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EXPECTATIONS AND PERFORMANCE OF MARINE ENGINEERING STUDENTS

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The study examined the expectations and performance of the marine engineering students for school year 2022 – 2023. Descriptive correlational method with researcher constructed survey questionnaire were used in the research. Part 1 of the survey dealt on questions respondents' sociodemographic profile, and part 2 had questions about their expectations composed of physical environment, facilities, instruction, promotion of the school and performance. The respondents were between 18 - 19 years old, second year and with monthly income of 15,000. Classroom have enough space for test and note taking, spacious to accommodate large audiences and lighting is appropriate for lectures and pleasant for audio/visual presentation often. In a similar vein, factors related to seat placement and selection were frequently evaluated by row, front, middle, and back of the room, center versus perimeter of the room, and mid-room versus sides of the room in order to ascertain which area of the room and environmental factor encouraged higher ratings. Regarding facilities, lighting in the classrooms, projectors, writing supplies for blackboards and whiteboards are available, school parking lot is large enough, benches are in good condition but some of the chairs need repair. Additionally, it has well-kept facilities, kind teachers who communicate well, creative teaching methods, and knowledgeable who frequently provide succinct explanations and vivid examples. It is inferred, the instructors' subject-matter expertise, the classroom's suitable balance of theoretical and practical experience, the value of the lessons learned in class for advancing one's career, their level of satisfaction with the course curriculum, and their grade were the main factors motivating students to recommend the school to their friends and colleagues. Findings highlight 455 students garnered a grade of 1.75 considered superior and those with a grade of 1.5 were lesser compared to those with a grade of 2.50. Students who received a grade of 1.75, was much higher than those students with a grade of 1.5 and several did not perform well than those with a grade of 2.50. Students with average grades were even lower than those with above-average ratings and the number of students with a 2.0 grade fell after the grade increased from 1.5 to 1.0.

Keywords: **expectations performance marine engineering students**

1. Introduction

1.1. Background

Developing practical and problem solving ability among marine students is one of the objectives in maritime education. Students have to be armored to deal with real life problems not only for the present but especially later in their adult lives. Ultimately, they are expected to deepen their learning by knowledge application to develop critical thinking skills, explain reasoning, hands–on applications and

generate creative ideas Birgili (2015) responsive to their line of work. It was claimed that they need to possess more hard skills than soft skills. But Eleby, Jr. (2009) cited in Dagdag et al., (2019) disagreed since students need to have balanced skills for the reason that the skills complement each other. However, this is among the illusive tasks which has never been perfected despite that it had been long time downloaded on the shoulders of teachers and accomplishing it has become a mission for teachers. Currently, the difficulty of accomplishing the tasks have doubled due to the pandemic wherein instruction relied on availability of internet connection. In the case of marine students, there is a mathematical, laboratory learning gap aside from other subjects. Though, the course and sequence in teaching had been religiously followed based on prescribed guidelines by the Department and the easiest yet substantial process was adopted. As Mabena (2021) found the learners exhibited low ability in solving and other areas, considered poor, with difficulty in answering simple addition. While subtracting mentally one digit numbers, they need to count on their fingers to give the correct answer. Undoubtedly, the performance of students is similarly low. The scenario depicts below par expectations considering they are in the tertiary level. As marine students, they are expected to have updated knowledge and have superior hard skills. Consequently, the need to improve performance should be the primary target and this can be accomplished considering Mazana, Montero and Casmir (2019) views that learning is a matter of attitude and character. When the person has high expectations, this mobilizes him to expel greater input which positively impacts performance. While Piaget contended that a positive attitude is necessary for developing new mental assemblies to meet and improve learning outcomes. Consequently, both teachers and learners have to exert extra efforts to narrow down the gaps. Students have to develop creativity, ability to think, communicate, and practice solving problems, develop number and spatial sense and the ability to appreciate patterns and structures. Nevertheless, Allen (2015) claimed teachers play a vital role in knowledge acquisition of students. They provide a solid educational foundation that shapes students' minds and acquire the ability and skills they need. As cited by Hill & Chin (2018) greater percentage of students' knowledge is attributed to teachers since abilities and skills are dependent on how teachers draw out facts. The current situation necessitates intervention and measures to narrow down the difficulties and deficiencies to meet expectations and improve performance. Based on the cited predicament of teachers and students, the research was conceptualized. The study is expected to make a contribution and cite ways to upgrade the abilities and capabilities of students especially they will be exposed to manipulative vessel maneuvers where mastery is of the essence. Likewise, it will not only benefit the students, teachers, parents but the seafarers' community in general.

1.2. Statement of the Problem
The general objectives of the research study is to determine the expectations and performance of marine engineering students for the second semester od 2022 -2023. Specifically, it sought to answer the following questions.
1. What is the profile of the respondents in terms of age, year level   and family income
2. What is the expectations of the students towards marine engineering course in terms of;
    a. physical environment
    b. Facilities
    c. instruction
3. What is the level of participation of the respondents towards the promotion of the marine engineering course?
4. What is the performance of the first year and second year students in the second semester of 2022 – 2023?
5. Is there a significant difference in the expectations of the students towards the marine engineering course considering their profile?
6. Is there a significant difference in the performance of the students toward the marine engineering course considering their profile?
7. Is there a significant relationship on the expectations and performance of the students in view of their profile?

1.3. Hypotheses
Based on the problems, the following assumptions were conceptualized.
1. There is no significant difference in the expectations of the students towards the marine engineering course considering their profile.

2. There is no significant difference in the performance of the students towards the marine engineering course considering their profile.
3. There is no significant relationship on the expectations and performance of the students in view of their profile?

1.4. Theoretical Framework

The study is anchored on Expectancy Theory (Vroom, 1964) which states that when a person is stimulated to perform or do something and had known that their extra efforts will be compensated, recognized and rewarded. This was among the basis why employers of companies has a salary payment scheme based on accomplishments. In return, the employers expect for added products produced, attraction, retention, productivity, quality, participation, and morale may improve. Theoretically, individuals who expect positive consequences, also called as positive expectancies, to arise from having low grades exert more efforts to learn while those with negative expectancies who supposed to have negative consequences likewise have negative expectancies study less. The relationship between positive expectancies and desirable behavior has steadily established varying degrees in adolescents, university students and social figures. While McMahon asserted as a result of his research that negative expectancies discriminate satisfaction and expectancies on study patterns and predict abstinence and relapse in students with learning problems. Expectations of aggression, risk, affect change, and impaired control have all been related to unworthy behavior.

Expectancy Theory is a comprehensive and well-respected explanation of motivation. It highlights the idea of linking effort and performance to reward. For the theory to be useful, your team must understand what counts as high performance, be equipped to deliver it, and value the rewards on offer. This correlated with the theory learning performance which signified that the greater the motivation of the student to learn, the more effort is expended in learning. Likewise, the greater the efforts used in learning, the higher is the learning performance. As what Walberg's Theory of Educational Productivity had explored on scholastic performance, a variety of factors influenced academic performance of students. The variables were social-emotional influences namely, classroom management, parental support, student-teacher interactions, social-behavioral attributes, and motivational-effective attributes, the peer. In the first three variables; ability, motivation, and age represent personal details of the student .While instruction is reflected in terms of quantity and quality. The final other factors were classroom climate, home environment, peer group, and exposure to media which tells about the psychological environment. All these explain these variables have certain effects that might cause problems with academic performance and expectations of students if it will not be properly guided.

1.5. Conceptual Framework

The research identified the sociodemographic factors; age, year level and family income to have bearing on the expectations and performance of the marine engineering students. Likewise, the study assumed that once full expectations of students were met, they voluntarily encouraged and promoted the course to their friends and colleagues. These factors were considered to have connections on expectations and performance of the students as illustrated by the diagram.

INDEPENDENT VARIABLES

Sociodemographic Profile

Age

Year Level

Family Income

Promotion of Marine Engineering Course

DEPENDENT VARIABLES

Expectations
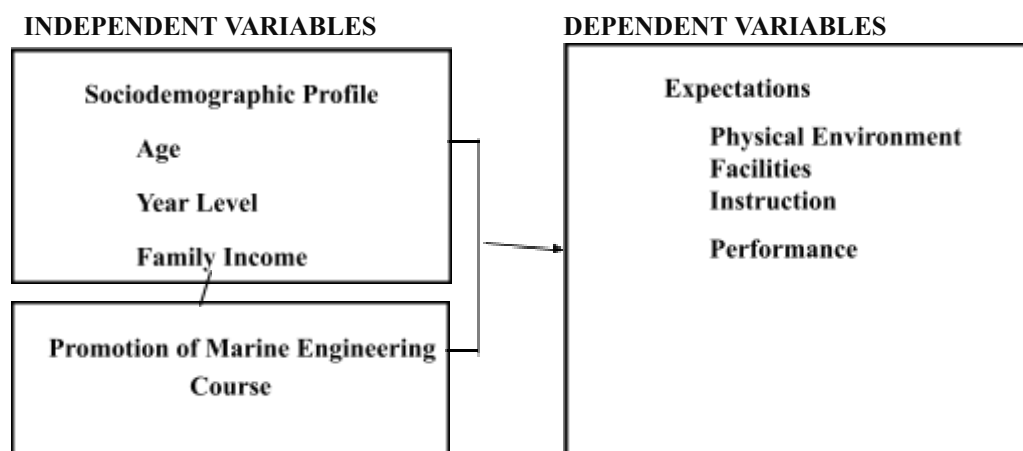
Physical Environment
Facilities
Instruction

Performance

Figure 1. Schematic diagram showing the relationship of the independent and dependent variables considered in the study.

2. Literature Review
2.1. International Literature
The study includes relevant current study both foreign and local studies. It ends with a synthesis. Studies have been conducted regarding expectations and performance with the ultimate aim of improving achievements. Theoretically, expectancy theory pertains to individuals who expect positive consequences (positive expectancies) to arise from drinking should consume more, while those who expect negative consequences (negative expectancies) should drink less. The relationship between positive expectancies and drinking behavior has consistently been found in a variety of samples, including adolescents, university students, social drinkers, and dependent drinkers. Jones and McMahon have found negative expectancies to differentiate line and group drinkers, discriminate satisfaction with current drinking patterns in social drinkers, and predict abstinence and relapse in problem drinkers. Academic achievement among students is closely associated with social and economic development. The academic achievement of the students is crucial in generating the highest caliber graduates who will serve as the nation's future leaders and labor force, driving its social and economic advancement. Science student performance is impacted by social, psychological, economic, environmental, and personal factors. Measuring student expectations and academic performance has drawn a lot of attention in the past. However, it poses challenges to academic literature. These variables, which differ from person to person, have a significant impact on students' performance. (Mushtaq and Nawaz). To better comprehend performance, Hill and Chin exposed that teachers' need to understand their students to recognize academic and professional standards as critical to fostering effective instruction and student learning. Previous studies look into two such types of knowledge: the ability to predict students' performance on cognitive assessments accurately and the understanding of how students think. Regarding whether or not these constructs can be accurately measured and whether or not this knowledge is related to teaching and student outcomes, the field offers scant evidence. Even though it was harder to quantify, student outcomes were still predicted by knowledge of misconceptions in one model. It is believed that having this knowledge facilitates a number of efficient teaching techniques, such as modifying the pace of instruction in accordance with the needs of the students. Specifically, according to global long-term trends in student math achievement, 9-year-old students' average scores in reading and math fell by 5 and 7 points, respectively, in 2022 compared to 2020. It was regarded as the first average score decline in mathematics history and the biggest since 1990. Similarly, during the COVID-19 pandemic, 70% of the 9-year-old students reported that they had been learning remotely from home, while 19% did not homeschool and 11% had no memory of homeschooling at all. Another was that in 2023, the difference between the male and female scores widened from 2020 to 2023 due to an 11-point drop for female students and a 7-point decrease for male students. However, there was a greater decline in math. Researchers suggest that to improve performance, students need to take notes. Taking notes is a skill that is regularly used in the classroom. Taking notes, which is primarily done in elementary school through college, is also preferred in post-university daily life. There are two parts to note taking as a skill when considering timing. In the first, the focus is on the instant that a note is taken, on what is being seen, read, or heard, and on that precise moment. Taking notes involves quickly writing down symbols and condensing crucial information for later use, according to Boch and Piolat (2005).

Likewise also Piolat et al. (2005) claim that taking notes is a difficult task that calls for written production processes and the ability to comprehend and select information. Furthermore, Zhang (2012) defined taking notes as writing down the major idea and significant details of the information heard. Nonetheless, some researchers have characterized taking notes as a bad habit. For example, according to Zuckerman (2016), taking notes is done via email at huseyinozcakmak@gmail.com. The authors consent to this article's perpetual availability under the terms of the Creative Commons Attribution License 4.0 International License. A convoluted and multifaceted process that causes students to take notes that are insufficient or useless.

The study of Bradbury (2016) exposed students' attention decline 10–15 min into lectures and the greatest variability in student attention arises from differences between teachers and not from the teaching format itself. Certainly, even the most interesting material can be presented in a dull and dry fashion. This reverts to the job of the instructor to enhance their teaching skills to provide not only rich content but also a satisfying lecture experience for the learners. Once interest diminishes, learning also starts its downward trend. A research was conducted by Eleby (2009) to explore and examine to what extent there exists a relationship between social and academic study skills and its significance. The study answered, specifically, (1) if there exists a relationship between social and academic skills, (2) the extent of the relationship, and (3) what can educational leaders and teachers do to assist the student

making improvement in social and academic skills. The research design chosen for this case study was a random non-experimental design, spanning across five (5) states that included eighteen (18) teachers and eighteen (18) students.

2.2. Local Literature

In a similar vein, the Philippines' mathematical performance is also receiving a lot of attention. Filipino students underperformed in mathematics and science for grade 4 when compared to other students, according to reports from the Trends in International Mathematics and Science Study 2019 (TIMSS). Eighty-one percent of Filipino students failed to meet the level, with about 19% falling into the Low benchmark category, which indicates that they only possess rudimentary mathematical knowledge (Bernardo et al., 2023). In this regard, challenges were on the hands of elementary school math teachers since the subject calls for crucial instruction to enable students to acquire mathematical ideas that they will need in later grade levels. It can be asked how much harder will teachers be to facilitate learning in an in-person setting if they already struggle to do so in an online setting with spotty connectivity. Despite the limitations of technology, low computer literacy, and insufficient funding, this remains the largest challenge facing educators. Additionally, the observed lack of mathematical concepts among students, particularly in intermediate (grades 4-6), has made teaching in the new setting much more challenging for elementary teachers. In order to prevent further embarrassment for the nation, it is imperative that we investigate the ways in which elementary mathematics teachers have responded to the current situation and are preparing their classrooms for a post-pandemic educational environment. While there are no set teaching philosophies that educators should adhere to, applying well-known pedagogies can still pave the way for enhanced instruction and learning outcomes. Gaining knowledge of the new methods being used by math teachers in elementary schools can help you understand how they affect student learning.

This study evaluated the iSchools Project implemented in the Public High Schools of Tarlac Province, Philippines by the Commission on Information and Communications Technology (CICT) in partnership with the selected State Universities and Colleges. Using survey questionnaires, data were gathered from the public high school teachers who were the recipients of the project. Despite these problems, however, the project was rated by the teachers as very satisfactory in terms of project administration, project components, and project delivery system. This implies that the project in general was effective in attaining its objectives which is ICT integration in education and to bridge the digital divide among public high school teachers. This study evaluated the iSchools Project implemented in the Public High Schools of Tarlac Province, Philippines by the Commission on Information and Communications Technology (CICT) in partnership with the selected State Universities and Colleges. Using survey questionnaires, data were gathered from the public high school teachers who were the recipients of the project. Despite these problems, however, the project was rated by the teachers as very satisfactory in terms of project administration, project components, and project delivery system. This implies that the project in general was effective in attaining its objectives which is ICT integration in education and to bridge the digital divide among public high school teachers.

Özçakmak and Mustafa conducted a study to ascertain whether taking notes while reading or listening can affect the comprehension success of aspiring Turkish language teachers. Additionally, the study examined the groups' comprehension scores in relation to gender and academic scores. The study used the Comprehension Achievement Test to calculate the students' reading and listening comprehension achievement scores. Upon completion of the study, it was discovered that the comprehension scores of the Listening-Note Taking group were statistically superior to those of the Reading, Reading-Note Taking, and Listening groups. 4s

Taking notes is a skill that is regularly used in the classroom. According to Boch and Piolat (2005) and Zhang (2012), taking notes involves quickly writing down the main idea and significant details of the information heard, as well as condensing pertinent information for later use. The authors consent to this article's perpetual availability under the terms of the Creative Commons Attribution License 4.0 International License. A convoluted and multifaceted process that causes students to take notes that are insufficient or useless. Taking notes is a skill that is regularly used in the classroom. According to Boch and Piolat (2005) and Zhang (2012), taking notes involves quickly writing down the main idea and significant details of the information heard, as well as condensing pertinent information for later use. The authors consent to this article's perpetual availability under the terms of the Creative Commons Attribution License 4.0 International License. A convoluted and multifaceted process that causes students to take notes that are insufficient or useless.

Student academic performance measurement has received considerable attention in previous research, it is challenging aspects of academic literature, and science student performance are affected

due to social, psychological, economic, environmental and personal factors. These factors strongly influence student performance, but these factors vary from person to person (Irfan Mushtaq and Shabana). As to Losonczy-Marshall and Marshall in their exploratory work stated an exploratory factor analysis reduced the items to five seat-selection factors: Performance, Social, Asocial, Noticeability, and Environment. Seat selection factors were analyzed in terms of seating location: by row, by front/middle/back of the room, by center versus perimeter of the room, and by mid-room versus sides of the room. The Asocial factor was rated higher by those who sat in the back of the room, while the Environment factor was rated higher by those who sat in the center of the room.

Previous studies mainly focused on the effects of lighting and sound factors on cognitive performance under laboratory conditions. They found that noise and light affected long-term memory but did not find interaction effects between noise and light investigated the cross-modal effects of lighting and sound factors (background noise) on environmental perception and cognitive performance, investigated the effects of lighting and sound factors on worker productivity in real office environments. Ma and Nie also reported that lighting affected sound perception. Yang and Moon found that sound affected lighting perception. The artificial neural network models predicted the cross-modal effects of lighting and sound factors on human environmental perception. The increase in illuminance leads to a slightly noisier acoustic perception when the sound level is lower than the neutral sound level. However, the cross-modal effects of lighting and sound factors remain controversial. The purpose of the study is to investigate the effects of lighting and sound factors on environmental sensation, perception, and cognitive performance. It tests the hypothesis that there are cross-modal effects on environmental perception but none on environmental sensation. This is because perception is the awareness of environmental elements through physical sensation, whereas sensation is a mental process resulting from the direct external stimulation of a sense organ. In this study, identical semantic attributes for lighting and sound perception are used for comparisons. The other hypothesis in this study is that cognitive performance is influenced by lighting and sound factors. This experimental study attempts to observe the psychological impact of lighting and sound factors on sensation, perception, and cognitive performance in an indoor environment.   While an extensive body of research exists regarding the delivery of course knowledge and material, much less attention has been paid to the performance effect of seating position within a classroom. Research findings are mixed as to whether students in the front row of a classroom outperform students in the back row. The findings suggest that student performance is not significantly altered by seating location or seating type.

3. Methods

The research utilized the correlation method to analyze the expectations and performance of marine engineering students at CPC, focusing on their performance. The study involved 297 marine engineering students from Colegio de la Purisima Concepcion, selected from a total population of 375 using the Cochran formula with a 0.05 margin of error. The needed data was the researcher-made questionnaire which consisted of the sociodemographic profile of the respondents, the expectations and part three was the performance. The reliability statistics of the study was 0.923 in Cronbach's Alpha test and for auditory learning was 0.911. The scoring interval was a scale of five with 5 for Very often/Very High, 4 for Often/High, 3 for Moderately Often/Fairly High, 2 Seldom/Low and Very Seldom/Very Low.   The data was scored and given the corresponding verbal interpretation, for descriptive data, frequency, percentage, and mean were used and for the inferential statistics, one-way analysis of variance, and Pearson r was used for relationship.

4. Result and Discussion

4.1. Presentation, Analysis and Interpretation Socio-demographic Profile of the Respondents
The factors taken into account in the study, including age, year level, and monthly income, were used to group the respondents as shown in Table 1.

Age. The majority of respondents (69.03%), those below 18 years old (8.64%) and those 21 years old and above constituted 8.64 percent. Data denoted, a third of the total responders come from ages below 18 years and 21 years old and above.

Year level. According to year level data, first year respondents made up 52, or 26.9 percent, and second year respondents made up 145, or 73.6.

Family income. Data reveal most of the parents' income is below 15,000.00, others have 15,000 – 19,999. In general, the income of parents was insufficient to support the education of their children and primary needs of the family.

Table 1. Socio-demographic profile of the respondents		
Categories	Frequency	Percent
Age		
21 years old and above	44	22.33
18-21 years old	136	69.03
Below 18 years old	17	8.64
Total	197	100
Year Level		
1st year	52	26.39
2nd year	145	73.61
Total	197	100
Family Income		
25,000 and above	11	5.58
20,000 – 24,999	20	10.15
15,000 – 19,999	50	25.38
10,000 -14,999	116	58.88
Total	197	100

4.2. Expectations of Marine Engineering Students in terms of Physical Environment

Table 2a describes the expectations of the respondents. Data revealed that often the classroom have enough space to take notes, have enough desk space to take tests, lighting is appropriate during lectures, large enough for the number of students enrolled in the course and lighting is appropriate during audio/visual presentation as supported by the means from 3.91 to 4,25 interpreted as very often and often. This indicated the physical environment of the classroom frequently met expectations of the students. It implied the classroom complied with the minimum standard requirement as to space allotted per student in taking notes, during exam and student ratio in terms of size of the class. As Özçakmak (2019) justified the impact of note taking during reading and listening where participants comprehension scores much higher thus improving their academic grade point averages. Therefore, providing appropriate sitting capacity to comfortably accommodate students is not only meeting their expectations but indirectly favor improvement of performance.

Further, lighting is appropriate during lectures and audio/visual presentation. The importance of lighting was validated by Yang and Jeon (2023) that the effects of sound and lighting factors manifested in environmental perception rather than environmental sensation, validated the importance of lighting. The two factors that affected environmental perceptions and cognitive function the most were sound and lighting, respectively. For better indoor environmental control, multisensory interaction requires taking into account not just light and sound but also other interior environment components.

The appropriateness and ambience of the physical environment accorded students the needed focus and concentration on their studies, hence improving their performance. However, the part that received lower rating but with often interpretation consisted of seats are comfortable, seats arrangement is appropriate, fitted with the latest in classroom technology, displays visual items that distract students, has desirable seats and is prone to noise coming from the outside have means from 3.52 – 3.82. Data implied that students find the sets less comfortable though arranged appropriately. Sets are important for students to be seated comfortably, Losonczy-Marshall and Marshall (2013) stated that seats have a positive impact on student behavior, academic performance and class participation. It was assumed that students perform better in seats allocated to them than those they choose where to sit themselves.

Likewise, Seat selection factors were studied as to seating location: by row, by front/middle/back of the room, by center versus perimeter of the room, and by mid-room versus sides of the room. Those who sat in the back of the room rated higher, while the Environment factor was rated higher by those who sat in the center of the room. However, the room also needs to have the latest technology fittings, reduce the number of displayed visual items and noise coming from the outside need to be minimized. These are the physical environments which moderately meet expectations of students. But Meeks et al., contradicts the findings as to whether students in the front row of a classroom outperform students in the back row. Another issue was the effect of environmental factors, specifically seating type, on student performance. Finally, it was suggested that student performance is not significantly altered by seating location or seating type. All these results have bearing on the findings of the study which also dealt with the physical environment and facilities.

Table 2a. Physical environment

The classroom,	Mean	Verbal Interpretation
1. have enough space to take notes	4.25	Very Often
2. have enough desk space to take tests	4.12	Often
3. lighting is appropriate during lectures	4.05	Often
4. is large enough for the number of students enrolled in the course	4.04	Often
5. lighting is appropriate during audio/visual presentation	3.91	Often
6. facilitates students to easily hear the professor	3.89	Often
7. has meet the level of my expectation	3.89	Often
8. the classroom is better than other classrooms I have been before	3.88	Often
9. provides easy access to computer	3.85	Often
10. would prefer the course/subject is taught in another classroom	3.83	Often
11. seats are comfortable	3.82	Often
12. seats arrangement is appropriate	3.77	Often
13. fitted with the latest in classroom technology	3.73	Often
14. displays visual items that distract students	3.71	Often
15. has desirable seats	3.53	Often
16. is prone to noise coming from the outside	3.52	Often
Mean	3.86	Often

4.21 - 5.00 Very Often 3.41 - 4.20 Often 2.61 - 3.40 Fairly Often 1.81 - 2.60 Seldom 1.00 - 1.80 Very seldom

4.3. Expectations of Marine Engineering Students in terms of Facilities

Presented in Table 2b are the expectations of the respondents in terms of facilities. The facts revealed that there are sufficient lighting facilities in the classrooms, writing materials are available for black and whiteboards, they are equipped with projectors, benches are in satisfactory condition, and the school car park is big enough. These are the facilities considered adequate often, as per the mean of 3.81 to 4.13. Data signifies the availability of facilities, from the most needed to those not frequently used. This means that the focus of equipment procurement was on the necessity of carrying out academic and laboratory instruction, which met the students' expectations.

Table 2b. Expectations of Marine Engineering Students in terms of facilities

Statements	Mean	Verbal Interpretation
1. Sufficient lighting in the classrooms	4.13	Often
2. School car park big enough	3.98	Often
3. Writing materials available for the black/whiteboards	3.84	Often
4. Equipped with projectors	3.84	Often
5. Benches in a satisfactory condition	3.81	Often
6. Have interactive whiteboard	3.81	Often
7. Cafeteria, canteen or dining facilities	3.81	Often
8. Black/whiteboards in the classrooms in good condition	3.8	Often
9. Sports suite equipment sufficient	3.77	Often
10. Equipped with the required standard of computer	3.77	Often
11. Make optimal use of environmental resources	3.76	Often
12. Have double glazed or upvc windows	3.74	Often
13. Sufficient lighting in the hallways	3.74	Often
14. Computer lab sufficiently equipped	3.67	Often
15. Chairs in a satisfactory condition	3.65	Often
16. Have a freely available wifi network?	3.61	Often
17. School have a sufficient number of bicycle racks	3.52	Often
18. Possessions in the lockers sufficiently safe	3.29	Fairly Often
19. Lockers big enough for your needs	3.18	Fairly Often
20. Cool enough	3.17	Fairly Often
Mean	3.69	Often

4.21 - 5.00 Very Often 3.41 - 4.20 Often 2.61 - 3.40 Fairly Often 1.81 - 2.60 Seldom 1.00 - 1.80 Very seldom

However, there are chairs considered in satisfactory condition, so it can be assumed that some chairs were not in perfect condition, indicating they were used years ago. Likewise, Hallways were not sufficiently lit based on the mean of 3.74 rated as often. In terms of the condition of the computer laboratory, it was assessed with a 3.67 mean, which indicated it was not fully or adequately equipped

and was interpreted often. This means the computer laboratory has equipment but is limited; hence, it did not meet students' needs very satisfactorily. The situation was similar in terms of the availability of the WiFi network. Findings corroborated with Lorenzo (2016 that the ICT integration in education was effective bridging the digital divide among teachers, Thus, based on the result of the study, the college may augment its digital possessions to cope up with students' expectations. On the other hand, possessions of students placed in lockers were not sufficiently safe and less spacious to accommodate the things of the students. Another area rated low was the overall environmental condition of the school, it was claimed that it is not cool enough. The study of Villarreal et al., (2023) also claim learning and identifying a variable with potential to define environmental conditions is quite difficult to attain since this vary from time to time which is a reality. In general, the facilities were sufficient, as supported by the overall mean of 3.69 rated as often, which meant that the lighting, parking area, classroom facilities, projectors, laboratory equipment, computers, and other amenities had met students' needs and expectations.

4.4. Expectations of Marine Education Students in terms of Instruction

Reflected in Table 2c were the expectations of marine education students in terms of instruction. Data shows the instructors are approachable for help, good at communication, use innovative methods of teaching, are knowledgeable about the topic that was taught, provide a clear explanation of the topic, and are motivating and enthusiastic. While in the conduct of the class, it was shown that the class was well organized, the teaching environment helped in better learning, the grading system was not biased, the hygiene was well maintained, and the facilities provided were up to students' expectations. Results implied that the instructors are friendly and eager to assist, have excellent communication skills, employ creative teaching strategies, are informed about the subjects they are teaching, and give concise explanations of the material. As shown in the study of Munna and Kalam (2021), instructors who are helpful and willing to help, have good communication skills, employ innovative teaching techniques, and are knowledgeable about the subjects they teach inspire students to improve their performance. Whereas, Akomolafe & Adesua (2016) stated that the way the class was conducted demonstrated that it was well-run, which promotes a better teaching and learning environment. Further, when the grading system was impartial, the hygiene was kept up-to-date, and the facilities met the needs of the students, expectations were optimized.

Table 2c. Expectations of Marine Education Students in terms of Instruction

	Statements	Mean	Verbal Interpretation
1.	Approachable for help	4.17	Often
2.	The class was very well organized	4.11	Often
3.	The instructor was very good at communication	4.11	Often
4.	Innovative methods of teaching	4.07	Often
5.	The instructor was very knowledgeable about the topic that was taught	4.06	Often
6.	Clear explanation of the topic	4.02	Often
7.	The instructor was motivating and enthusiastic	4.01	Often
8.	Enthusiasm for teaching	4.01	Often
9.	Class Preparation	4.00	Often
10.	The teaching environment in the class helped in better learning	3.99	Often
11.	Knowledge of the material available	3.99	Often
12.	The instructor's methods helped in understanding the topic better	3.96	Often
13.	The grading system was not biased	3.96	Often
14.	The hygiene was very well maintained at the facility	3.96	Often
15.	The facilities provided were up to your expectations	3.87	Often
	Mean	4.02	**Often**

4.21 - 5.00 Very Often 3.41 - 4.20 Often 2.61 - 3.40 Fairly Often 1.81 - 2.60 Seldom 1.00 - 1.80 Very seldom

4.5. Promotion of the school to friends and Colleagues of Marine Education Students

The school's promotion to friends and colleagues of marine education students is shown in Table 3. The findings demonstrated that the primary factors motivating students to recommend the school to their friends and colleagues were their instructors' expertise in the subject matter, the classroom's appropriate balance of theoretical and practical experience, the value of the lessons learned in class for advancing one's career, their degree of satisfaction with the course curriculum, and their grade. This indicates that students recommend the school to their friends due to the instructors' subject-matter expertise and ability to vividly cite logical and practical experiences. As stated by Ali et al. (2023), subject matter knowledge is a prerequisite for imparting the basic required knowledge, wherein the need to enhance and polish teachers' skills through training programs becomes a necessity. Another is the school's

support for the growth and development of one's career through examples and fairness in grading. This demonstrates the students' contentment with the education they receive from the school. Conversely, the methods used in general to conduct classes, the degree of difficulty students encounter with the curriculum, the frequency of evaluations and assessments, and the importance of the class over money were the reasons why students used them infrequently. This means that the students tended to be selective in promoting the school, though other reasons seemed reasonable enough.

Table 3. Promotion of the school to friends and colleagues

On a scale of 1 to 5, 5 being the highest, answer in the following statements.	Mean	Verbal Interpretation
1. how would you rate the instructor for their knowledge about the topic being taught	4.02	Often
2. Did the class provide the right amount of theoretical and practical experience	4.01	Often
3. Will the class teachings be helpful for the growth of your career.	4.01	Often
4. level of satisfaction with the curriculum set for the class	3.94	Often
5. Please state how satisfied you were with the grade given to you.	3.92	Often
6. how beneficial was the class for you	3.9	Often
7. how satisfied are you with the overall format of the class	3.88	Often
8. How helpful was the class material provided to you	3.87	Often
9. How difficult was the class curriculum for you	3.87	Often
10. How often were you evaluated in the course of your class	3.82	Often
11. Does the class provide good value for money.	3.76	Often
Mean	3.91	Often

4.21 - 5.00 Very Often 3.41 - 4.20 Often 2.61 - 3.40 Fairly Often 1.81 - 2.60 Seldom 1.00 - 1.80 Very seldom

4.6. Performance of Students in the First and Second Semester 2022 – 2023

The data on the performance of students in the first and second semesters of 2022–2023 is shown in Table 4. Data revealed the majority of the students had a grade of 2.0 with an equivalent description of average. While there were 455 students who garnered a grade of 1.75 considered superior and those with a grade of 1.5 were lesser compared to those with a grade of 2.50 described as further, it can be inferred that students have an average grade and are even lower than those with above-average ratings. This meant the percentage of students whose expectations had been met was lower than that of those with partially met expectations. If their expectations are met, then they will be inspired to study, which will positively impact their performance. However, the results show that there were students who received conditional ratings, and some actually failed the subject. In the second semester, the results showed 121 had a 1.0 rating for the first semester compared to 208 who got the same rating in the second semester. The same is true for the group with a 1.5 rating; the increase in the number of those with a 1.5 grade was higher compared to the first semester. This can be attributed to the conducive classroom conditions due to the requested and procured classroom facilities. Data also manifested that the increase in grade was from 1.5 to 1.0, and then the number of students with a grade of 2.0 decreased. It can be assumed that the decrease fell to the 2.5 or 3.0 group, respectively. It is also observable that the number of students in the first semester with a grade of 3.0 increased almost six times. Further, this showed that several factors had affected the decrease in grades, which can include the difficulty of the lesson, the teacher factor, classroom management, and the student himself. As per the statement from Boiser et al. (2019), in order to avoid failures, students should have a clear understanding of their abilities in order to pursue a certain career, which will help them reach their full potential by motivating them to pursue education and helping them set goals for their lives. Attending school may create a course specifically for students who receive failing grades. to maximize their potential and improve their academic performance. The results conform to Hako and Shikongo's (2019) findings, which enumerated the lack of study skills, poor time management, inability to prioritize school work, and lack of a mentoring program as the major factors that hinder student completion of study. These factors impede the academic progress of students, which needs to be minimized;

Table 4. Performance of Students in the First and Second Semester 2022 – 2023

Subjects	1.0	1.50	2.0	2.50	3.0	5.0	Number of Students	Passing Rate
ELECTRO 1	7	63	50	30	1		151	100%
MDRAW	3	83	60	9	1		156	100%
MACH 1		18	73	68			159	100%
GEC	35	81	14	9			139	100%
NGEC		26	116	14			156	100%
ICT	50	72	34				156	100%

Thus, crucial information on ways students' progress within the framework of the study and providing a conducive, supportive environment must be undertaken. The results have similarities to the findings of the current study.

4.7. Significant Difference on the Expectations of the Marine Engineering Students Considering Some Variables

Table 5 presents the significant difference in expectations of the marine engineering students, considering some variables. Results showed all the expectation variables and participation in the promotion of the course in terms of year level and age have established significant differences.

Table 5. Significant difference on the expectations of the marine engineering students considering some variables

Source of Variation		t/F	Sig. (2-tailed)	Probability
Year Level				
Physical Environment	First Yr.	7.932	.000	s
	Second Yr.	8.089	.000	s
Facilities	First Yr.	6.030	.000	s
	Second Yr.	7.504	.000	s
Instruction	First Yr.	5.437	.000	s
	Second Yr.	5.459	.000	s
Promotion of the course	First Yr.	6.263	.000	s
	Second Yr.	6.053	.000	s
Age				
Physical Environment	Between Groups	6.352	.003	s
	Within Groups			
Facilities	Between Groups	7.300	.001	s
	Within Groups			
Instruction	Between Groups	5.567	.004	s
	Within Groups			
Promotion of the course	Between Groups	6.327	.002	s
	Within Groups			
Income				
Physical Environment	Between Groups	1.655	.178	ns
	Within Groups			
Facilities	Between Groups	1.531	.208	ns
	Within Groups			
Instruction	Between Groups	1.075	.361	ns
	Within Groups			
Promotion of the course	Between Groups	1.835	.142	ns
	Within Groups			

This means the respondents' expectations varied as to age and grade level. This can be attributed to the variations in students' experiences. The hypothesis that there is no significant difference in the expectations of marine engineering students considering year level and age was rejected. The computed t and F values were lower than the 5% level of significance. The study of Lopez-Agudo (2021) supported the findings that both students and parents expect degree-level education and that students' cognitive and non-cognitive outcomes explain the mechanism of the formation of expectations and students' completed years of schooling. In terms of monthly income, the variables failed to show a significant difference; hence, the hypothesis for the variables was accepted. It means a similarity in expectations existed among the respondents when it comes to family income.

4.8. Significant Difference on the Performance of the Marine Engineering Students

Table 6 presents the significant difference in the performance of the marine engineering students considering first- and second-semester ratings. Results based on the 1.0, 2.0, and 3.0 grades between the first and second semester ratings depict an insignificant difference, except for the students with 1.5 ratings. The hypotheses for the variables 1.0, 2.0, and 3.0 were accepted and rejected for the 1.5 ratings. This showed variation existed in this group of students, probably due to varying experiences and challenges.

As stated in the study by Husaini and Shukor (2023), low entry grades, family support, accommodation, student gender, previous assessment grade, student internal assessment grade, GPA, and students' e-learning activity are the most significant factors influencing students' academic performance. Similarly, Koirala (2021) declared that students taking fewer credit hours or many credit hours or having a status of full-time or part-time students is not enough to cause failing grades; rather, attendance in class, age, and sex of students have a significant impact on their grades.

Table 6. Significant difference on the performance of the marine engineering students

Categories	Grade	t	Sig. (2-tailed)	Probability
1st Semester & 2nd Semester	1.0	-.710	.517	ns
1st Semester & 2nd Semester	1.5	-.552	.598	ns
1st Semester & 2nd Semester	2.0	2.101	.034	s
1st Semester & 2nd Semester	3.	-.355	.757	ns

4.9. Significant Relationship on the Expectations of the Marine Engineering Students Considering Some Variables

Table 7 presents the significant relationship between the expectations of the marine engineering students and some variables. Data revealed age and year level, except for income, showed a relationship with the physical environment, facilities, instruction, and promotion of the course.

Table 7. Significant relationship on the expectations of the marine engineering students considering some variables

Variables	Expectations	Pearson r	Sig. (2-tailed)	Probability
Categories				
Age				
	Physical Environment	-.188[**]	0.007	s
	Facilities	-.208[**]	0.003	s
	Instruction	-.214[**]	0.002	s
	Promotion of the course	-.190[**]	0.006	s
Year Level				
	Physical Environment	-.486[**]	.000	s
	Facilities	-.389[**]	.000	s
	Instruction	-.356[**]	.000	s
	Promotion of the course	-.402[**]	.000	s
Family Income				
	Physical Environment	-0.127	0.069	ns
	Facilities	-0.092	0.187	ns
	Instruction	-0.031	0.653	ns
	Promotion of the course	-0.058	0.411	ns

The hypothesis correlating the variables was rejected, but for income, it was accepted. Age and grade level have a bearing on the physical environment, facilities, instruction, and promotion of the course as factors of expectations. This implied that the views of the respondents were affected by their age and grade level. This was justified by Baafi (2020), who confirmed that in a pleasant physical environment, students perform better than those where the learning environment is not encouraging. Thus, it was established that adequate school facilities provide a positive educational climate suitable for student learning. This further relates to Pak's (2015) findings, which led to the conclusion that successful students perceived teachers as the most important school factor influencing their academic performance.

5. Conclusions and Implications

The respondents were between 18 - 19 years old, second year and with a monthly income of 15,000. Classrooms have enough space for test and note taking, spacious to accommodate large audiences and lighting is appropriate for lectures and pleasant for audio/visual presentation often. In a similar vein, factors related to seat placement and selection were frequently evaluated by row, front, middle, and back of the room, center versus perimeter of the room, and mid-room versus sides of the room in order to ascertain which area of the room and environmental factors encouraged higher ratings. Regarding facilities, lighting in the classrooms, projectors, writing supplies for blackboards and whiteboards are available, the school parking lot is large enough, benches are in good condition but some of the chairs need repair. Overall, the facilities were adequate in terms of lighting, parking, classroom setup, projectors, lab equipment, computers, and other amenities that frequently satisfied the needs and expectations of the students.

Regarding classroom management, the space was orderly, the instructional setting promoted enhanced learning, there was an equitable grading scheme, and the air was clean and refreshing. Additionally, it has well-kept facilities, kind teachers who communicate well, creative teaching methods, and knowledgeable people who frequently provide succinct explanations and vivid examples.

It is inferred, the instructors' subject-matter expertise, the classroom's suitable balance of theoretical and practical experience, the value of the lessons learned in class for advancing one's career, their level of satisfaction with the course curriculum, and their grade were the main factors motivating students to recommend the school to their friends and colleagues. However, the general teaching strategies, the level of challenge students face with the curriculum, the frequency of tests and evaluations, and the value of the classroom instruction over money were the reasons students infrequently used in advertising the school. Findings highlight 455 students garnered a grade of 1.75 considered superior and those with a grade of 1.5 were lesser compared to those with a grade of 2.50.

Students who received a grade of 1.75, was much higher than those students with a grade of 1.5 and several did not perform well than those with a grade of 2.50. Students with average grades were even lower than those with above-average ratings and the number of students with a 2.0 grade fell after the grade increased from 1.5 to 1.0.

References

Adesua, V. O., Akomolafe, C. O. (2015). The Classroom Environment: A Major Motivating Factor towards High Academic Performance of Senior Secondary School Students in South West Nigeria.Department of Educational Foundations and Management, Ekiti State University, Ado-Ekiti.

Arroyo, Y.P.V., **Peñabaena-Niebles**,R., **Correa C. B. (2023).** Influence of environmental conditions on students' learning processes: A systematic review

Boiser, C., Canete, M., Dobles, J., Torrevillas, C., Tuyogon, R. A. (2019).Factors That Affect Learners at Risk Of Getting Failing Grades: Proposed Remedial Measure.1st UPY International Conference on Applied Science and Education. Journal of Physics: Conference Series 1254 (2019) 012018. IOP Publishing. doi:10.1088/1742-6596/1254/1/012018

Dagdag, J. D., Cuizon, H. G., & Bete, A. O. (2019). College students' problems and their link to academic performance: Basis for needs-driven student programs. Journal of Research, Policy & Practice of Teachers and Teacher Education, 9(2), 54–65. https://doi.org/10.37134/jrpptte.vol9.no2.5.2019

Eleby, C. (2009). The impact of a student's lack of social skills on their academic skills in high school (Unpublished master's thesis). Marygrove College, Detroit, Michigan. Marygrove College Detroit, Michigan.

Hill, H. C., Chin, M. (2018).Connections Between Teachers' Knowledge of Students, Instruction, and Achievement Outcomes Harvard Graduate School of Education. American Educational Research Journal. Vol. 55, No. 5, pp. 1076–1112 DOI: 10.3102/0002831218769614.

Husaini, Y. A., Syufiza,N., Shukor, A., (2023). Factors Affecting Students' Academic Performance: A review. Arab Open University - Oman

Koirala, G. (2021). Factors Affecting Students' Grade. School of Business, University of Rio Grande, Rio Grande, OHIO, USA. Published by Center for Global Research Development. International Journal of Education and Human Developments, Vol. 7 No. 1. ISSN 2415-1270:ISSN 2415-1424.

Kwabena, R., Baafi, A. (2020.)School Physical Environment and Student Academic Performance.Institute of Research on Adult Education and Knowledge Management, Eötvös Loránd University, Budapest, Hungary.DOI: 10.4236/ape.2020.102012

Lorenzo,A. R. Effectiveness of the Computer and Internet Literacy Project in Public High Schools of Tarlac Province, Philippines. Institute of Education, Tarlac College of Agriculture, Camiling, Tarlac, Philippines jorizarl@gmail.com

Losonczy-Marshall, M., Marshall,P.D. (2013). Factors in Students' Seat Selection: An Exploratory Study. Salisbury University. Psychological Reports 112(2):651-66. DOI:10.2466/11.07.PR0.112.2.651-666.

Meeks, M., Knotts,T. L., James, K. (2023). The Impact of Seating Location and Seating Type on Student Performance. Education Sciences. DOI:10.3390/educsci3040375

Munna, A. S., Kalam,A. (2021).Teaching and learning process to enhance teaching effectiveness: a literature review. International Journal of Humanities and Innovation (IJHI) Vol. 4

Niitembu, A., Shikongo,P.,T. (2019). Factors Hindering Students from Completion of Studies Within The Prescribed Duration: A Case Study of University of Namibia, Windhoek, Namibia

Özçakmak, H. (2019). Impact of note taking during reading and during listening on comprehension Department of Turkish Language Education, Faculty of Education, Hatay Mustafa Kemal University, Turkey. Vol. 14(16), DOI: 10.5897/ERR2019.3812.

Pak, C. H., (2015). A study of high-performing at-risk high school students and their perceptions on academic success and achievement. DOI: 10.4236/ape.2020.102012. https://digitalcommons.pepperdine.edu/etd/649.

Pak, Charles H., "A study of high-performing at-risk high school students and their perceptions on academic success and achievement" (2015). Theses and Dissertations. 649.https://digitalcommons.pepperdine.edu/etd/649

Wonyoung Yang,W., Jeon,J. Y. (2023). Effects of lighting and sound factors on environmental sensation, perception, and cognitive performance in a classroom. Journal of Building Engineering.https://doi.org/10.1016/j.jobe.2023.107063