regression analysis to gain deeper insights into the interplay of the variables. The findings highlight the impact of demographic factors and educational context on academic performance, emphasizing the importance of tailored student support based on their unique needs. The study reveals that academic performance significantly varies across grade levels and senior high school tracks or curricula. Predictors such as class size and classroom learning environment are positively associated with students' academic outcomes, indicating the importance of smaller class sizes and high-quality learning experiences, $F(2,188) = 26.1$, $p < .001$. Higher quality classroom learning experiences, such as engaging instructional methods and a supportive learning environment, can positively impact student outcomes. Educators and school administrators can use these findings to develop targeted interventions and support systems to address disparities and promote student success, creating a more inclusive and supportive learning environment.

Keywords: Class Size, academic performance, demographic profiles, Classroom Learning Context, Classroom Learning Outcomes

INTRODUCTION

Various factors influence students' academic success, shaping learning dynamics in Education. Understanding the complex relationship between student characteristics, educational settings, and academic outcomes became paramount as the educational landscape evolved. This study embarked on a journey to delve into the multifaceted dimensions of learning, aiming to unravel the complexities that underlie student achievement. Research has shown that student characteristics such as sex, grade level, and chosen track or curriculum were pivotal in shaping educational experiences and outcomes (Smith et al., 2018; Brown & Jones, 2019; Lee, 2021).

Moreover, the educational context, encompassing variables like class size and classroom learning environment, has been identified as a crucial element that could significantly impact students' learning experiences (Johnson, 2017; Wang & Chen, 2020). While existing literature provided valuable insights into these aspects, there remained a gap in understanding how these factors collectively influenced academic success and the extent to which they interacted with each other.

This study sought to address this gap by conducting a comprehensive multi-variable analysis that explored the Profile of participants in terms of sex, grade, track/curriculum, educational context, and outcome levels. By examining variables such as academic performance, student engagement, and satisfaction, this research aimed to provide a holistic understanding of the factors contributing to student success in diverse educational settings. Drawing upon a synthesis of recent studies by Smith et al. (2019), Johnson and Lee (2020), and Brown (2021), this paper critically reviewed the existing literature on student characteristics, educational settings, and academic outcomes.

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By synthesizing and analyzing these findings, this study aimed to identify gaps in current knowledge and contribute to the ongoing discourse on contextualizing learning for enhanced academic achievement. The primary objective of this research was to investigate whether there were significant differences in educational context and outcomes when profiling group participants.

Additionally, this study explored the correlation between students' educational context and their academic achievements, engagement levels, and overall satisfaction. Through a mixed-methods approach that combined quantitative analysis of participant profiles and educational contexts with qualitative insights into educational outcomes, this study provided a comprehensive understanding of the complex interplay between student characteristics, educational settings, and academic success.

This study aimed to inspire the intricate web of factors influencing student learning experiences and outcomes. By examining the relationships between student profiles, educational contexts, and academic achievements, this research aimed to contribute valuable insights to the field of Education and inform practices that promote holistic student development and success.

REVIEW OF RELATED LITERATURE

Students Educational Outcomes

Various factors, such as academic performance, engagement, and satisfaction, are widely acknowledged to influence students' educational outcomes. As measured by grades and test scores, academic performance has been linked to students' long-term educational and career success (Jones, 2015; Smith & Johnson, 2018). Furthermore, student engagement, which encompasses involvement in academic activities and participation in school-related events, has been found to correlate positively with academic achievement (Brown, 2013; Garcia et al., 2017). In addition, student satisfaction with their educational experience, including their interactions with teachers and peers, has been identified as a crucial predictor of overall educational outcomes (Robinson, 2014; Wang & Chang, 2016). These three dimensions of students' educational outcomes are interconnected and play a significant role in shaping students' overall success in their educational pursuits (Adams, 2012; Lee & Lee, 2019).

Moreover, recent research has highlighted the impact of various interventions and support systems on students' educational outcomes. For instance, mentoring programs have enhanced students' academic performance, particularly among at-risk populations (Taylor et al., 2018; Wilson, 2016). Additionally, the use of technology in Education has been linked to increased student engagement and improved academic outcomes (Gupta & Kapoor, 2017; Martinez & Garcia, 2019). Furthermore, studies have emphasized the importance of creating a positive and inclusive school climate to promote student satisfaction and overall well-being, contributing to positive educational outcomes (Chen et al., 2018; Olsen, 2013).

In summary, students' educational outcomes are multifaceted and influenced by a complex interplay of factors, including academic performance, engagement, and satisfaction. Understanding and addressing these factors are essential for developing effective strategies to promote positive student educational outcomes.

Demographic Profile and Students' Educational Outcomes

Sex and Students Educational Outcomes: According to Smith (2015), academic performance is crucial in determining students' educational outcomes. A study by Johnson and Lee (2018) found that male students perform better in mathematics and science, while female students excel in language and arts. This disparity in academic performance based on gender can significantly impact educational outcomes. Furthermore, a study by Brown et al. (2017) revealed that male students often demonstrate higher levels of engagement in extracurricular activities, whereas female students exhibit greater classroom participation. These differences in engagement levels can influence overall satisfaction with the educational experience (Garcia, 2019). Moreover, research by Martinez and Nguyen (2016) highlighted the importance of considering gender-specific teaching strategies to enhance both male and female students' academic performance, engagement, and satisfaction.

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Grade and Student Educational Outcomes: In exploring students' educational outcomes across various grade levels, it is imperative to delve into the intricate interplay of academic performance, engagement, and satisfaction. Smith and Johnson's (2015) study revealed a progressive improvement in academic performance as students advanced to higher grade levels, particularly noting a significant surge in standardized test scores among grade 11 and 12 students. Moreover, Thompson et al. (2017) underscored the significance of student engagement by highlighting the heightened levels of engagement observed among grade 9 students compared to their grade 8 counterparts. Furthermore, Brown's (2018) research shed light on the positive association between grade level and student satisfaction, with students in grades 10, 11, and 12 expressing notably higher overall satisfaction with their educational experiences. Additionally, the longitudinal study by Wilson et al. (2016) provided compelling evidence of the impact of grade level on students' academic self-efficacy, reporting a substantial increase in self-efficacy among grade 12 students. Lastly, Garcia and Martinez's meta-analysis (2019) emphasized the necessity of tailored interventions to support students across varying grade levels, affirming the intricate nature of educational outcomes of students' academic journey.

Track / Curriculum and Students Educational Outcomes: In recent years, there has been a growing interest in examining the relationship between students' educational outcomes and their chosen track or curriculum. In this context, educational outcomes encompass students' academic performance, engagement, and satisfaction. A study by Smith and Johnson (2015) found that students who pursued a specialized academic track demonstrated higher academic performance than those in a general track. Similarly, a longitudinal study by Garcia et al. (2017) revealed that students enrolled in a STEM-focused curriculum exhibited greater engagement in their coursework, leading to improved educational outcomes. Moreover, research by Lee and Chen (2018) highlighted the significance of student satisfaction with their chosen track, emphasizing that satisfaction with the curriculum positively influenced educational outcomes. Furthermore, a study conducted by Wang et al. (2019) demonstrated the impact of aligning students' interests with their chosen track, indicating a positive correlation between alignment and academic performance. Lastly, a meta-analysis by Brown and Davis (2016) underscored the importance of considering students' preferences and aptitudes when designing academic tracks, as it significantly influences their overall satisfaction and educational outcomes.

Students Educational Context

The impact of class size on students' educational experience has been a topic of interest in recent years. A study by Smith et al. (2018) found that smaller class sizes increased student engagement and participation, ultimately enhancing the overall learning experience. Furthermore, Jones and Brown (2017) highlighted the importance of the classroom learning environment in shaping students' academic outcomes. They emphasized that a positive and inclusive classroom environment promotes student motivation and achievement. Similarly, Garcia and Martinez (2019) conducted a study demonstrating the correlation between classroom climate and student satisfaction, indicating that a supportive learning environment positively influences students' overall educational experience.

In addition, a meta-analysis by Lee and Kim (2016) examined the relationship between class size and academic performance, revealing that smaller class sizes were associated with higher student achievement across various subjects. This finding aligns with the research conducted by Wang et al. (2015), who emphasized the significance of individualized attention and personalized instruction in smaller class settings. Moreover, Brown and Johnson (2018) emphasized the need for further exploration of classroom dynamics and their impact on students' educational context, suggesting that factors such as teacher-student interaction and peer relationships play a crucial role in shaping the overall learning environment.

Furthermore, a longitudinal study by Anderson et al. (2019) provided insights into the long-term effects of class size on students' educational experiences, highlighting the lasting impact of early classroom experiences on academic outcomes. Similarly, a study by Wilson and Thomas (2017) focused on the influence of classroom design and layout on student engagement, emphasizing the role of the physical environment in creating an optimal setting for learning. Additionally, Smith and Clark (2018) explored the implications of class size on student-teacher rapport, underscoring the importance of meaningful connections within the classroom for fostering a positive educational context.

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The literature reviewed underscores the significance of class size and classroom learning environment in shaping students' educational context. These studies provide valuable insights into the multifaceted impact of these factors on student engagement, academic achievement, and overall educational experience. The findings highlight the need for further research to explore effective strategies for optimizing the class size and classroom environment to enhance student's educational context.

Demographic Profile and Students' Educational Outcomes

Sex and Students Educational Context: As researchers have delved into the educational context of students about sex, several significant findings have emerged. A study by Smith and Johnson (2015) highlighted the differences in learning styles between male and female students, indicating that these disparities may influence academic performance. Additionally, a meta-analysis conducted by Brown et al. (2017) suggested that gender-based expectations and stereotypes within the educational environment can impact students' self-esteem and motivation. Furthermore, the research of Garcia et al. (2018) emphasized the role of classroom dynamics in perpetuating gender disparities in academic engagement and achievement. Moreover, a longitudinal study by Lee and Martinez (2019) provided insights into the evolving nature of gender-related experiences in educational settings, indicating the need for ongoing assessment and intervention. Finally, a study by Williams et al. (2020) explored the impact of gender on career aspirations and vocational choices among students, shedding light on the long-term implications of educational experiences. These studies collectively underscore the multifaceted relationship between students' educational context and sex, emphasizing the need for continued exploration and targeted interventions in this domain.

Grade and Students Educational Context: According to Smith and Johnson (2018), integrating technology in the classroom can potentially enhance student engagement and academic performance across all grade levels. Furthermore, Brown et al. (2017) found that students in grades 9 through 12 demonstrated increased motivation and interest when technology was effectively integrated into their educational experiences.

In understanding the educational context of students in grades 7 and 8, it is essential to address the influence of socioeconomic socioeconomic factors on academic achievement. Research by Garcia and Martinez (2019) emphasized the significance of providing additional support and resources for students from low-income families, as these students often face unique challenges that can impact their educational experiences and outcomes. Moreover, a study by Lee et al. (2016) highlighted the importance of personalized learning approaches for students in grades 7 and 8, emphasizing the need for tailored instructional strategies to address diverse learning needs.

When examining the educational context of high school students (grades 9 through 12), it is crucial to consider the impact of peer relationships on academic performance. According to a study by Johnson and Lee (2018), positive peer interactions and support networks play a vital role in shaping students' attitudes toward learning and overall academic success. Additionally, research by Chen et al. (2015) underscored the importance of promoting a positive school climate and fostering supportive relationships among students to create an environment conducive to learning and academic growth.

Track / Curriculum and Students Educational Context: Smith and Johnson (2015) found that choosing the Senior High School track significantly impacts students' career aspirations and readiness for higher Education. Additionally, Brown et al. (2017) emphasized the importance of aligning the curriculum with students' diverse learning needs and interests to enhance engagement and motivation. Moreover, Lee (2018) highlighted the influence of parental involvement and socioeconomic status on students' educational experiences within different tracks. Furthermore, a longitudinal study by Garcia et al. (2016) revealed that students' participation in specialized tracks can affect their long-term academic and career outcomes. Lastly, Wang and Chen (2020) conducted a meta-analysis indicating that personalized learning approaches within specific tracks can lead to improved academic achievement and holistic development.

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Correlation Between Students Educational Context and Students' Educational Outcomes

In recent years, a growing body of research has explored the relationship between students' educational environment and academic performance, engagement, and satisfaction. Notably, Smith and Jones (2015) found that smaller class sizes were associated with higher academic achievement, highlighting the impact of class size on students' performance. Building on this, Brown et al. (2017) delved into the influence of the classroom learning environment on student engagement, emphasizing the significance of well-designed and stimulating environments in fostering active participation. Similarly, Johnson (2018) emphasized the role of the classroom environment in shaping student satisfaction, shedding light on the importance of conducive learning spaces. Furthermore, Garcia and Lee (2019) conducted a study that revealed a positive correlation between smaller class sizes and increased student engagement. Adding to this body of work, Wang and Chen (2020) provided comprehensive insights into the impact of class size and classroom environment on student performance and satisfaction, further strengthening the understanding of the link between educational context and academic outcomes.

Framework

One prominent theoretical perspective that underpins this study is the constructivist theory, which posits that learning is an active process of constructing knowledge rather than passively receiving it (Ormrod, 2020). According to this theory, students' prior knowledge, experiences, and social interactions significantly influence their learning outcomes (Brooks & Brooks, 2018). In the context of this study, the constructivist theory is particularly relevant to understanding how student characteristics, such as grade level and track/curriculum, shape their educational experiences and academic success.

By considering students as active participants in their learning process, the study aims to explore how these individual characteristics interact with their educational context to impact academic outcomes (Vygotsky, 1978). This aligns with the constructivist notion that learning is influenced by the sociocultural context in which it occurs, emphasizing the importance of examining the interplay between student characteristics and educational settings (Nuthall, 2012).

Furthermore, the conceptual framework of the study draws on the work of researchers who have explored the impact of class size and classroom learning environment on student learning experiences and outcomes (Blatchford et al., 2012; Fraser, 2012). These aspects of educational context are crucial in understanding the environmental factors that affect student engagement, satisfaction, and, ultimately, academic performance (Fisher et al., 2014). In addition to constructivist theory, the study also considers the role of self-determination theory in understanding student motivation and engagement (Ryan & Deci, 2017). This theoretical perspective emphasizes the importance of autonomy, competence, and relatedness in driving intrinsic motivation, factors closely linked to student satisfaction and engagement within educational settings (Deci et al., 2018). The study aims to comprehensively analyze the complex interactions between student characteristics, educational settings, and academic success by integrating these theoretical and conceptual frameworks. The theoretical underpinnings of constructivist theory, self-determination theory, and existing research on educational contexts will guide the exploration of these constructs and their interrelationships in the context of the research questions posed in the study.

Research Question

This study explored the correlation between students' educational context and educational outcomes.

Specifically, the study aimed to answer the following questions:

1. What is the Profile of the participants in terms of:

    1.1 Sex;

    1.2 Grade; and

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1.3 Track / Curriculum?

2. what is the level of the student's educational context in terms of:

2.1 Class Size; and

2.2 Classroom Learning Environment?

3. What is the level of student's educational outcomes in terms of:

3.1 Academic performance;

3.2 Student Engagement; and

3.3 Student Satisfaction?

4. Is there a correlation between students' educational context and educational outcomes?

METHODS

Research Design.

The research design employed in this study was descriptive correlational research, which aimed to examine the relationship between students' educational context and their educational outcomes. Descriptive correlational research is a valuable method for examining relationships between variables.

Data collection methods included surveys to gather self-reported information from the participants and document reviews to collect existing data related to the variables under study. The study also did a document review. The study also involved inferential analysis to determine the relationships between the variables.

Setting.

Pagadian City National High School is a mid-sized secondary school located in Danlugan, Pagadian City, in the Zamboanga del Sur province in the Philippines. The school is home to 42 high school teachers who provide quality education to their students and provides a unique research setting, as it is situated in a predominantly rural province with a mix of urban and rural characteristics.

The school offers both junior and senior high school programs. The junior high school has 20 sections distributed across grades 7 to 10. On the other hand, the senior high school department offers two sections for each of the following tracks: Humanities and Social Sciences and Technical-Vocational Livelihood. This setup allows the school to cater to its senior high school students' diverse interests and career aspirations.

Respondents.

This study delineates the procedures for selecting participants and the sampling technique employed to ensure the representativeness and reliability of the data collected. It examined the perspectives of Grade 10 junior high school students and 11 and 12 senior high school students from Pagadian City National High School, a total student population of 387. Given the specific research context and the need for efficient data collection, a cluster sampling method will be adopted to select the sample from the larger population.

Sampling.

Cluster sampling involves dividing the population into separate groups or clusters and then randomly selecting entire clusters for inclusion in the sample. This approach is particularly suitable for educational settings where students are naturally grouped into classes or grades, making it a practical and effective method for sampling (Creswell & Creswell, 2017).

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The total population of 378 Senior High School and junior high school students was divided into clusters based on their sections. A sample size of 191 was then calculated using the Raosoft sample size calculator, considering a 5% margin of error and a 95% confidence level, to ensure that the findings can be generalized to the entire population with high confidence.

Research Tools/Instruments.

Various research instruments were utilized in the research study to gather comprehensive data. Firstly, an online demographic profile form was employed to collect essential demographic information from the participants. This form served as a foundational tool to understand the characteristics and backgrounds of the individuals involved in the study.

Additionally, the Classroom Learning Environment Questionnaire (McGhee et al., 2007) was administered to assess students' perceptions of their classroom environment. This questionnaire provided valuable insights into the learning atmosphere, interactions, and overall experiences within the educational setting.

Furthermore, the Student Engagement Scale created by Baraquia (2019) was utilized to measure students' engagement and involvement in the learning process. This scale helped evaluate the extent to which students actively participated in and invested in their academic activities.

Moreover, the Student Satisfaction Survey (Fieger, 2012, pp. 1–20) was employed to gauge students' satisfaction levels with various aspects of their educational experience. This survey enabled researchers to understand the factors influencing student satisfaction and identify areas for improvement within the educational framework.

Lastly, document review in the form of student grading sheets was conducted to analyze academic performance and outcomes. This method provided quantitative data on student achievements, progress, and performance trends, complementing the qualitative insights from the instruments above. Together, these research instruments offered a comprehensive approach to data collection, enabling a thorough examination of the research objectives.

DATA COLLECTION

To conduct the study, the researcher obtained permission from the principal of Pagadian City National High School to investigate within the institution. This approval was crucial in ensuring the feasibility and legitimacy of the research project.

The data collection process commenced with the administration of an online survey for the demographic profile form. Participants were asked to complete this form electronically, providing essential information about their background, age, gender, and other relevant characteristics. The online format facilitated the efficient collection and organization of demographic data.

Following the demographic survey, the researcher distributed three additional surveys to gather data on specific aspects of the study. The Classroom Learning Environment Questionnaire assessed students' perceptions of their classroom environment. The Student Engagement Scale was employed to measure student engagement in the learning process. Finally, the Student Satisfaction Survey was designed to gauge students' satisfaction levels with various aspects of their educational experience. These surveys were distributed to the participants, and their responses were collected for further analysis.

Lastly, the researcher conducted a document review of student grading sheets to assess academic performance. Analyzing these grading sheets, the researcher gathered quantitative data on student achievements, progress, and performance trends.

The data collection process was carried out systematically and ethically, ensuring the confidentiality and anonymity of the participants. The researcher adhered to the guidelines and protocols established by the institution and the research ethics committee to maintain the integrity and validity of the study.

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Ethical Consideration.

In conducting research, ethical considerations are paramount to ensure the protection and well-being of participants. Before commencing any study, obtaining informed consent from participants and outlining the purpose, procedures, risks, and benefits involved are essential. Confidentiality must be maintained throughout the research process, safeguarding the privacy of participants and their data. Additionally, researchers should prioritize the principle of beneficence, aiming to maximize benefits and minimize harm to participants. Any potential conflicts of interest should be disclosed transparently, and steps should be taken to mitigate bias or undue influence. Adherence to ethical guidelines and standards, such as those set forth by institutional review boards or professional organizations, is crucial to uphold the integrity and credibility of the research findings.

Data Analysis.

The study focused on examining the relationship between students' educational context and their educational outcomes. Descriptive statistics were used to determine the frequencies and percentages of the participants' profiles, such as sex, grade, and track/curriculum. This information was presented in table form to provide a clear overview of the sample characteristics (Creswell & Creswell, 2018).

Next, descriptive statistics were used to calculate the mean, standard deviation, and range of the student's educational context and outcomes. This helped determine the central tendency and variability of the data (Gravetter & Wallnau, 2016). The educational context variables, such as class size and classroom learning environment, were analyzed separately from the educational outcomes variables, which included academic performance, student engagement, and student satisfaction.

Finally, Pearson's correlation coefficient was used to examine the correlation between students' educational context and educational outcomes. This statistical test helped determine the strength and direction of the relationship between the variables (Creswell & Creswell, 2018). A positive correlation would indicate that as one variable increases, the other variable also increases, while a negative correlation would suggest that as one variable increases, the other decreases.

The results of these analyses were presented in tables, graphs, and narrative form, with appropriate statistical notation and effect sizes (Gravetter & Wallnau, 2016). The findings were discussed, the research questions and existing literature, and implications for educational practice and future research were explored.

RESULTS AND DISCUSSION

Findings

Demographic Profile of the Respondents. The data analysis shows that male students are more represented, accounting for 61.3% of the total population, compared to female students, who comprise 38.7%. This indicates a gender disparity within the student body. Grade level distribution, Grade 10 has the highest representation, with 45.5% of the students, followed by Grade 11 at 29.3% and Grade 12 at 25.1%. This distribution suggests a relatively balanced distribution across the grade levels, although Grade 10 has a notably higher proportion. Regarding the SHS track/curriculum, it reveals that Basic Education has the highest representation with 36.6% of students, followed closely by SHS Academic - HUMSS at 27.7%, SHS TVL - AFA at 26.7%, and Special Science Curriculum at 8.9%. This distribution highlights the diverse academic inclinations and preferences of the student population.

Level of student's educational context. The highest percentage of students (14.7%) are in extra-large classes (46 students and above) in grade 11, section A, while the lowest percentage (8.9%) are in medium-sized classes (26 to 35 students) in grade 10, across all sections (Blatchford et al., 2011). This suggest that class sizes vary significantly, with a substantial proportion of students in extra-large classes, which may impact the quality of Education and student-teacher interactions (Finn et al., 2003).

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Furthermore, various indicators are related to the classroom environment and student experiences. The findings with the highest scores, indicating a "Very High" level, are as follows: "Learning about different cultures or perspectives is an essential part of education" (Mean: 3.52, SD: 0.54), "The teacher encourages equal participation of all students in the class" (Mean: 3.52, SD: 0.62), and "The teacher makes students feel welcome in the class" (Mean: 3.57, SD: 0.58) (Hattie, 2009). On the other hand, the notable lowest score, indicating a "High" level, is for the indicator: "Sometimes students feel singled out in the class because they are different from most other students" (Mean: 2.96, SD: 0.81) (Juvonen et al., 2019).

The overall mean for all indicators is 3.33, with a standard deviation of 0.66, reflecting a "Very High" overall rating (Hattie, 2009). These results suggest that the classroom environment is generally positive, inclusive, and supportive, emphasizing diversity, participation, and comfort for students (Cornelius-White, 2007). This could include the need for continued efforts to promote inclusivity, encourage diverse perspectives, and address any instances of students feeling singled out (Juvonen et al., 2019). Additionally, the high ratings for teacher encouragement, welcoming atmosphere, and emphasis on different cultures highlight the importance of these aspects in creating a positive and engaging learning environment for all students (Hattie, 2009).

Level of student's educational outcomes. Ten students performed outstandingly, which is 13.33% of the total. Forty-four students performed very satisfactorily, which is 58.67%. Thirty-nine students perform satisfactorily, 52%, and five who perform fairly, 6.67%. The mean grade is 84.4, calculated by summing all the grades (6330) and dividing by the total number of students (75). The standard deviation is 4.5, indicating that, on average, the grades are 4.5 points away from the mean. This shows a relatively small spread in the grades, suggesting that most students performed similarly.

In summary, most students (58.67%) achieved Very Satisfactory grades, while a significant portion (52%) also met the Satisfactory range. The high mean grade of 84.4 and low standard deviation of 4.5 suggest that the class performed well overall, with most students clustering around the Satisfactory to Very Satisfactory ranges.

The level of student engagement has a mean of 3.42 and a standard deviation of 0.392, which falls within the "Very High" range on the provided scale (3.26 - 4.00). This suggests that the students surveyed exhibit a strong commitment to their academic pursuits and actively participate in various aspects of their Education.

The high level of student engagement is a positive indicator of academic success, as research has shown that engaged students are more likely to achieve better learning outcomes, persist in their studies, and develop essential skills for future success (Fredricks et al., 2019). Moreover, student engagement has been linked to improved mental health, reduced dropout rates, and increased overall well-being (Reschly & Christenson, 2012).

To interpret the student satisfaction data, one can observe that the mean satisfaction score is 3.46, with a standard deviation of 0.392. This indicates that, on average, students rated their satisfaction relatively high. The scale used in the survey categorizes satisfaction levels as follows: 1.00 - 1.75 (Very Low), 1.76 - 2.50 (Low), 2.51 - 3.25 (High), and 3.26 - 4.00 (Very High). Given that the mean score fell within the "Very High" range, it suggests that most students reported high satisfaction with the surveyed aspects.

According to Smith and Johnson (2018), a mean satisfaction score above 3.25 typically indicates high satisfaction among students in academic settings. It aligns with the interpretation of the data provided, where the mean score of 3.46 falls within the "Very High" range of satisfaction. Furthermore, Brown et al. (2015) emphasized the importance of considering both the mean and standard deviation in interpreting satisfaction data, as they provide insights into the central tendency and variability of responses.

The overall result for students' educational outcomes, combining academic performance, engagement, and satisfaction, has a mean of 3.53 and a standard deviation of 0.395. It further reinforces the positive educational environment and student experience observed in the study.

It is evident that the students in this study have excelled academically, shown strong engagement in their studies, and reported high levels of satisfaction with their educational experience.

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Table 1. There is a significant difference between participants' educational contexts when grouped by participants' profiles.

Indicators	Statistic	*p*-value
Sex	-0.308	0.758
Grade Level	455	<.001
Track / Curriculum	381	<.001

Table 1 presents the significant differences in the educational context of students at different levels when grouped by their profiles. When respondents were grouped according to sex, the analysis yielded a test statistic of -0.308 and a p-value of 0.758, meaning there was no significant difference in the responses.

On the other hand, when dealing with students' grade level, it was evident by the statistic of 455 and p-value of <.001, which likely indicates a strong effect size, meaning that students' educational experiences differed considerably depending on their grade level. It could be due to factors like curriculum variations, teaching methods tailored to specific age groups, or even classroom social dynamics that change as students progress through the grades. Furthermore, it was found that there is a significant difference in the scores of Grade 10, 11, and 12 students (p <.001). This discrepancy may be attributed to curriculum variances, age-specific teaching methods, and evolving classroom social dynamics as students progress through different grades (Smith, 2015; Johnson, 2018).

Similarly, when grouped according to the track/ curriculum where the students are enrolled, it is evident that a statistic of 381 and a p-value of <.001 indicates a strong difference in the student's responses. It suggests that students' prior educational experiences differed substantially as defined by their high school track or junior high school curriculum. In the regression analysis it was found that there is a significant difference on the scores of Senior High School Humanities and Social Sciences and Junior High School Basic Education Curriculum (mean difference of 0.907 p <.001), HUMSS and Special Science Curriculum (mean difference of 1.119 p <.001), Basic Education Curriculum and Senior High School Technical-Vocational Agri-fisheries Arts Strand (mean difference of 0.9169 p <.001) and Special Science Curriculum and TVL-AFA (mean difference of 1.1324 p <.001). This finding aligns with prior research highlighting the influence of educational background on student outcomes. Students from different tracks or curricula may have been exposed to varying difficulty levels, content focus, and pedagogical approaches (Shan & Luo, 2018). This variation in educational context could contribute to differences in students' knowledge, skills, and overall preparedness for the research task or situation being investigated.

Table 2. The significant difference between participants' educational outcomes when grouped by participants' profiles.

Indicators		Sex	Grade	Track/ Curriculum
Academic Performance	Statistic	3.42	16.7	33.3
	p-value	< .001	< .001	< .001
Student's Engagement	Statistic	2.57	0.76	4.65
	p-value	0.011	0.47	0.005
Student's Satisfaction	Statistic	2.35	2.75	3.06
	p-value	0.02	0.069	0.034

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The data in Table 2 suggests significant differences in academic performance based on sex, grade level, and senior high school track or curriculum.

Regarding sex, the data shows a statistically significant difference in academic performance between males and females, with a test statistic of 3.42 and a p-value of less than 0.001. Kyei, K. A., Benjamin, A. A. (2011) and Oppong, A. C. (2011). It indicates that females tend to outperform males academically.

Student grade level also appears to be a significant factor in academic performance. The data shows a test statistic of 16.7 and a p-value less than 0.001, suggesting that academic performance varies significantly across different grade levels K. A., & Benjamin, A. A. (2011) Workman, J. L., & Heyder, A. (2020). Higher grade levels may be associated with improved academic performance.

The student's senior high school track or curriculum also significantly impacts academic performance, with a test statistic of 33.3 and a p-value less than 0.001 Kyei, K. A., & Benjamin, A. A. (2011). It implies that a student's specific track or curriculum in senior high school can influence their academic outcomes.

These findings have important implications for educators and policymakers. Recognizing the factors contributing to academic performance can help develop targeted interventions and support systems to address disparities and promote student success (Workman et al., A. (2020) Oppong, A. C. (2011). Educators should consider students' unique needs and challenges based on their sex, grade level, and academic track to provide tailored support and guidance.

Table 3. Multiple Regression Analysis with Students Academic Outcomes as Outcome Variable

Predictor	Estimate	SE	t	p	Stand. Estimate
Intercept	2.010	0.2155	9.33	< .001	
Class Size	0.113	0.0256	4.40	< .001	0.286
Classroom Learning Environment	0.353	0.0574	6.15	< .001	0.399

The research is conducted to determine if class size and students' classroom learning environment predict students' academic outcomes. The two predictors are hypothesized to positively affect students' academic outcomes. Results show that the two predictors explain 21.7% of the variance, F (2,188) =26.1, p < .001. Specifically, class size (B= .11, t=4.40, p <.001) and Classroom Learning Environment (B= .35, t=6.15, p <.001) are positively associated with students academic outcomes.

The study suggests that students with smaller classes and higher classroom learning experiences report higher student outcomes (Finn & Achilles, 1990; Hattie, 2005). Smaller class sizes allow for more individualized attention and interaction between students and teachers, which can lead to improved academic performance and engagement (Finn & Achilles, 1990). A higher quality of classroom learning experiences, such as engaging instructional methods and a supportive learning environment, can positively impact student outcomes (Hattie, 2005).

CONCLUSION

In conclusion, the research has provided valuable insights into the respondents' demographic Profile, educational context, and educational outcomes. The findings indicate a higher representation of male students and a relatively balanced distribution across grade levels, with a notable proportion of students in extra-large classes. The classroom environment is generally positive, inclusive, and supportive, emphasizing student diversity, participation, and comfort. Most students achieved Very Satisfactory grades, and the high mean grade and low standard deviation suggest that the class performed well overall. The level of student engagement is high,

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indicating a strong commitment to academic pursuits, and student satisfaction is also high, suggesting a positive educational experience.

The analysis also revealed significant differences in educational context and outcomes based on sex, grade level, and senior high school track or curriculum. Females tend to outperform males academically, and academic performance varies significantly across grade levels. Students' specific track or curriculum in senior high school also influences their academic outcomes. Furthermore, the research found that class size and students' classroom learning environment are positively associated with student's academic outcomes, suggesting that smaller class sizes and higher-quality classroom learning experiences can lead to improved academic performance and engagement.

Overall, the study's findings have important implications for educators and policymakers. Recognizing the factors contributing to academic performance can help develop targeted interventions and support systems to address disparities and promote student success. Educators should consider students' unique needs and challenges based on their sex, grade level, and academic track to provide tailored support and guidance. By doing so, they can create a more inclusive and supportive learning environment that fosters academic excellence and prepares students for future success.

RECOMMENDATIONS

Based on the findings presented, here are some recommendations:

1. Consider implementing smaller class sizes to allow for more individualized attention and interaction between students and teachers, which has been shown to improve academic performance and engagement.

2. Focus on enhancing the quality of classroom learning experiences by incorporating engaging instructional methods and creating a supportive learning environment, as these factors positively impact student outcomes.

3. Tailor support and guidance based on students' sex, grade level, and academic track to address disparities and promote student success, recognizing the unique needs and challenges different student groups face.

4. To create a positive and engaging learning environment for all students, we will continue to promote inclusivity, encourage diverse perspectives, and address instances where students may feel singled out in the classroom.

5. Develop targeted interventions and support systems based on the factors that contribute to academic performance, such as class size and classroom learning environment, to further improve student outcomes and overall academic success.

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