Factors Affecting the Academic Performance of Pangasinan Merchant Marine Academy’s Bachelor of Marine Transportation Students

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Abstract—This study uses a quantitative-correlational-descriptive research approach to look at the factors that influence the academic performance of third-year marine transportation students at Pangasinan Merchant Marine Academy. Despite a predominance of younger guys from lower-income families, the study contradicts conventional wisdom by revealing no significant links between demography and academic performance. Both student and teacher-related characteristics were shown to have no significant link with academic achievement. However, all participants agreed on the necessity of good study habits, notably dedicated study time, note review, and active engagement. The study emphasizes the importance of teacher-related aspects such as mastery of course content, interactive involvement, and adaptive teaching approaches in improving academic accomplishment. Recommendations include tailored support programs for specific student demographics, as well as additional research into factors contributing to positive academic performance in technical courses, with the goal of improving teaching methodologies and fostering a comprehensive understanding of maritime education dynamics.

Keywords—Quantitative-correlational-descriptive research approach, Academic performance, Marine transportation students, Teacher-related aspects, Study habits

I. INTRODUCTION

Being a student is a crucial aspect of one's life as it offers the chance to learn and develop discipline. Students demonstrate their sense of responsibility by exercising autonomy and taking decisive action to propel themselves towards their educational objectives. Attaining success in life is no walk in the park; it comes with its fair share of obstacles and difficulties. Being ready to face challenges is crucial for individuals striving to achieve their aspirations. It guides the growth of a specific character, prompting them to undertake a noteworthy action driven by their emotional perspective. It also captures the atmosphere and embraces various circumstances or obstacles, particularly in an educational setting.

In educational institutions, academic achievement is highly valued as a key measure of students’ progress. Therefore, it is crucial to identify the factors that could impact its performance. According to a study conducted by Narad and Abdullah (2016), the success or failure of an academic institution is heavily influenced by the academic achievement of its students. In their study, Singh et al. (2016) argued that the intellectual achievement of students has a direct impact on a nation's socioeconomic progress. Ali et al. (2013) found that several factors significantly influence academic success. These include age, the socioeconomic position of parents or guardians, and the number of hours dedicated to studying each day.

There is a pressing need for educational institutions to revamp and enhance the teaching-learning process and instructional methods. Students' academic achievement results are a valuable measure of their efficiency and effectiveness in completing tasks. There are various factors that can hinder or delay students from completing their assignments and reaching their full potential as future
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leaders and maritime professionals if their academic performance falls short of expectations. It is important to acknowledge the challenges that students encounter so that we can effectively address any obstacles that may impact their behavior and attitude when it comes to completing school tasks. Graduates possessing resilience, commitment, adaptability, and optimism are highly sought after in the maritime industry. These individuals play a crucial role in fulfilling their responsibilities to their employers, coworkers, families, society, and nation. Maritime students have the opportunity to develop and strengthen these qualities during their entire college journey. They have a strong motivation to finish the marine program, which pushes them to take on more challenging tasks afterwards.

Academic performance is crucial for students to achieve success in the future. Setting and pursuing objectives is crucial for personal growth, as it plays a significant role in achieving good marks. There are various factors that can impact a student's academic performance. The researcher conducted this study to assess the influence of various factors on the academic performance of 3rd Year BSMT students. This will assist learners in identifying key factors and improving their performance. Many college students struggle with their academic performance due to various factors (Ragusa et al., 2023). This trend is also present in Pangasinan Merchant Marine Academy, which is the focus of this study. This will be beneficial for both the respondents and the student population, as they are affected by a range of factors that impact their academic performance.

Socioeconomic status refers to an individual's or a group's position within a social and economic hierarchy. It encompasses various factors such as income, education, occupation, and wealth. Understanding socioeconomic status is crucial as it provides insights into the opportunities and resources available to different segments of society. When examining academic performance, it is crucial to take into account the various demographic profiles that can have an impact. In a study conducted by Kaur and Pathania (2017), it was discovered that certain sociodemographic factors had a significant impact on a college student's study habits. Specifically, age, family income, and education were identified as strong predictors. Considering this perspective, it becomes evident that the way one approaches studying plays a crucial role in determining their academic achievements. Demographic profiles encompass various aspects of individuals' lives, including the influence of familial factors like parenting. Research conducted by Masud et al. (2019) highlights the noteworthy influence of parenting styles on the academic achievement of secondary education students. Given the high expectations some parents have for education, their children often view them as strict authority figures. This perception influences how the children will strive to meet the academic standards set by their parents. Research has shown that the stress experienced within one's family can have a significant impact on their academic performance (Deng et al., 2022). Research has shown that academic stress can have a significant impact on academic performance. However, it is important to note that how individuals perceive and evaluate academic stress can be influenced by their experiences of familial stress and strained relationships with their parents (Garcia & Skrita, 2019).

When parents actively participate in their children's lives, it creates a positive family atmosphere that benefits not only the child's academic performance but also reduces the chances of them facing distress (Otero et al., 2021). In the complex dynamics between parents and their children, their financial situation also plays a significant role. Research conducted by Wiborg and Gratz in 2022 reveals an interesting correlation between the socioeconomic status of families and their children's academic performance. The study compared low-income and high-income families and found that wealth does indeed play a role in shaping a child's educational outcomes. Nevertheless, it should be noted that this study's findings may not apply universally to all children. The research indicates that familial wealth primarily impacts children who struggle academically, rather than those who excel academically. According to a study conducted by Wiborg & Gratz (2022), children who struggle academically often face various stressors that can be alleviated by improving their financial situation. This includes providing them with a conducive study environment, ensuring they have access to proper nutrition, and creating a better household environment. On the other hand, students who excel academically tend to be more resilient and are less affected by these stressors. In addition, the family environment can play a significant role in determining academic performance and potentially even contribute to the development of depression, as suggested by Deng et al. (2022).

Various studies have consistently shown a strong link between socioeconomic status and academic achievement. Various studies have consistently shown that students from more privileged socioeconomic backgrounds tend to achieve higher test scores, grades, and educational accomplishments compared to their peers from less advantaged backgrounds (OECD, 2019). Academic performance has been found to vary across nations and educational frameworks, with some notable differences based on individuals' socioeconomic status. Families with a higher socioeconomic status (SES) often have more financial resources available to invest in their children's education. This allows them to access high-quality schools,
private tutoring, and a variety of enriching activities that can greatly enhance their learning experiences.

Gender is another important factor to consider when examining academic performance. Previous studies have explored gender differences in academic performance, revealing that girls tend to excel in this area (Khesht-Masjedi et al., 2019). Research has shown that gender differences can be attributed to biological factors. For instance, studies have found that female brains tend to have a larger Broca's area, which is responsible for language processing. This larger size is associated with a higher mass of gray matter, which in turn leads to better reading and writing abilities (Kurth et al., 2017). Contrary to popular belief, boys often try to make up for their academic shortcomings by showing more enthusiasm and confidence in subjects that genuinely captivate their attention. However, this doesn't necessarily guarantee improved academic performance, as highlighted by Rodriguez et al. (2020). There are noticeable differences in how individuals of different genders handle academic performance. Research has shown that coping strategies play a crucial role in the relationship between improved academic performance and gender. Women tend to be more proactive in seeking support, avoiding stressors, and finding meaning in their academic pursuits, which contributes to their success. In contrast, men often prioritize problem-solving techniques when dealing with academic challenges (Martinez et al., 2019).

Age is a fundamental aspect of our existence. It is a measure of the time that has passed since our birth. As we grow older, our experiences shape us and contribute to our personal development. Age is not just a number; it carries with it a wealth of life experiences. Students in the 20-24 age range had a reduced chance of achieving high academic standing compared to their peers aged 25-29. The older students reap the rewards of this disadvantaged age group. Australia achieved a similar outcome. The study findings revealed that as individuals age, their academic performance does not suffer. In fact, the research highlighted that engaging in intellectually stimulating activities throughout one's lifetime and possessing certain cognitive skills are both instrumental in promoting academic success in adulthood (Imlach et al., 2017). Abubakar et al. (2012) found a positive correlation between the CGPA of students in Nigeria and their age. A cross-sectional study conducted in Norway found that there is a positive correlation between age and academic performance among students (Bonsaksen et al., 2018). Older students, typically aged 25 and above, tend to possess a greater level of maturity and intelligence. Older students often display a heightened motivation to learn and adopt a more strategic and efficient approach to their studies. They tend to employ more profound and intentional methods rather than relying on superficial ones.

Schools are spread out across the country, with some situated in bustling cities and others nestled in peaceful countryside. It has been noted that schools located in urban areas generally have more abundant resources, including well-trained staff, modern facilities, and strong government support. Recently, educators in Nigeria have expressed growing concerns regarding the importance of enhancing students' enthusiasm for learning and their overall academic achievements. The location and classroom setting of a school play a crucial role in providing students with a high-quality education and facilitating a smooth teaching-learning experience. Additionally, these factors have a positive influence on academic achievement (Lukman, 2022).

Various factors have been found to have an impact on academic performance across different educational levels. These factors have been extensively studied by researchers (Hossain et al., 2022; Tus, 2020; Hayat et al., 2020). Although these factors are frequently examined, it is crucial to take into account other elements like sociodemographic and student-related factors when trying to comprehend the factors that have a significant impact on academic performance. Various factors that affect students' academic performance have been extensively studied. These factors include stress, academic workload, sleep, socioeconomic status, and others. Researchers have classified these factors into two categories: student-related factors and teacher-related factors. As schools strive to enhance academic performance, they have dedicated considerable effort to attaining a specific level of education. However, it is crucial to comprehend the various factors at play in order to assist institutions in creating effective programs and policies that can foster improved academic performance.

Understanding the significance of theoretical assessment grades is crucial in shaping the academic landscape as they offer valuable insights into students' grasp of fundamental concepts in various fields. According to Entwistle (2018), the importance of well-designed theoretical tests cannot be overstated when it comes to fostering deep learning and critical thinking skills. It is crucial to ensure that theoretical assessments are aligned with the intended learning outcomes and educational goals, especially in the ever-changing educational landscape (Biggs & Tang, 2017). In academic evaluations, grading serves as a valuable tool for educators to gauge the effectiveness of their teaching methods and provide students with guidance for ongoing improvement (Black & Wiliam, 2018).
Assessment grades in higher education serve a valuable purpose by evaluating students' cognitive development and guiding academic choices. A recent study has explored innovative methods for conducting theoretical assessments, leveraging technology to create interactive learning environments (Chatti et al., 2019). In order to diversify assessment methods, various online platforms and virtual tools have been incorporated. This ensures that theoretical exams are in line with the digital age and can accommodate the different learning preferences of contemporary students (Brown & Saks, 2017). Educators are eager to enhance the accessibility, speed, and effectiveness of theoretical examinations in order to promote a more thorough understanding of academic subjects. To achieve this, they are embracing technological innovations.

The research landscape is constantly evolving, highlighting the need for theoretical evaluations to adapt and change in response to the ever-changing educational demands. Recent research highlights the importance of enhancing assessment methods to foster a deeper understanding and promote critical thinking skills. Additionally, scholars have emphasized the role of theoretical assessment grades in influencing educational approaches (Entwistle, 2018; Brown & Saks, 2017).

Assessing students' practical skills has become increasingly crucial in today's educational landscape. Practical assessment scores play a vital role in determining students' ability to apply theoretical knowledge to real-world situations. This shift in evaluation methods reflects the evolving nature of educational assessment in recent years. The practical assessment paradigm goes beyond traditional tests, focusing on students' ability to engage in hands-on activities, solve problems, and apply academic concepts in real-world situations (Jones & Penaluna, 2018). Based on a recent study conducted by Boud and Dawson (2018), it has been emphasized that the integration of learning objectives and practical evaluations is crucial in ensuring that students not only gain theoretical knowledge but also acquire the necessary skills for real-world applications. This reflects a shift towards a comprehensive evaluation approach that considers both theoretical understanding and practical skills. The grading of practical exams has become increasingly important in higher education as educators recognize the significance of equipping students with the necessary skills for their future careers. The assessment landscape has witnessed the integration of innovative approaches and technology to effectively assess practical skills (Winstone et al., 2017). Virtual simulations, lab-based experiments, and project-based evaluations have become increasingly popular, offering students a wide range of opportunities to showcase their practical skills (Elen et al., 2019). These advancements help create a comprehensive evaluation process that goes beyond just theoretical understanding and also assesses the practical application of knowledge in real-life situations.

Current research highlights the multifaceted nature of practical assessment grades and their role in fostering more meaningful learning experiences. Practical assessments serve a dual purpose: evaluating students' ability to tackle real-world problems and fostering the growth of critical thinking, collaboration, and communication skills (Biggs & Tang, 2017). When it comes to practical examinations, grading criteria extend far beyond mere accuracy. Evaluators also consider the effectiveness of the application, the ingenuity displayed in problem-solving, and the overall presentation of related abilities. This approach aims to provide students with valuable feedback that encourages ongoing growth and equips them to navigate challenges they may encounter in their future professional endeavors (Boud & Dawson, 2018).

In order to keep up with the latest research and best practices, it is essential for instructors to stay current on practical assessments. This allows them to make informed decisions and provide the most effective instruction to their students. By staying up-to-date, instructors can ensure that they are using the most relevant and reliable methods for assessing student learning. Recent research highlights the importance of conducting practical assessments that accurately evaluate students' preparedness for the challenges of today's workforce. These assessments should be dynamic, authentic, and tailored to the specific context in which they are applied (Elen et al., 2019). The ongoing discussion in educational research highlights the significant role that practical assessment grades play in shaping students' ability to connect theoretical knowledge with real-world situations.

Ebele and Olofu (2017) argue that learning is facilitated by research patterns. Despite diligently following effective study techniques, it can still be challenging for a student to attain academic success. According to popular belief, the way a student approaches their studies has a significant impact on their academic success. By recognizing the diverse learning preferences of students in applied sciences courses, we can ultimately create more impactful learning experiences. In their study, Alavi and Toozanbehjani (2017) found that understanding students' learning preferences can have a positive impact on learning outcomes and contribute to students' personal growth. According to a study conducted by Dalmolin et al. (2018), understanding a student's learning style can greatly enhance their educational experience. Various factors can influence
a student's academic performance, such as their study habits and preferred learning methods. According to a study conducted by Magulod Jr. (2019), the academic achievements of Filipino students are greatly influenced by their study habits and learning styles. Effective learning styles that students find beneficial are described as advantageous, and these advantageous learning styles enhance their academic achievements in college education. Additionally, it has been discovered that certain factors, such as perceptual learning styles and unhealthy study habits, can be indicative of subpar academic performance. Utilizing self-regulated learning strategies while studying has been found to play a crucial role in academic performance (Theobald, 2021; Tus et al., 2020).

When students engage in auditory learning, often with the help of modern information technology systems, they tend to adopt an aural learning style (AS). These learners thrive in an environment where they can engage in lively classroom discussions and receive explanations verbally. However, they may not find visual learning methods as effective for their learning style. People who prefer a tactile learning style enjoy engaging in hands-on activities to solve problems in the classroom. They thrive on building and processing models, as well as participating in practical exercises using laboratory equipment. Thanks to modern information technology systems (GS), learners nowadays prefer group learning approaches and highly value group interaction. They find studying with others to be beneficial and enjoyable. Using the latest equipment systems (KS), students who prefer kinesthetic learning enjoy incorporating games and role-playing into their classroom activities, allowing them to engage their bodies and solve challenges through movement experiences. This particular type of learner experiences significant discomfort from prolonged periods of sitting (Ha, 2021). Individuals who prefer to study independently often opt for a self-directed learning method and, when necessary, utilize modern information technology systems (IS). According to a study conducted by Oka (2021), there are numerous advantages associated with studying alone.

Numan and Hasan (2017) conducted a study to explore the impact of research habits on exam anxiety and academic success. Research suggests that study habits play a crucial role in determining academic success and levels of test anxiety. Students with effective study habits are expected to meet higher standards compared to those with ineffective study habits. Research conducted on test anxiety among secondary students has revealed that heightened levels of examination-related stress can negatively impact academic performance, regardless of the students' initial performance levels (Bentil, 2020). Several other factors are closely connected to academic-related anxiety. One of these factors is how students perceive the importance of exams, as highlighted by Rempel et al. (2021). Another factor is resilience, as discussed by Triguero et al. (2020). Rempel's et al. (2021) study revealed that test anxiety is a significant factor contributing to academic performance pressure. Several factors can influence the level of test anxiety experienced by students. These factors include time management, personal issues, and understanding of the topic. It is important to consider how these elements can impact a student's test-taking experience. Furthermore, the impact of test anxiety can be observed in a person's approach to studying. When students believe that a particular task or exam is crucial for their academic success, they often become fixated on that specific topic. This intense focus can result in heightened test anxiety and, ultimately, lower academic performance (Genç & Sanli, 2023). Examination anxiety can have a detrimental effect in various settings, including the practical application of knowledge. In a study conducted by Kumar (2022), it was discovered that students who experience high levels of anxiety when preparing for exams also tend to struggle when it comes to performing tasks that require output or applying their knowledge in real-world scenarios. In the end, the issue of examination anxiety stems from the burden of stress and its detrimental effects on academic performance.

Maintaining emotional stability is crucial for overall well-being and mental health. When we are emotionally stable, we are better equipped to handle life's challenges and navigate through difficult situations. It allows us to stay grounded and composed, even in the face of adversity. Emotional stability is about finding balance within ourselves.

Student-related factors are often considered to be crucial elements that primarily lie within the student themselves. These encompass a range of factors, such as personal characteristics, beliefs, attitudes, and perspectives related to the act of studying. According to a recent study by Hayat et al. (2020), one's ability to manage emotions and perceptions related to learning has a significant impact on their academic performance. This finding highlights the importance of understanding and addressing these factors in order to improve educational outcomes. The way individuals feel about studying and engaging in the learning process can have a significant impact on their academic performance. These emotional evaluations can either enhance or hinder their overall achievement. The way a student handles their emotions related to learning can significantly impact their academic success. It can either hinder their progress or give them an advantage. Furthermore, the negative impact of stress on academic performance is often overlooked, even though it is
considered a significant factor in both physical and mental well-being (Frazier et al., 2019). Student-related factors have a significant impact on students, going beyond just their academic performance. These factors include burnout experiences, motivation levels, learning styles, and anxiety levels.

Teachers are widely regarded as the most crucial factor influencing students' academic success within the school setting. Garba (2015) suggests that teaching is a collaborative process that involves interaction between learners and teachers. The instructor's competence is determined by their knowledge of the subject matter and their instructional techniques. For students to thrive academically, it is crucial that their teacher possesses the necessary competence. The quality of the teacher-student relationship, while important, cannot compensate for a lack of expertise in the subject matter. Having skilled teachers is crucial when it comes to enhancing student achievement and addressing disparities in academic performance. An effective teacher possesses the ability to assist students in expressing their ideas, facilitating their comprehension of complex concepts, enhancing their communication skills, and providing helpful analogies to support their planning. Teacher-related factors encompass various aspects of educators that have a profound influence on their students. According to a recent study by Wu et al. (2022), researchers have found that teacher-related factors play a crucial role in shaping an individual's teaching skills. Furthermore, these factors have a direct impact on the academic performance of their students in the classroom. The satisfaction of teachers can have a significant impact on the performance of students. This suggests that the conditions in the school may not be ideal for effective learning (Toropova et al., 2021).

One important aspect to consider when evaluating teachers is their level of expertise in the field of teaching. Recent research suggests that the way students perceive their academic career and performance is heavily influenced by innovative teaching methods (Tuazon & Sumadsad, 2022). The study discovered that various factors contribute to student outcomes, including their perception of learning and the quality of teaching they receive. However, a significant emphasis is placed on the impact of skilled teachers who employ effective techniques to enhance student learning. As per research conducted by Soria et al. in 2023, it was observed that teachers who possess exceptional teaching abilities also demonstrate remarkable patience when guiding students through the learning process. Teaching mastery is not the sole factor that impacts a teacher's effectiveness. Research has shown that the level of autonomy a teacher feels, as well as their motivation and dedication, can also have a significant influence on their students and teaching methods. In a study by Hernandez et al. (2020), they found that teacher-induced autonomy support rooted in passionate teaching has led to student's putting high importance to their studies which translates into academic success. Research has shown that when students receive support from their teachers, it positively impacts their learning abilities (Limniou et al., 2021).

The use of hands-on equipment in education has gained considerable attention for its ability to improve student learning experiences. According to scholars like Holstermann et al. (2010), the inclusion of activity-based learning strategies can enhance students' understanding of abstract concepts by providing them with the opportunity to engage with physical objects. This approach is in line with the principles of experiential learning, which emphasize the acquisition of knowledge and skills through practical experience. This idea is supported by the research of Hirça (2013) and Holstermann et al. (2010).

From my perspective, engaging in practical learning not only enhances comprehension of academic concepts but also fosters student involvement and inquisitiveness. Research conducted by Harackiewicz et al. (2016) and Lindholm (2018) highlights the benefits of student engagement in the learning process. When students actively participate, they demonstrate a greater willingness to put in effort, overcome obstacles, and cultivate valuable coping skills. Encouraging students to take control of their own learning can have a profound impact on their education. By allowing them the freedom to explore and discover on their own, they develop a strong sense of ownership over their learning journey. This sense of ownership ignites their curiosity, keeps them engaged, and sparks their interest in the subject matter. As a result, their academic performance is greatly enhanced. A study conducted by Lammina and Chase in 2019 supports this notion.

Furthermore, fostering curiosity plays a vital role in education, as it boosts students' capacity to grasp and remember fresh knowledge, as emphasized by Ruiz-Alfonso & León (2019). Creating a classroom environment that sparks curiosity is crucial for educators to meet the educational needs of the modern era. In today's world, it is essential to prioritize the development of critical thinking skills and adaptability.

In addition, the implementation of hands-on learning fosters a sense of collaboration and interaction among students. This approach enables them to actively engage with the subject matter, exchange their experiences, and cultivate intrinsic motivation. As Von Stumm et al. (2011) suggest, this type of learning also helps to alleviate the fear of failure that students may have. This collaborative environment not only improves learning outcomes but also
The effectiveness of a teacher can be gauged by their ability to understand and adapt information and ideas for their students. The more experienced a teacher is, the greater the potential for significant improvements in student performance. This is because experience tends to enhance competence, leading to higher levels of achievement in children who are taught by experienced educators. According to Alonge et al. (2020), recent graduates are often placed in Senior Secondary School courses without much teaching experience. However, this claim seems to be inaccurate as these new teachers are typically supervised and mentored by more experienced educators. In fact, they are not expected to teach higher level classes until they have gained sufficient expertise. This approach is aimed at ensuring that students receive the best possible education.

In a study conducted by Rodrigues and McKay (2010), experienced instructors were defined as those who have been teaching for five years or more. These instructors possess the ability to effectively engage and maintain students’ attention, efficiently organize their lessons and classrooms, and adapt their teaching methods as needed. The study found a strong correlation between teachers’ years of experience and students’ academic success. This suggests that the teaching skills of instructors play a crucial role in enhancing students’ academic progress. These findings align with the research conducted by Boyd, Grossman, Lankford, Loab, and Wyckoff (2008), who also concluded that greater teaching experience leads to higher academic performance among students. Similarly, DarlingHammond (2009) reported that teachers with over 10 years of experience are more effective compared to those with little or no experience. Furthermore, Ewetan and Ewetan (2015) discovered a significant impact of teachers’ teaching experience on students’ academic performance. In addition, the study found a clear link between teachers’ qualifications and students’ academic achievements. This suggests that by increasing teacher certification, we can improve students’ performance in school. These findings support the research conducted by Akpo (2012), who also found a connection between teachers’ educational qualifications and students’ academic success in JSC Mathematics. Furthermore, the study revealed a significant and positive relationship between teachers’ qualifications and the academic performance of adult learners.

One indicator of student accomplishment that quantifies the capacity of the learner to complete the tasks or activities necessary to complete a course or degree is academic performance. The maritime industry demands specialized knowledge and abilities in seamanship,
navigation, and other areas where academic achievement is seen as a key indicator of student academic results and academic progress. This study aims to investigate a few characteristics that can affect future sailors' performance. According to Velasco et al. (2015), the majority of research highlight how important a role students' attitudes have in their performance since they operate as a catalyst for behavioral intentions based on cognitive responses to their surroundings. Because of the nature of the study, it is essential to comprehend how the issue relates to the field's ramifications. In the maritime industry, the perceived academic performance is reliant on having success in simulator-based trainings and assessment as it has been found that a critical assessment in these type of trainings has translated well into practice and into the development of concepts that can be further understood with great implications to the field (Wiig et al., 2023). Relative performances of skills learned is also an indicator of academic performance and in the maritime field, translated success in maritime simulator trainings has been achieved if students integrated the achievement of motivated goals in their trainings (Hjellvik & Mallam, 2023).

Alternatively, cognitive traits such as intellectual capability play a crucial role in predicting academic success. Several studies have delved into the significance of non-cognitive factors, such as study skills, motivation, study habits, and attitudes towards academic achievement. The findings of the study suggest that having positive research attitudes and cultivating good study habits can greatly influence students' academic success (Sikhwari, 2016).

II. OBJECTIVES
1. To determine the demographic profile of Pangasinan Merchant Marine Academy’s marine transportation students, including age, sex, socio-economic status, and location.
2. To assess the academic performance of students in technical courses by evaluating theoretical and practical assessment grades.
3. To evaluate the effectiveness of student-related factors on academic performance, including study habits, motivation, learning style, academic achievement, and emotional stability.
4. To assess the effectiveness of instructor-related factors on academic performance, including teaching skills, personality traits, and teaching experience.
5. To determine if there is a significant relationship between students' profile and their academic performance.
6. To determine if there is a significant relationship between students’ academic performance and the impact of student-related factors.
7. To determine if there is a significant relationship between students’ academic performance and the impact of teacher-related factors.
8. To provide recommendations based on the findings to enhance the performance of the students.

III. METHODOLOGY
The research design employed for this study was a quantitative-correlational-descriptive approach, aiming to elucidate the relationships between various factors influencing the academic achievement of third-year marine transportation students at Pangasinan Merchant Marine Academy. Through the use of a survey questionnaire and document analysis, the study systematically observed and described demographic profiles, student-related factors, and teacher-related factors, alongside academic performance metrics. This approach facilitated the quantification and analysis of variables such as age, gender, socio-economic status, study habits, motivation, teaching skills, and academic achievement grades.

A comprehensive data gathering procedure ensured ethical considerations were met, with approval obtained from relevant authorities and informed consent obtained from participating students. The reliability of the questionnaire was validated using Cronbach’s Alpha, ensuring the effectiveness of the survey tool in gathering data. Data analysis involved statistical techniques such as mean, standard deviation, and Pearson's $r$ correlation coefficient, providing insights into the relationships between variables and their impact on academic performance. The results of this study are intended to guide recommendations aimed at enhancing the academic performance of marine transportation students at Pangasinan Merchant Marine Academy.

IV. RESULTS AND DISCUSSION

Demographic Profile of the Respondents. The study's demographic profile of respondents indicates a significant concentration of participants in the 19-21 age range, reflecting a focus on understanding factors influencing academic performance among younger individuals. This emphasis is reinforced by the predominance of males in the sample, highlighting the historically male-dominated nature of the maritime industry. Socio-economically, the study primarily captures the perspectives of students from lower socioeconomic backgrounds, with a notable majority classified as poor or
low-income. Geographically, a majority of respondents reside outside Dagupan City, suggesting a diverse representation that underscores the influence of regional factors on educational outcomes. Overall, the findings underscore the importance of considering age, gender, socio-economic status, and location when understanding the challenges and opportunities faced by students in the context of academic performance. This is parallel to the study of Imlach et al. (2017) that students between the ages of 20 and 24 and those between the ages of 25 and 29 were less likely to do well in school. BSMarE graduates were dominated by males, 24 years and older (Galicia, 2021). The current age requirement should be adjusted from 16-22 to 18-24 years old. Those from the STEM track and the maritime high school are best suited for the maritime courses (Gruspe-Taberdo, 2017).

**Student’s Academic Performance in Technical Courses.** The examination of academic performance demonstrates a favorable trend in theoretical and practical evaluations, as well as a broad distribution of marks.

**Level of Effectiveness of Student-Related Factors to the Academic Performance of the Students.** Students perceive their study habits, such as regular study time, reviewing lecture notes, and utilizing lecture notes effectively, as impactful for academic success. These habits alleviate academic anxieties and aid in information retention, aligning with existing research. Respondents rate motivational factors, like feeling motivated, setting clear goals, and receiving support, as highly effective in shaping academic success. Motivation contributes to a positive learning attitude and consistent effort towards academic goals. Students believe their preferred learning styles significantly influence academic performance, enhancing confidence and overcoming academic challenges. Understanding of course materials, class participation, and efforts being acknowledged are perceived as indicative of academic performance. Managing emotions, particularly experiencing positive emotions when efforts are recognized, contributes significantly to academic performance. Emotional stability fosters resilience and a positive learning environment, crucial for academic success.

**Summary Table on the Effectiveness of Student-Related Factors to the Academic Performance of the Students**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Average</th>
<th>Descriptive Rating</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Habits</td>
<td>3.21</td>
<td>Agree</td>
<td>Effective</td>
</tr>
<tr>
<td>Motivation</td>
<td>3.34</td>
<td>Strongly Agree</td>
<td>Very Effective</td>
</tr>
<tr>
<td>Learning Style</td>
<td>3.23</td>
<td>Agree</td>
<td>Effective</td>
</tr>
<tr>
<td>Academic Achievement</td>
<td>3.23</td>
<td>Agree</td>
<td>Effective</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>3.20</td>
<td>Agree</td>
<td>Stable</td>
</tr>
</tbody>
</table>

**Level of Effectiveness of Instructor-Related Factors to the Academic Performance of the Students.** The findings indicate that teaching skills, encompassing a teacher's understanding of course content, active student engagement, effective use of equipment, quality teaching, and varied teaching tools, significantly contribute to academic performance. Personality traits, including teacher enthusiasm, approachability, patience, and encouragement, are also perceived as highly effective in positively influencing student outcomes. Additionally, teaching experience, demonstrated through background knowledge, credibility, years of teaching, referencing various sources, and simplifying complex topics, is seen as very effective in impacting academic performance.

**Summary Table on the Level of Impact of Instructor-Related Factors to the Academic Performance of the Students**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Average</th>
<th>Descriptive Rating</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Skills</td>
<td>3.26</td>
<td>Strongly Agree</td>
<td>Very Effective</td>
</tr>
<tr>
<td>Personality Traits</td>
<td>3.26</td>
<td>Strongly Agree</td>
<td>Very Effective</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td>3.3</td>
<td>Strongly Agree</td>
<td>Very Effective</td>
</tr>
</tbody>
</table>

**Significant Relationship between the Students’ Profile and Their Academic Performance.** A research on the important correlations between students' demographic profiles and academic achievement, on the other hand, found non-significant associations based on age, gender, economic position, and location.

**Summary Table on the Effectiveness of Instructor-Related Factors to the Academic Performance of the Students**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Average</th>
<th>Descriptive Rating</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Skills</td>
<td>3.26</td>
<td>Strongly Agree</td>
<td>Very Effective</td>
</tr>
<tr>
<td>Personality Traits</td>
<td>3.26</td>
<td>Strongly Agree</td>
<td>Very Effective</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td>3.3</td>
<td>Strongly Agree</td>
<td>Very Effective</td>
</tr>
</tbody>
</table>
Factors Affecting the Academic Performance of Pangasinan Merchant Marine Academy’s Bachelor of Marine Transportation Students

One-Way Analysis of Variance and Chi-square Tool Results between Student Profile and Academic Performance

<table>
<thead>
<tr>
<th>PROFILE</th>
<th>ACADEMIC PERFORMANCE</th>
<th>Decision</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f-value/*chi square</td>
<td>p-value</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.707</td>
<td>0.548</td>
<td>Accept Ho</td>
</tr>
<tr>
<td>Sex</td>
<td>0.091</td>
<td>0.763</td>
<td>Accept Ho</td>
</tr>
<tr>
<td>Economic Status</td>
<td>0.581</td>
<td>0.628</td>
<td>Accept Ho</td>
</tr>
<tr>
<td>Location</td>
<td>0.399</td>
<td>0.528</td>
<td>Accept Ho</td>
</tr>
</tbody>
</table>

Note: @0.05 level of significance

**Significant Relationship between the Students’ Academic Performance and the Level of Impact of Student-Related Factors.** Study habits, motivation, and learning style showed no significant correlation with academic achievement, suggesting that these factors may not strongly predict academic success in this context.

Conversely, emotional stability demonstrated a statistically significant weak negative correlation with academic performance, indicating that students with lower emotional stability may, on average, achieve lower grades. However, the strength of this correlation was modest, emphasizing the need for cautious interpretation.

**Pearson Correlation Coefficient Results Between Student-Related Factors and Academic Performance**

<table>
<thead>
<tr>
<th>ACADEMIC PERFORMANCE</th>
<th>R-value</th>
<th>p-value</th>
<th>Decision</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Habits</td>
<td>0.056</td>
<td>0.465</td>
<td>Accept Ho</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Motivation</td>
<td>0.018</td>
<td>0.825</td>
<td>Accept Ho</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Learning Style</td>
<td>0.008</td>
<td>0.909</td>
<td>Accept Ho</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Academic Achievement</td>
<td>0.0114</td>
<td>0.136</td>
<td>Accept Ho</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Emotional Stability</td>
<td>-0.182</td>
<td>0.0168</td>
<td>Reject Null</td>
<td>Significant</td>
</tr>
</tbody>
</table>

**Significant Relationship between the Students’ Academic Performance and the Level of Impact of Teacher-Related Factors.** Despite the perceived effectiveness of teacher-related parameters, including teaching skills, personality traits, and teaching experience, the Pearson correlation coefficients indicated weak negative correlations that were not statistically significant. This unexpected finding suggests that higher effectiveness in these instructor-related factors is paradoxically associated with higher academic performance, likely due to the reversal introduced by the grading scale where lower points correspond to higher grades. Consequently, no conclusive relationship could be established between teaching skills, personality traits, teaching experience, and academic achievement based on this analysis.

**Pearson Correlation Coefficient Results between Teacher-Related Factors and Academic Performance**

<table>
<thead>
<tr>
<th>ACADEMIC PERFORMANCE</th>
<th>R-value</th>
<th>p-value</th>
<th>Decision</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Skills</td>
<td>-0.016</td>
<td>0.835</td>
<td>Accept Ho</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Personality Traits</td>
<td>-0.017</td>
<td>0.825</td>
<td>Accept Ho</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td>-0.025</td>
<td>0.741</td>
<td>Accept Ho</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

V. CONCLUSION

The study’s demographic analysis focuses on assessing academic achievement among younger, primarily male individuals from lower socioeconomic origins who live outside of Dagupan City. This emphasizes the need of taking into account age, gender, socioeconomic level, and

https://dx.doi.org/10.22161/ijels.92.8
regional considerations when addressing difficulties and possibilities in the marine sector, reflecting the industry's male-dominated nature and the impact of varied origins on education outcomes.

Academic performance in technical courses is trending positively, indicating that students are generally performing well across various assessment criteria, creating a solid basis for future maritime industry professionals. The strong performance indicates that students are obtaining the knowledge and skills required to maintain safety standards, operational efficiency, and industry competitiveness.

While student-related factors such as study habits and motivation have no meaningful relationship with academic success, emotional stability does have a statistically significant weak negative link. This shows that traditional measures of academic success may fail to represent the intricate interplay between student characteristics and performance in the maritime sector. Students regard instructors' teaching skills, personality attributes, and experience as influential, yet there is no substantial correlation with academic success, highlighting the necessity for a complete approach to student development and assistance in maritime education.

Thus, institutions should implement mentorship programs geared toward younger, male, and lower-income students, offering both academic help and personal support. Workshops on study skills, time management, and financial literacy should be organized, taking into account regional aspects to ensure relevance. Second, it is recommended to improve practical learning experiences in technical courses by adding hands-on training sessions with simulators or real-world equipment to reinforce theoretical concepts and build necessary practical skills for the maritime industry. Third, incorporating study skill workshops and mental health programs can meet varied learning styles while also promoting emotional well-being, which improves learning results. Investing in professional development programs for instructors is also advised, as it fosters a supportive teaching atmosphere and encourages ongoing learning. Furthermore, specialized support programs for students should be designed to address emotional stability, which may improve academic performance in the maritime sector. Finally, more research into the elements that contribute to academic achievement in technical courses within maritime education is recommended, including teaching approaches as well as socioeconomic, cultural, and environmental effects, to guide ongoing institutional reform initiatives.

VI. ACKNOWLEDGEMENT

I extend my deepest gratitude to all those who have contributed to the completion of this research. First and foremost, I would like to express our sincere appreciation to the faculty members and administrators of Pangasian Merchant Marine Academy for their invaluable support and guidance throughout the duration of this study. Their expertise and insights have been instrumental in shaping the direction of our research.

I am also indebted to the students who participated in this study, for their time, cooperation, and willingness to share their experiences and perspectives. Without their active involvement, this research would not have been possible.

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This study stands as a testament to the collective effort and collaboration of all those mentioned above, and we are truly grateful for their contributions.

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