

# Maritime Students' Interest towards Enrolled College Degree and Experienced Program Difficulty

**Jake M. Laguador**

Lyceum of the Philippines University, Batangas City, Philippines  
jmlaguador@lpubatangas.edu.ph

**Asia Pacific Journal of  
Maritime Education**

Vol. 5, 48-54

June 2019

P-ISSN: 2423-2033

E-ISSN: 2467-513X

apjme@lpubatangas.edu.ph

www.apjme.apjmr.com

**Abstract** - *This study aimed to determine the level of interest of the First Year Maritime Students towards their enrolled college degree and how they differed in terms of program difficulty. Descriptive type of research was utilized in the study with 126 respondents. Result showed that they have expressed higher level of interest based on the affective domain of learning followed by psychomotor. Findings also revealed that those maritime students with low level experienced of program difficulty have expressed higher level of interest towards the maritime program in terms of cognitive domain; while those maritime students with high level of interest based on affective domain towards the maritime program are also those who experienced higher level of program difficulty. Certain level of students' interest towards maritime program describes how far they could overcome the difficulties of their chosen college degree and the findings suggest that the first year students need more social orientation and development of strong personality and resiliency about the maritime profession.*

**Keywords:** *cognitive, affective, psychomotor, maritime, program difficulty*

## INTRODUCTION

The driving force on eagerness of the students to surpass the challenges of a certain college degree can be associated on the level of their interest towards the program. Interest is an intrinsic motivational factor that stimulates the enthusiasm of a person to perform better or more than what is expected of him to accomplish. Expectancy Theories connect thought and motivation and are explanations of behaviour that focus on people's expectations of success in reaching a goal and their need for achievement as energizing factors (Miranda, 2008). The value of what the students are learning provides higher motivation and gives strong foundation to perform their responsibilities and work harder in achieving their goals. Maritime program in the Philippines is one of the well-known college degree for male students who aspire for higher salaries while working aboard. Based on the enrolment data from the Commission on Higher Education for 2018-2019, Maritime program has 87,960 enrollees or 2.7 percent from pre-baccalaureate to doctoral program as of June 30, 2019 out of 3,212,542 enrolled students in all levels and programs of all HEIs in the Philippines which makes it as 9<sup>th</sup> discipline group with the highest number of enrollees. There are 17, 634 or 2.35 percent maritime graduates in 2018 out of 751,310 graduates in all disciplines. There is a decreasing number of enrollees

almost half for 2019 in Maritime program for the last five years from its highest peak of enrolment during Academic Year 2014-2015 with 161,229 total number of enrollees. Maritime Industry is considered one of the largest industries in the world which needs good number of qualified and highly skilled graduates to sustain the productivity and efficiency of all economic activities involving sea transports of people and goods. In order to do that, Higher Education Institutions are called to provide educational services and curricular offerings which meet the demands of the Maritime Industry Authority (MARINA) in the Philippines as well as the International Maritime Organization (ILO).

The role of HEIs in developing the skills, knowledge, values and character of the future seafarers and maritime professionals is very significant to the achievement of the main goal of safety and security at sea. Agena et al. (2017) emphasized that Maritime education institutions are considered important training ground of future seafarers where they should have the resources and practices to deliver quality instruction and relevant services towards efficient and effective implementation of STCW and ILO requirements. The study of Manuel (2005) examined the nature of the safety culture as it relates to attitudes and behavior and analyzes the importance of the affective domain

of education to the maritime industry. The preparation of the maritime students during college defines their future success in the maritime profession. Identifying the interest of the learners as important factor of success in college is described in this study. Schiefele (1991) defined interest as a content-specific motivational characteristic composed of intrinsic feeling-related and value-related valences. Ainley et al (2002) emphasized that specific patterns of individual interests and how they influence student engagement with learning have not been well researched. As well as the need to identify students' specific patterns of individual interests, it is important to determine how individual interests at different levels of generality might differentially influence student learning. Students' interest in learning are associated with students' anxiety to learn. Interest is fundamental in any individual's choice task. A characteristic feature of interest is a manifestation of a different preference toward actions, events or plans. A student's interest in academic achievement will induce him to behave and act in a certain way towards his studies (Ogbuanya & Owodunni, 2013). Identifying the level of interest of the students to pursue a certain program of study may help explain the succeeding behaviour on developing the positive or negative attitude of the students as related with their academic life (Ramirez et al. 2014). Interests may vary also according to personal experiences (Smith, 2002).

Meanwhile, according to one study that students with high level of interest towards their enrolled degree program might develop good study habits (Laguador, 2013a). High level of degree program interest enhances the motivation of the students to learn more about the subject and they exert extra miles to know better some of the opportunities of the profession. Students are looking towards a future direction which leads them to a brighter side of the challenges rather than its negative impact to their behavior. Yeager and Dweck (2012) believed that resilience—or whether students respond positively to challenges is crucial for success in school and in life. Study skills encourage areas such as work attitudes, time management, homework strategies and test-taking skills (Ramirez & Dizon, 2014). Levels of students' interest towards their degree program may vary from time to time due to different degrees of experiences encountered by the students themselves. An alarming observation of Filipino students reveals that they excel in knowledge acquisition but fare considerably low in lessons requiring higher order thinking skills (Patena & Dinglasan, 2013). De Mesa

(2012) stated that students must study harder and accomplish all the requirements each course has and through these responsibilities will test their determination and zest.

Level of program difficulty is also explored on this study to provide emphasis on how maritime students experienced some challenges in general which can affect their level of interest towards the maritime program. Andrieux, Danna and Thon (2012) believed that if the task difficulty is lower or higher, learning would deteriorate because the task is either too easy or too difficulty. Fulmer et al. (2015) noted that there is extensive theoretical support for moderate difficulty as a favorable condition for engagement, deep cognitive processing, and learning.

Interest like motivation could drive someone to pursue their degree programs as they plan it to finish in specified time. Since due to low or lack of interest, students could have thought of either dropping the enrolled courses or even stop schooling. It is an important factor to be considered when admitting the students in a certain program of study. Identifying this level may somehow help the students and their parents to address some issues concerning students' interest. Making parents aware of the interests of their children towards their enrolled program may provide them basic information and better understanding on how they will treat and advice their children, while nourishing and challenging the interests of the students in a concerted effort and responsibility for the university.

The study anchored the interest of the students in terms of the importance and objectives of having knowledge (cognitive), skills (psychomotor) and attitude (affective) which are significant in their future employment. The cognitive aspect of interest includes the investigation of student potential for success and knowledge related work responsibilities and perceived complexities of the profession. Meanwhile, affective aspect explores on acquiring some level of appreciation of the profession as well as the fulfillment of their aspirations and development of work values and personality. Furthermore, the psychomotor aspect includes the perceived participation in professional organizations and application of learning from the program.

But beyond the end result of acquiring those purposes at the end of their college years is the essence of their interest and detailed process on how they obtained proficiency and expertise in certain course or lesson; how they widen their critical and analytical thinking in solving complex mathematical

problems; how they formulated solutions and decisions to a given case for analysis and how they developed the right attitude towards the accomplishment of all hardships and trials of college education just to prepare themselves in a more challenging corporate world (Laguador, 2013b).

The maritime education perspective of this study brings into the reality of careful selection of degree program in college which will translate into meaningful outcomes based on interest of the learners. The Maritime industry needs graduates who are resilient, committed, adaptable and optimistic in performing their duties and responsibilities for their employers, co-workers, families, society and country. These traits can be developed and strengthened within the entire college years of the maritime students. The motivation they have towards the end the maritime program helps them to pursue higher obligations in the future. Identifying the strengths and weaknesses of the learners provides baseline information for the HEIs on how they can develop strategies to enhance the confidence and self-esteem of the students leading to a better appreciation of the maritime program.

### OBJECTIVES OF THE STUDY

This study aimed to determine the level of interest of the Maritime First year students towards their enrolled degree/program. Specifically, the study sought to determine the profile of the respondents in terms of program difficulty; to determine the level of interest of maritime students towards their enrolled degree program in terms of three learning domains: cognitive, affective and psychomotor; to test the difference in the level of students' interest towards their enrolled degree program when grouped according to level of program difficulty.

### METHODS

Descriptive type of research design was utilized in the study. The 126 randomly selected respondents were included in the study from Marine Engineering and Marine Transportation of one private maritime academy in the Philippines.

The survey questionnaire utilized in the study was adapted from Ramirez et al. (2014) which was divided into three sub-variables based on the three domains of learning: cognitive (1-5), affective (6-10) and psychomotor (11-15) to identify the level of the students' interest towards their enrolled degree program. The questionnaire was also pilot-tested to the first year engineering students who were not included in the study to test its reliability obtaining the

Cronbach Alpha of 0.875 which falls within the rule of thumb of 'good' which also signifies that the instrument is acceptable and valid for use.

The questionnaires were personally administered by the researchers during the 2<sup>nd</sup> semester to the randomly selected maritime engineering and marine transportation students. The researchers asked the permission first from the dean of Maritime Education to conduct the study. General Education faculty members were also asked to assist the researchers in the administration of the questionnaires to the first year students. The researchers requested 10 minutes of the time before dismissal to explain the purpose of the study and the confidentiality agreement. The respondents are informed regarding the main goal of the research and they were also informed regarding their voluntary participation in the study. Only those students who are willing to participate were given the questionnaire.

Frequency count and weighted mean are the descriptive statistics used to analyze the result of the data gathered while analysis of variance was used to test the significant difference on interest of the students when grouped according to level of program difficulty. The study used ANOVA because the set of data is normally distributed. The given scale was used to interpret the result of the survey: 3.50 – 4.00: Very High (VH); 2.50 – 3.49: High (H); 1.50 – 2.49: Low (L); 1.00 – 1.49: Very Low (VL).

### RESULTS AND DISCUSSION

**Table 1. Degree of Program Difficulty as Experienced by the Maritime Students**

Degree of Difficulty	f	%
High	35	27.8
Average	47	37.3
Low	44	34.9
Total	126	100

Table 1 presents the degree of program difficulty as experienced by maritime students. The level of difficulty of maritime program is found average level among the 37.3 percent of the student-respondents while 34.9 percent of them experienced it as low and 27.8 percent of them which comprised the least group of high level. This finding is contrary to the result of Ramirez et al. (2014) where more than half of the engineering students found the program highly difficult. According to the study of Laguador (2013), getting high grades in engineering is considered

difficult, therefore, they have to exert more effort in studying their lessons to prepare for major examinations. Maritime students have experienced the first year level of maritime curriculum with low to average level of difficulty where some of the courses came from general education and only few professional courses are offered yet in lower level. Meanwhile, Barcelona et al. (2015) believed that Maritime curriculum in the Philippines emphasizes the alignment of learning outcomes to the desired qualification criteria of maritime industry that truly influences the quality of student learning through the implementation of outcome-based education. The program difficulty being experienced by the maritime students can be associated on how they were prepared during their senior high school most especially those related to general education subjects. Garcia et al. (2015) noted that preparing the students for higher level of professional education in college makes them more confident on accepting responsibilities and challenges.

Table 2 presents the interest of maritime students towards their enrolled degree Program in terms of learning domains. Maritime students have very high level of interest in the program in terms of discovering their full potential as one of the future maritime professionals (3.52) followed by having high level of interest in term of encountering some stimulating

problems relevant to the practices of maritime (3.28) and widening their knowledge and skills most suitable for their future work responsibilities (3.19). Meanwhile, they still have higher level of interest in terms of learning how to become innovative and creative (3.07) and exploring the benefits and complexities of maritime program (3.03) which the least weighted mean scores. The computed composite mean score of 3.22 implies that the students have higher level of interest in maritime program in terms of cognitive domain of learning. Alcantara et al. (2015) affirmed from their study that Maritime students belong to determination category where they try their best to have high/good grades for future employment, to become a ship captain in the future no matter how hard it is and to have their own set of objectives and direction to achieve a better future. On the other hand, from the result of study of Ramirez et al. (2014) noted that engineering students have higher level of interest in learning to become innovative and creative and in widening their knowledge and skills most suitable for their future work responsibilities. In all levels of college life, adjustments need to be made. Students are expected to have varying responsibilities in both school and personal life (De Mesa, 2012) that could be an important aspect of their interest towards their degree program.

**Table 2. Interest of Maritime Students Towards the enrolled Degree Program in terms of Learning Domains**

<b>Cognitive</b>	<b>WM</b>	<b>VI</b>	<b>Rank</b>
1. Discover my full potential as one of the future maritime professionals	3.52	VH	1
2. Widen my knowledge and skills most suitable for my future work responsibilities	3.19	H	3
3. Explore the benefits and complexities of maritime program	3.03	H	5
4. Encounter stimulating problems relevant to the practices of maritime	3.28	H	2
5. Learn how to become innovative and creative	3.07	H	4
<b>Composite Mean</b>	<b>3.22</b>	<b>H</b>	
<b>Affective</b>			
6. Fulfil my dreams and aspirations on maritime profession	3.58	VH	1
7. Experience different challenges towards a better appreciation of maritime profession	3.26	H	4
8. Develop a character of a globally competitive professional	3.38	H	2
9. Acquire appropriate work values and attitude suitable for maritime	3.29	H	3
10. Develop resiliency and strong personality which can be useful in facing difficulties of maritime program	3.25	H	5
<b>Composite Mean</b>	<b>3.35</b>	<b>H</b>	
<b>Psychomotor</b>			
11. Conduct investigations/researches on maritime topics	3.17	H	5
12. Meet and communicate with maritime professionals who can share their expertise	3.18	H	4
13. Participate in the activities of the organizations related maritime	3.24	H	3
14. Work with members of a team who have common objectives and interest.	3.61	VH	1
15. Utilize the skills that I could acquire from maritime program	3.41	H	2
<b>Composite Mean</b>	<b>3.32</b>	<b>H</b>	

Velasco et al. (2015) pointed out that identifying the learning style of the students provides better understanding for teachers who facilitate the teaching and learning activities in the classrooms. Flores et al. (2015) and Mendoza et al. (2014) believed that the learning environment also contributes to the motivation of the students to perform their tasks and actively participate in all school related activities.

The maritime students have very high level of interest in terms of fulfilling their dreams and aspirations on maritime profession (3.58) and with high level on developing the character of globally competitive professional (3.38) and acquiring appropriate work values and attitude suitable for maritime (3.29). Meanwhile, they still have high level of interest in the maritime program in terms of experiencing different challenges towards a better appreciation of maritime profession (3.26) and develop resiliency and strong personality which can be useful in facing difficulties of maritime program (3.25) with the least mean scores. The computed composite mean score of 3.35 implies that the maritime students have high level of interest towards the maritime program in terms of affective learning domain. Maritime students are having good signs of better opportunities working abroad because of the nature of the job among seafarers as well as the salaries and compensation being provided to the officer level position. They keep on holding their dreams to become one of the ship captains and chief engineers someday. Global competence has been part of their motivation to be developed in order to satisfy the demands and requirements of international qualification framework. Orence and Laguador (2013) noted that employment opportunities may come on their way as they really prepared to become assets of their respective companies in the future.

Furthermore, they have very high level of interest in the maritime program in terms of working with members of a team who have common objectives and interest (3.61) and with high level of interest in terms of utilizing the skills that they could acquire from maritime program (3.41) and participating in the activities of the organizations related maritime (3.24). Meanwhile, they still have high level of interest in terms of meeting and communicating with maritime professionals who can share their expertise (3.18) and conducting investigations and researches on maritime topics (3.17) obtained the least weighted mean scores. Maritime students are being prepared to have higher level of technical skills to become seafarers but they cannot see themselves at the moment as researcher or

as educator. Understanding the requirement of shipping companies is one way of preparing the mindset of the students in developing their skills and values most suitable to the workplace and environment of maritime profession. Manrique et al. (2018) noted that cadetship of most shipping companies follows certain steps in their recruitment that includes the qualifying exam, grade requirements, series of interviews, physical condition with medical examination. Only a few number of students made it to the top while some students passed the qualifying examination and the interviews but did not pass the medical requirement.

Interest in the degree program is considered relevant to other school related factors which can sometimes cause negative implication if not addressed in early stage. Analysis of students' subject interest according to Newton (2013) was considered in relation to course drop-out, qualification attainment and prior attainment which findings suggest that a relationship exists between how students express their attitude towards specific descriptions of course content and assessment objectives and their subsequent performance on those courses. Students who reported a low level of interest in the specific contents of their chosen courses appeared more likely to drop out of that course mid-way through the year or fail to pass the course.

**Table 3. Difference in the Interest of the Maritime Students when grouped according to level of program difficulty**

	low	average	High	F-value	P-value
Cognitive Domain	3.43	3.18	3.06	4.218*	0.015
Affective Domain	3.21	3.33	3.51	3.047*	0.026
Psychomotor Domain	3.28	3.37	3.31	0.821	0.075

\*Significant at 0.05

Table 3 reveals the difference in the interest of maritime students when they were grouped according to degree of program difficulty. Result showed that significant difference exists on the cognitive and affective domains as denoted by the computed p-values of less than 0.05 alpha level. This signifies that those maritime students with low level experienced of program difficulty have expressed higher level of interest towards the maritime program in terms of cognitive domain; while those maritime students with

high level of interest towards the maritime program in terms of affective domain have also higher level of program difficulty. Meanwhile, there is no significant difference on the responses of three groups in terms of psychomotor domain as denoted by the computed p-value of greater than 0.05 alpha level. Students with high cognitive ability have experienced lower level of program difficulty which is true among the maritime students as they showed higher level of interest towards the maritime program. Those students with higher level of affective domain as defined by their interest toward the programs are those high level of emotional attachment to the maritime program and they keep on thinking how they can surpass all the challenges of the maritime program. Sometimes they get easily affected by difficult situations. Meanwhile, the study of Arellano et al. (2017) found out that those low performing students have significantly higher needs in terms of developing their confidence compared to high performing students as well as in cognitive leadership capability. According to Newton (2013), students' attitudes towards the extrinsic worth of a course appeared to have a complex but definite relationship to the probability of their course success. In particular, this appears to be potentially negative, if students' attitudes towards the extrinsic value of a course are combined with below average attitudes to assessment objectives.

### CONCLUSION AND RECOMMENDATION

Three (3) out of ten first year maritime students encountered high level of difficulty in the program. They have expressed very high level of interest according to cognitive domain in terms of discovering their full potential as one of the future maritime professionals and also very high level in affective domain in terms of fulfilling their dreams and aspirations on maritime profession; while on psychomotor domain, they showed very high level of interest in terms of working with members of a team who have common objectives. Low level of interest in terms of cognitive domain towards the maritime program is manifested among those students with high level of program difficulty while those with high level of interest in terms of affective domain towards maritime program is manifested among students with high level of program difficulty.

The maritime department may focus its co-curricular activities in designing programs that would explore the benefits and complexities of maritime program in relation to the attainment of student outcomes and core values of the university. The

program offering may also consider developing some learning activities that would transform and shape the character of the students to become innovative and creative in offering solution to the challenging goal of the maritime profession. They must understand the complexities and experience the difficulties in order for them to relate the theories learned to the actual application in real work environment. So that they could internalize the abstract meaning of concepts and increase awareness on how to appreciate the difficulties of the maritime program.

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