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ABSTRACT

The study assessed on the Emotional Intelligence and its Impact to the Performance of Deck and Engine Cadets of the NSU-CME who underwent shipboard training. It examined the two programs: the Bachelor of Science in Marine Transportation and Bachelor of Science in Marine Engineering for SY 2012-2013 and 2013-2014. The study used quantitative approach utilizing the existing data submitted by deck and engine cadets of the NSU-CME after undergoing shipboard training. The instrument used in assessing the performance of the cadets was developed by NSU-Maritime Education. This was revised on January 5, 2004 after the recommendations made by Det Norske Veritas (DNV), the external quality assurance auditors for the maritime programs of NSU. Since then, the CME utilized this instrument in assessing the performance of deck and engine cadets. Recently, after the CHED and MARINA OBME evaluation, they found out that these data were not analyzed. The researcher takes the initiative in analyzing the data of the two programs: 1) BSMT with 35 cadets; and 2) BSMarE with 29 cadets for the SY 2012-2013 and 2013-2014 who underwent twelve months (12) shipboard training. Data were tallied and coded accordingly. Guided by the framework of Boyatzis and Goleman's emotional intelligence model, components of the instruments were categorized according to the four areas of competencies of the EI namely, a) self-awareness, b) self-management, c) social awareness, and d) relationship management. This representation shows that emotional intelligence framework help in categorizing the soft skills identified by NSU-CME. Based on these classifications of competences in the EI framework and soft skills are connected with each other. Thus, EI framework can be used to analyze the data. The BSMT cadets are more aware on themselves than BSMarE cadets while they are on shipboard training. The BSMarE cadets need direct supervision and specific instructions from their ship officers to perform tasks effectively while they are on the shipboard training. The BSMT and BSMarE cadets have strong self-management while they are on the shipboard training, have strong social awareness and show positive behavior that contributed to a favorable work and social climate on board while BSMT cadets are more cooperative to perform tasks together with superiors, subordinates and fellow workers than BSMarE cadets while they are on shipboard training. However, BSMarE cadets are rated with a mean of 2.67 interpreted as fair in terms of their capabilities to perform tasks independently as ship officer. This implies that the BSMarE cadets need to have a close supervision and strong assistance from the officers in performing their tasks while they are on the shipboard training. The program educational objectives for both BSMT and BSMarE expressly stipulate that both programs aims to provide and equip students with knowledge, understanding, proficiencies, skills, competences, attitudes, and values. On the same manner, graduates in these programs shall acquire knowledge and competencies to: a) work in a multi-cultural and/or multidisciplinary team; b) understand professional and ethical responsibilities; c) communicate effectively in oral and written English; d) understand the impact and implications of various contemporary issues in global and social context of the profession; and e) design research and analyze data using appropriate research methodologies. The curriculum of these two programs in terms of General Education subjects are revised in effect with the implementation of the K to 12 program in 2016. While the instructional approach for these programs shall be learner-centered and outcomes-based to prepare the students for a career at sea and effectively carry out the tasks, duties and responsibilities of an Officer-In-Charge of a Navigational Watch (Deck) and Engine Watch (Engine). The results of this data analysis will be used in improving the curriculum and instruction for the College of Maritime Education of Naval State University.

KEYWORDS: Emotional Intelligence; Performance of Maritime Deck and Engine Cadets; Shipboard Training; Soft Skills.

INTRODUCTION

Emotional Intelligence competencies are considered soft skills and are just as good indicator of job performance as traditional job qualifications (hard skills). Hard skills are the technical abilities and knowledge that one possesses, whereas soft skills are those personal attributes and interpersonal qualities that are intangible. Although soft skills are important to recognize and improve, hard skills are critical on the job as well (Robles 2012). It is in this concept that the NSU-CME is prompted to understand the importance of soft skills in the curriculum of maritime education. These soft skills should be incorporated in the classroom instruction in order to prepare NSU-CME students for their new life at sea. Both soft skills and hard skills should be integrated to develop a well-rounded CME graduate.

These EI competencies are essential to counter mental, physical, and emotional stress during seagoing experience. Accordingly, once students develop these EI competencies within the academic years in the university will help them prepare for a new life at sea and eventually lead them to be successful in their chosen career. This imperative prompted the author of this paper to analyze the EI competencies were currently being assessed in the shipping industry, to determine the gaps in the NSU-CME curriculum, and to enhance delivery of instruction in developing the EI competencies of the cadets. What are the EI competencies needed to improve the performance of the cadets in shipboard training? Are these EI competencies evident in the shipboard training? Are these EI competencies incorporated in the classroom instruction?

The information above motivated the researcher to conduct this study in order to analyze and strengthen maritime cadets' emotional intelligence thereby increases their performance in shipboard training and minimize problem behavior among maritime cadets in their real life at sea. The findings of this study served as the basis for the revision of the "Performance Appraisal of the NSU-CME Deck and Engine Cadets" during shipboard training by aligning the same to Boyatzis and Goleman Emotional Intelligence Model and in the development of intervention activities in instruction.

THEORETICAL BACKGROUND

To expound the ideas and thoughts expressed in this study, the researcher divided the literature review into five parts: first Emotional Intelligence (EI) theories and models; second, the relevance of EI competencies to Republic Act 10533 (K to 12 Enhanced Basic Education Act of 2013); third, the Standard of Training, Certification, and Watch keeping of Seafarers 1978 as amended in Manila 2010; fourth, the CHED Memorandum Orders; and fifth, the implication of EI competencies to 21st century workforce.

Emotional Intelligence Defined

The theory of emotional intelligence (EI) is very young in its development. Although the construct had been briefly used before the 1990's, it did not become well known until Salovey and Mayer provided a definition that Daniel Goleman used in his popular book entitled *Emotional Intelligence: Why it can matter more than IQ* (Ashkanasy & Daus, 2005). "According to Mayer and Salovey, EI entails the ability of an individual to monitor his or her emotions and those of others, to discriminate among them, and to use this information to guide his or her thinking and actions" (Nafukho, 2009, p. 673). Most writers interchange the term Emotional Quotient (EQ) and Emotional Intelligence (EI). To make distinction between EQ and EI, the former is considered as innate potential while the latter represents a relative measure of a person's healthy or unhealthy emotional intelligence (Leeper, 1948; Young, 1943; De Sousa, 1997, and Nussbaum, 2001). In maritime perspective, Reuven Bar-On's definition (1997) is another that informs this paper as he addresses, "...nongognitive capabilities, competencies, and skills that influence one's ability to succeed in with environmental demands and pressures". Non-cognitive refers to the "emotional, personal, and social components of intelligent behavior" (Bar-On 1997, p. vii). These capabilities appear to be particularly important given the environmental variables inherent in maritime management, and so are included as a consideration.

Emotional Intelligence Theories and Models

Emotional Intelligence is expounded in the theories and models of the following, namely: 1) Mayer and Salovey (1990), the Ability of EI Model, 2) Bar-on (1997), Emotional and Social Intelligence EI Model, and 3) Golman and Boyatzi, the Mixed Model of Emotional Intelligence.

First, the model of Mayer and Salovey pioneered the four branches of Emotional Intelligence which is known as "Ability EI Model". Working within their definition, they developed a four-branch model of EI. The four branches are: "the ability to (a) perceive emotion; (b) use emotion to facilitate thought; (c) understand emotions; and (d) manage emotions" (Mayer et al., 2004, p. 199). The focus of this model is an individual's capacity to perceive and manage emotions. The four branches of the Mayer, Salovey and Caruso model are based on abilities rather than on traits. This aligns the model with constructs of intelligence (Cote & Miners, 2006).

The measurement tool designed to align with this model is called the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). This test is designed to measure the individual's abilities in four areas: (a) perception; (b) assimilation; (c) understanding; and (d) managing emotions (Conte, 2005). These four areas align with the four branches and are based on intelligence testing (Cherniss, 2010). The test is completed by measuring the person's performance using eight tasks areas (Mayer et al., 2004).

Second, Bar-On developed his model as part of his PHD. The model is known as the Bar-On *emotional and social intelligence model* "identifies traits and skills that help people to adapt to the social and emotional demands of life" (Cherniss, 2010, p.111). Bar-On's theory focused on how individuals emotionally and socially responded to others. This includes an individual's ability to be: a) self-aware; b) aware of others; and c) the application of using this information to inform a social transaction (Cherniss, 2010). The use of these abilities to guide one's social interactions adds the social aspect to emotional intelligences in Bar-On's model.

The Bar-On model is measured using a self-report measurement tool called the Bar-On Emotional Quotient Inventory (EQ-i) (Conte, 2005; Cherniss, 2010). This measurement tool establishes an individual's EI scored through the following five areas: a) intrapersonal; b) interpersonal; c) adaptability; d) general mood; and e) stress management (Conte, 2005). It has been reported that there is limited levels of reliability and validity to this test (Conte, 2005, Cherniss, 2010).

Third, the Boyatzis and Goleman's model, this model has been the catalyst to popularizing the construct of EI and is based on the work of Mayer, Salovey and Caruso (Cherniss, 2010). The model has been put into practice in many workplaces because it is designed to include the social and emotional competencies that are thought to be correlated to superior performance at work (Cherniss, 2010). In this model the competencies are aligned with the following four areas: (a) self-awareness; (b) self-management; (c) social awareness; and (d) relationship management (Cherniss, 2010). This model is considered attractive to organizational development because it is thought that the extent that an individual's ability to function in these four areas can impact both the environment and production in the workplace.

The measurement tool used with Boyatzis and Goleman's model is called the Emotional Competence Inventory (ECI) (Conte, 2005). This test measures four areas: (a) self-awareness; (b) self-management; (c) social awareness; and (d) relationship management (Conte, 2005). The empirical evidence to support validity and reliability for the ECI is limited due to the lack of access researchers have to the test methodology because of proprietary issues (Conte, 2005). As Goleman's focus throughout his development of the EI construct has been organizational leadership and development, the EI model and tools he has developed have become a business. For organizational purposes, the ECI can be used as a self-report test but is designed to include ratings from both peers and supervisors (Conte, 2005).

Relevance of EI competencies to K to 12 Enhanced Basic Education Republic Act 10533

Under RA 10533, the K-12 Philippine Basic Education Curriculum, schools are mandated to develop student's being and becoming a whole person. Students should learn various skills such as information, media technology skills, effective communication skills, learning and innovation skills and *life and career skills*. Life skills are also referred to as transferrable skills, generic skills, *soft skills*, core skills (Robles, 2012; Stephens, 2013).

Similarly, K to 12 curriculum required every learner to have in depth knowledge about themselves, as evident in adding years to the basic education curriculum. In the same fashion that undergoing learning emotional intelligence through emotional skill assessment processes may be a guide for students' development towards building and maintaining strong, productive and healthy relationships which are essential to academic life.

The Standard of Training, Certification, and Watch keeping (STCW) for Seafarers, 1978 as amended in Manila 2010

Table A-II/1 of Section II, and Table A-III/1 of Section III in the STCW '78 as amended, provides criteria for evaluating competence for Deck and Engine officers, operational levels, and cadets to have the following EI competencies: 1) responsibility for the safety of navigation, 2) communication skills, 3) problem-solving skills, 4) leadership skills, 5) teamwork, 6) resource management, 7) situational awareness and 8) decision-making skills.

All these criteria are minimum requirements for the deck and engine cadets should develop before undergoing shipboard training. Accordingly, the NSU-CME looks at the key competencies of EI competencies of the maritime cadets as the ability to: a) interact effectively with people, b) build teamwork, c) act autonomously, and d) preserve the Filipino positive values (Personnel Management for Maritime Education by de la Calzada et.al). These are personal qualities, behavior, devotion to duty and professional zeal, leadership talent, organization talent, autonomy, decisiveness, self-confidence, responsibility, perseverance, initiative, cooperation, care for personnel, care for material mean, appearance, stamina, flexibility, and coping with stress (NSU-CME Academic Forms – Performance Report for Deck and Engine Cadets).

The CHED Memorandum Orders

As provided in CMO 13 and 14 series of 2013, all Maritime Higher Education Institution shall comply with the minimum standards provided for under CMO 2, series of 2012 entitled “Implementing Guidelines on the Shipboard Training Requirement for the Bachelor of Science in Marine Transportation (BSMT) and Bachelor of Science in Marine Engineering (BSMarE) Programs.”

As such, BSMT and BSMarE programs aims to provide and equip student with knowledge proficiencies, skills, competence, attitudes and values to qualify them for 1) professional licensure examination. In terms of BSMT, assessment and certification as officer in charge of a navigational watch on seagoing ships of 500 gross tonnage or more; while on the BSMarE, assessment and certification as officer in charge of an engineering watch in a manned engine-room or designated duty engineer officer in a periodically unmanned engine-room on seagoing ships powered by main repulsion machinery of 750kW propulsion power or more. These provisions indicate that maritime cadets should take crew endurance management considering their real work during shipboard training. The mandatory shipboard training imposed by CHED is a requirement for them to become officer in the ship. Being the officer in the ship, one has to possess relevant EI competencies to be effective and efficient in the workplace and handle the responsibilities for safety and ship management.

The Implication of EI competencies to 21st Century Workforce.

Educators perceive the importance of EI competencies for the success in the 21st century workforce and its integration in the curriculum. Preparing the students for life success is a joint effort of every sector in the campus: the academics and the non-academics. After all, students do not just study to get good grades. They should be able to do something with what they learned from the classroom (Jones, 2014). In ensuring life success, every stakeholder must contribute, for there is no single subject that can teach the life skills that are needed by the students (Songco 2015, Kiran, 2007; Watson, 2000).

Similarly, the prospect of a relationship between EI, leader-ship and individual, group and organizational out-comes is sufficiently compelling to attract the attention of researchers who will resolve the question and move leadership theory and understanding of social influence to its next stage (Brown and Moshavi 2005, p. 870).

Numerous studies indicate that human factors contribute to the vast majority of marine casualties. Most of these human factors relate to cognitive abilities such as situational awareness and situational assessment (Salmon, et.al.,2008). EI competencies play the essential factor for a cadet to undergo shipboard training and experience the life at sea. The

values and attitudes developed during the curricular years are essential to prepare cadets for the success of their shipboard training. Ship-owners and ship officers demand high expectation on cadets to perform their tasks with less supervision and endure the stress while in shipboard training.

Emotional Intelligence framework

Although the NSU-CME failed to analyze the data of the stakeholders’ feedback pertaining to the performance report of the marine deck and engine cadets, the college is bound to make the appropriate corrective actions in compliance to CHED and MARINA OBME and STCW requirements. The college compels the search for a framework that captures the essence of the identified EI competencies so that we can assess the performance of the cadets based on the stakeholders’ feedback. The college adopted the emotional development framework introduced by Goleman, Boyatzis, and Mckee (2001). Though this framework was not utilized during the crafting of the instrument, this become the essential basis in assessing the performance of the cadets as to their personal attributes, professional knowledge and skills, and the outlook and expectation that these cadets can be considered as ship’s officers after the one (1) year seagoing experience.

The NSU-CME has adopted the Boyatzis and Goleman’s model. This model has been the catalyst to popularizing the construct of Emotional Intelligence(EI) and is based on the work of Mayer, Salovey and Caruso (Cherniss, 2010). The model has been put into practice in many workplaces because it is designed to include the personal competence and social competence that are thought to be correlated to superior performance at work (Cherniss, 2010).In this model the competencies are aligned with the following four areas: a) self-awareness; b) self-management; c) social awareness; d) relationship management. This model is considered attractive to organizational development because it is thought that the extent that an individual’s ability to function in these four areas can impact both the environment and production in the workplace (Dobmeier, 2012).

In using this framework, the CME tried to categorize the components of the instrument used in assessing the performance of the deck and engine cadets. It was found out that the components fits on the four competencies introduced by the framework. Thus, they consider the emotional intelligence framework as a strong grounding for this study. The framework is illustrated in the Figure 1.



Figure 1. The Boyatzis and Goleman’s Emotional Intelligence Framework

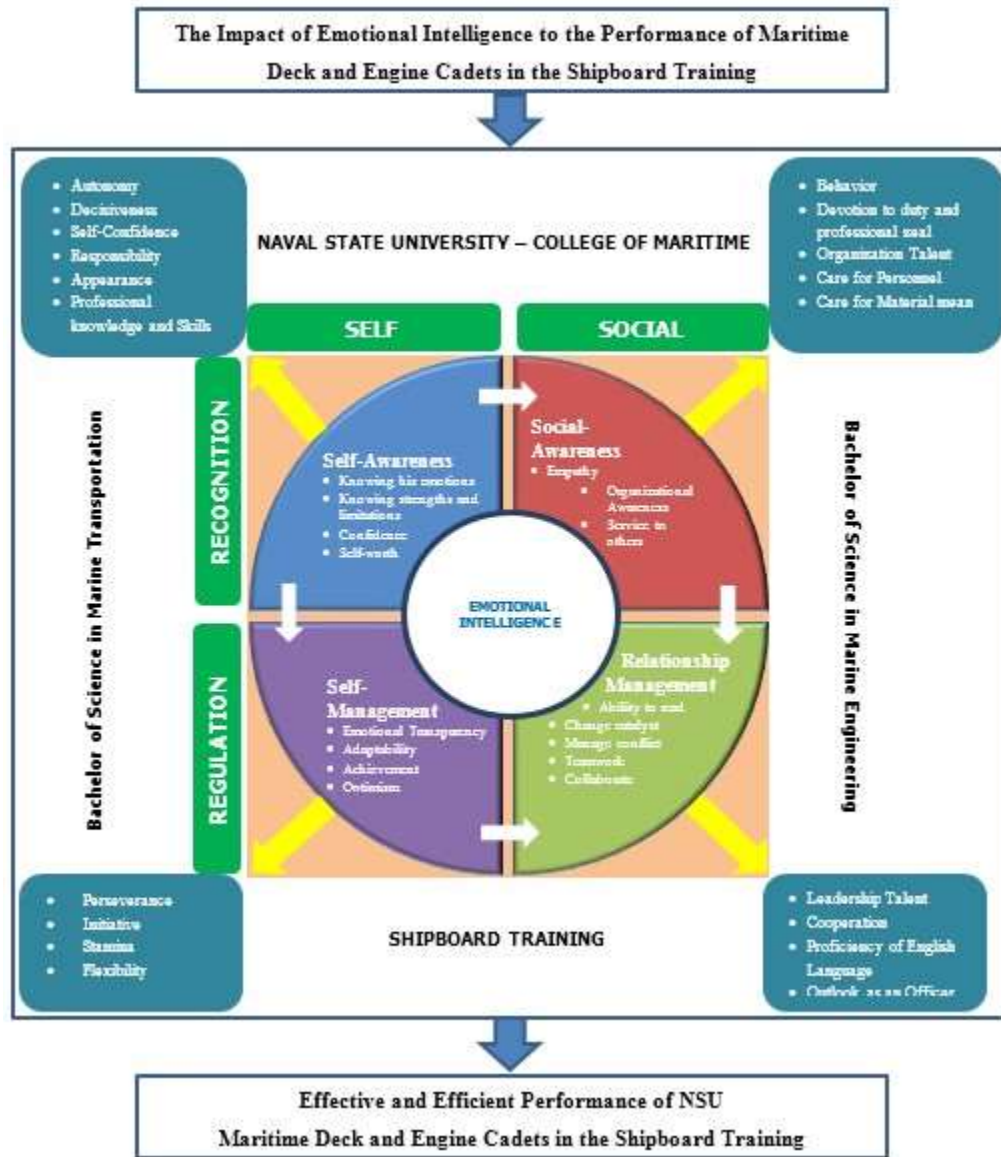


Figure 2. Conceptual Framework

The conceptual framework on “The Impact of Emotional Intelligence to the Performance of Maritime Deck and Engine Cadets in the Shipboard Training” is founded on the emotional intelligence theory of Boyatzi and Goleman (1995). Emotional Intelligence is the core of the cadets development of personal and interpersonal qualities during shipboard training. The EI competencies are categorized into: 1) Self-awareness, 2) Self-management, 3) Social awareness, and 4) Relationship management. Naval State University (NSU) is a result of the conversion of the former Naval Institute of Technology pursuant to Republic Act No. 9718. NSU is one of the two state universities that cater maritime education in Region VIII. The College of Maritime Education (CME) envisioned being a professional school providing world-class knowledge and skills in seafaring. Along the context of CHED’s typology of SUCs and with the strong partnership of MARINA, NSU contributes to nation building as top-producers of competitive seafarers.

Sometime in May 2014, CHED and MARINA Outcomes-Based Monitoring and Evaluation Team (CHED – MARINA OBME) evaluated the University. One of the findings revealed that the university failed to analyze the stakeholders’ feedback for Deck and Engine Cadets during their shipboard training. These feedbacks from

stakeholders are evidences to show that cadets meet the competency requirements under Regulations II/1 and III/1 of Standards of Training, Certification, and Watchkeeping for Seafarers (STCW), 1978 as amended. This finding covers the key areas of evaluation under curriculum, examination and assessment system, students, and onboard training. External auditors emphasized that most marine casualties were due to poor performance and/or human failures because of mental, physical, and emotional stress and fatigue. The finding pointed out to be imperative not only to find indicators for emotional intelligence (EI), but also for the development and maintenance of the EI competencies. This prompted the CME to look more closely at this finding in order to make the appropriate corrective action(s).

The Naval State University Cadets in BSMT and BSMarE Cadets are required to undergo a one (1) year shipboard training after completing the three-year academic requirements. In terms of self-awareness: cadets are expected to perform tasks without specific instructions and supervision from the ship officers (autonomy); have justified confidence in his own capabilities (self-confidence); able to take quick decisions if situation requires (decisiveness); able to be aware about the consequences of his actions (responsibility); able to project himself and well groomed (appearance); and be aware of his needed professional knowledge and skills.

In terms of self-management: cadets are expected to persevere his obligations under difficult circumstances (perseverance); able to deploy initiatives or make suggestions to the end (initiative); can cope with physical strains related to duties at sea (stamina); and cope with changing situations and accept new polices/ideas (flexibility).

In terms of social awareness: cadets are expected to contribute behavior favorable to work or social climate on board (behavior); demonstrate dedication and ardor in the fulfillment of his work (devotion to duty); able to plan and prepare own work activities and those of others in order to achieve required results in the most efficient way (organization talent); show interest to the well-being of subordinates and fellow workers (care for personnel); and properly use and maintained material means that were put to his disposal (care for material means).

In term of relationship management: cadets are expected to influence and motivate others to execute task/activities (leadership); able to perform task together with superiors, subordinates, and fellow workers (cooperation); have proficiency in communication skills (proficiency of English language); and have the positive outlook to become an officer.

The development of EI competencies should start from inside (Self) to outside (social). The inside-out principle will lead the person from being dependent-to-independent-to-interdependence. Once the person recognized himself and recognized the behavior of others, he can regulate to manage himself so as his relationship to others.

Accordingly, when all these requisites are developed it would lead to the effectiveness and efficiency of the performance of NSU Maritime Deck and Engine Cadets in Shipboard Training. It is a holistic approach that not only the hard skills (knowledge and skills) of the cadets are developed but also the soft skills (EI competencies) are look into to achieve the competencies needed in shipboard training.

RESEARCH DESIGN

Research Focus

This study focused only on the Part II of the Performance Report of Deck and Engine Cadets of the NSU-CME in the development of soft skills of the cadets who underwent shipboard training. It examined the two programs: the Bachelor of Science in Marine Transportation and Bachelor of Science in Marine Engineering for SY 2012-2013 and 2013-2014.

The study attempts to answer the following questions:

1. What are the soft skills needed to improve the performance of the cadets in shipboard training?
2. Are these soft skills evident in the shipboard training?
3. Are these soft skills incorporated in the curriculum and in classroom instruction?

Method

The study used quantitative approach utilizing the existing data submitted by deck and engine cadets of the NSU-CME after undergoing shipboard training. The instrument used in assessing the performance of the cadets was developed by NSU-Maritime Education. This was revised on January 5, 2004 after the recommendations made by Det Norske Veritas (DNV), the external quality assurance auditors for the maritime programs of NSU. Since then, the CME utilized this instrument in assessing the performance of deck and engine cadets. Recently, after the CHED and MARINA OBME evaluation, they found out that these data were not analyzed.

The researcher takes the initiative in analyzing the data of the two programs: 1) BSMT with 35 cadets; and 2) BSMarE with 29 cadets for the SY 2012-2013 and 2013-2014 who underwent twelve months (12) shipboard training. Data were tallied and coded accordingly. Guided by the framework of Boyatzis and Goleman’s emotional intelligence model, components of the instruments were categorized according to the four areas of competencies of the EI namely, a) self-awareness, b) self-management, c) social awareness, and d) relationship management. The results of this data analysis will be used in improving the curriculum and instruction for the College of Maritime Education. Using Likert scale, data are collated, tallied, interpreted, and presented in tables and narrative form based on the four competency areas of Emotional Intelligence Model. These are interpreted into: Excellent = 4.30 – 5.00; Very Good = 3.5 – 4.20; Good = 2.80 – 3.40; Fair = 1.90 – 2.70; and Poor = 1.00 – 1.80. Descriptive statistics such as mean, median, and standard deviation are used to describe the data.

RESULTS AND DISCUSSION

On the soft skills needed to improve the performance of the cadets in shipboard training

1. The NSU-CME faculty, program assessors, QAM believe that the following soft skills are needed to improve the performance of the cadets in the twelve (12) months seagoing experience:

Cooperation	Devotion to duty and professional zeal	Proficiency of English language
Self-confidence	Responsibility	Perseverance
Care for personnel	Care for material means	Appearance
Professional knowledge	Professional skills	Leadership Talent
Autonomy	Decisiveness	Initiative
Behavior	Stamina	Flexibility

Table 1 presents the emotional intelligence framework including the identified soft skills by NSU-CME. Utilizing the Boyatzis and Goleman’s emotional intelligence framework, the soft skills identified by the NSU-CME faculty, program assessors, QAM can be classified into personal and social competences and break down into four areas: self-awareness, self-management, social awareness and relationship management. This representation shows that emotional intelligence framework help in categorizing the soft skills identified by NSU-CME. Based on these classifications of competences in the EI framework and soft skills are connected with each other. Thus, EI framework can be used to analyze the data.

Table 1. Emotional Intelligence framework vis-à-vis the identified soft skills by NSU-College of Maritime

Emotional Intelligence Framework (Goleman, Boyatzis, Mckee)		Required Soft Skills identified by NSU-CME in order to comply STCW requirements.	
Personal Competence	Self-Awareness	<ul style="list-style-type: none"> • Knowing his/her emotions • Knowing strengths and limitations • Confidence • Self-worth 	<ul style="list-style-type: none"> • Autonomy • Decisiveness • Self-Confidence • Responsibility • Appearance • Professional knowledge and Skills

	Self-Management	<ul style="list-style-type: none"> • Emotional Transparency • Adaptability • Achievement • Optimism • Initiative 	<ul style="list-style-type: none"> • Perseverance • Initiative • Stamina • Flexibility
Social Competence	Social Awareness	<ul style="list-style-type: none"> • Empathy • Organizational awareness • Service to others 	<ul style="list-style-type: none"> • Behavior • Devotion to duty and professional zeal • Organization Talent • Care for Personnel • Care for Material mean
	Relationship Management	<ul style="list-style-type: none"> • Ability to read • Change catalyst • Manage conflict • Teamwork • Collaborate 	<ul style="list-style-type: none"> • Leadership Talent • Cooperation • Proficiency of English Language • Outlook as an Officer

Are these soft skills evident in the shipboard training?

- For the Bachelor of Science in Marine Transportation (BSMT) and Bachelor of Science in Marine Engineering (BSMarE)

Table 2. BSMT and BSMarE Cadets' Self-awareness

Self-Awareness	BSMT (n=35)			BSMarE (n=29)		
	Mean	Median	SD	Mean	Median	SD
Autonomy	3.943	4.00	0.765	3.86	4.00	0.742
Decisiveness	4.00	4.00	0.728	3.86	4.00	0.639
Self-Confidence	4.20	4.00	0.632	4.21	4.00	0.675
Responsibility	4.143	4.00	0.692	4.06	4.00	0.704
Appearance	4.086	4.00	0.702	4.00	4.00	0.707
Professional Knowledge	4.00	4.00	0.728	4.03	4.00	0.731
Professional Skills	4.114	4.00	0.695	3.88	4.00	0.731
Total	4.066	4.00	0.706	3.97	4.00	0.708

The data in Table 2 indicate the cadets' self-awareness with means of 3.943 to 4.143 and an average mean of 4.066 (Mdn = 4.00) interpreted as very good for BSMT program. On the other hand, means of 3.86 to 4.21 and an average mean of 3.97 (Mdn = 4.00) interpreted as very good for BSMarE program. It shows that BSMT cadets are more aware on themselves than BSMarE cadets while they are on shipboard training. However, BSMarE cadets are rated with a mean of 3.86 in terms of autonomy. This implies that BSMarE cadets need direct supervision and specific instructions from their ship officers to perform tasks effectively while they are on the shipboard training.

Table 3. BSMT and BSMarE Cadets' Self-Management

Self-Management	BSMT (n=35)			BSMarE (n=29)		
	Mean	Median	SD	Mean	Median	SD
Perseverance	4.00	4.00	0.686	4.138	4.00	0.639
Initiative	4.114	4.00	0.676	4.069	4.00	0.753
Stamina	4.057	4.00	0.764	4.172	4.00	0.711

Flexibility	4.057	4.00	0.725	4.00	4.00	0.707
Total	4.057	4.00	0.713	4.095	4.00	0.702

The data in Table 3 indicate the cadets' self-management with means of 4.00 to 4.114 and an average mean of 4.057 (Mdn = 4.00) interpreted as very good for BSMT program. On the other hand, means of 4.00 to 4.172 and an average mean of 4.095 (Mdn = 4.00) interpreted as very good for BSMarE program. It shows that ratings for both programs are relatively high in terms of self-management. This implies that BSMT and BSMarE cadets have strong self-management while they are on the shipboard training.

Table 4. BSMT and BSMarE Cadets' Social Awareness

Social Awareness	BSMT (n=35)			BSMarE (n=29)		
	Mean	Median	SD	Mean	Median	SD
Behavior	4.257	4.00	0.561	4.207	4.00	0.726
Devotion to duty and professional zeal	4.229	4.00	0.646	4.00	4.00	0.707
Organization talent	4.114	4.00	0.676	4.069	4.00	0.799
Care for personnel	4.171	4.00	0.618	4.138	4.00	0.693
Care for material mean	4.20	4.00	0.677	4.034	4.00	0.778
Total	4.194	4.00	0.635	4.090	4.00	0.741

The data in Table 4 indicate the cadets' social awareness with means of 4.20 to 4.257 and an average mean of 4.194 (Mdn = 4.00) interpreted as very good for BSMT program. On the other hand, means of 4.00 to 4.207 and an average mean of 4.090 (Mdn = 4.00) interpreted as very good for BSMarE program. It shows that ratings for both programs are relatively high in terms of social awareness. This implies that BSMT and BSMarE cadets have strong social awareness and show positive behavior that contributed to a favorable work and social climate on board.

Table 5. BSMT and BSMarE Cadets' Relationship Management

Relationship Management	BSMT (n=35)			BSMarE (n=29)		
	Mean	Median	SD	Mean	Median	SD
Leadership talent	4.029	4.00	0.707	4.034	4.00	0.731
Cooperation	4.343	4.00	0.684	4.103	4.00	0.724
Proficiency of English Language	3.90	4.00	0.746	3.845	4.00	0.773
Outlook as an Officer	3.248	3.50	1.472	2.690	2.67	1.61
Total	3.880	3.875	0.902	3.668	3.67	0.960

The data in Table 5 indicate the cadets' relationship management with means of 3.248 to 4.343 and an average mean of 3.880 (Mdn = 3.875) interpreted as very good for BSMT program. On the other hand, means of 2.690 to 4.103 and an average mean of 3.668 (Mdn = 3.67) interpreted as very good for BSMarE program. It shows that NSU-BSMT cadets are more cooperative to perform tasks together with superiors, subordinates and fellow workers than NSU-BSMarE cadets while they are on shipboard training. However, BSMarE cadets are rated with a mean of 2.67 interpreted as fair in terms of their capabilities to perform tasks independently as ship officer. This implies that the BSMarE cadets need to have a close supervision and strong assistance from the officers in performing their tasks while they are on the shipboard training.

Table 6. BSMT and BSMarE Cadets' Emotional Intelligence vis-à-vis the identified soft skills by NSU-College of Maritime during shipboard training

Relationship Management	BSMT (n=35)			BSMarE (n=29)		
	Mean	Median	SD	Mean	Median	SD
Self-Awareness	4.066	4.00	0.706	3.97	4.00	0.708
Self-Management	4.057	4.00	0.713	4.095	4.00	0.702
Social Awareness	4.194	4.00	0.635	4.090	4.00	0.741
Relationship Management	3.880	3.875	0.902	3.668	3.67	0.960
Total	4.049	3.969	0.739	3.956	3.917	0.778

As revealed in Table 6, the average mean obtained by the BSMT program is 4.049 interpreted as very good. It has means ranging 3.880 to 4.194 (Mdn = 3.969, SD = 0.739), which expresses that the deck cadets have developed more soft skills in terms of social awareness while they are on shipboard training. On the other hand, the average mean obtained by the BSMarE program is 3.956 interpreted as very good. It has means ranging 3.668 to 4.095 (Mdn = 3.917, SD = 0.778), which implies that the engine cadets have developed more soft skills in terms of self-management while they are on shipboard training. The means of 3.880 and 3.668 for BSMT and BSMarE respectively, indicate that both deck and engine cadets needs improvement in developing their soft skills in terms of relationship management.

Are these soft skills incorporated in the curriculum and in classroom instruction?

Soft skills developed in the classroom instruction by NSU-CME BSMT and BSMarE students.

As provided in Section 1, Article I of CMO 31 and 32 Series 2013, the crafting of the two Amendments and Supplemental Policies, Standards and Guidelines to CMO 13 and 14 Series 2012 was enlightened by the new model courses of the International Maritime Organization (IMO) as approved by the General Assembly of the STCW 44th Meeting on 3 May 2013. At the same time, the General Assembly accepted another model course on Leadership and Teamwork for inclusion in the Model courses for OIC deck and engine watch.

All maritime higher education institution are mandated to meet the minimum competence that includes personal competence involving knowing how to conduct oneself in a specific situation and ethical competence involving the possession of certain personal and professional values. For maritime education, the minimum competences are specified in the Tables in the Standards of the STCW Code (Article II of CMO 31 and 32 series 2013).

The program educational objectives for both BSMT and BSMarE expressly stipulate that both programs aims to provide and equip students with knowledge, understanding, proficiencies, skills, competences, attitudes, and values. On the same manner, graduates in these programs shall acquire knowledge and competencies to: a) work in a multi-cultural and/or multidisciplinary team; b) understand professional and ethical responsibilities; c) communicate effectively in oral and written English; d) understand the impact and implications of various contemporary issues in global and social context of the profession; and e) design research and analyze data using appropriate research methodologies.

The curriculum of these two programs in terms of General Education subjects are revised in effect with the implementation of the K to 12 program in 2016. While the instructional approach for these programs shall be learner-centered and outcomes-based to prepare the students for a career at sea and effectively carry out the tasks, duties and responsibilities of an Officer-In-Charge of a Navigational Watch (Deck) and Engine Watch (Engine).

Table 7. Curriculum Content in which soft skills are developed for BSMT and BSMarE programs

FIRST YEAR					
Term	Course	No.	Descriptive Title	Units	Program
1 st	English	1	Study and Thinking Skill in English	3	Both
	Humanities	1	World Culture and Geography	3	BSMarE
2 nd	English	2	Writing in the Discipline	3	Both
	Humanities	1	World Culture and Geography	3	BSMT
	Humanities	1	Ethics	3	BSMT
SECOND YEAR					
1 st	English	3	Speech Communication with International Maritime Organization Standard Marine Communication Phrases (IMO SMCP)	3	Both
	Humanities	1	Ethics	3	BSMarE
	PE	3	Team Sports	2	Both
2 nd	SocSci	3	Society and Culture with Family Planning, STD, HIV & AIDS Prevention	3	Both
	Mar Env		Protection of the Marine Environment	3	BSMarE
	Persman		Leadership and Teambuilding	3	BSMarE
THIRD YEAR					
1 st	SEAM	4A	Trim, Stability and Stress	6	BSMT
2 nd	SEAM	4B	Trim, Stability and Stress	5	BSMT
2 nd	Persman		Leadership and Teambuilding	3	BSMT
FOURTH YEAR					
1 st 2 nd	Cadetship		One – year Seagoing Service, documented in an approved Onboard Training Record	40	Both

Ideally, a subject with three units will have fifty-four hours direct contacts with students per semester. Table 7 reveals that BSMT has more classroom meetings in which the development of soft skills are directly incorporated in the nine (9) subjects with a total of 558 hours all through the academic years of the students. On the other hand, the BSMarE has seven (7) subjects with a total of 360 hours contacts with students. Both programs will have 40 units in their cadetship in the fourth year level in which they are undergoing one (1) year seagoing experience. This on-board training is also an avenue where they can exercise and develop their soft skills.

CONCLUSIONS

In the context of the findings as revealed in this study it is safe to conclude that: the NSU-CME faculty, program assessors, and quality assurance manager have identified 18 soft skills that are necessary to improve the performance of the BSMT and BSMarE Cadets undergoing shipboard training either in international or domestic shipping. These soft skills can be categorized and cluster using Goleman, Boyatzi Emotional Intelligence framework for analyzing the data of stakeholders' feedback. The BSMT and BSMarE Cadets developed soft skills from their on-board training either in international or domestic seagoing service as revealed in their performance report of their training record book. These soft skills are clustered in four areas of competences (self-awareness, self-management, social awareness and relationship management) using Goleman and Boyatzi Emotional intelligence model, which derived from the stakeholders' feedback while these cadets are undergoing shipboard training. All the competences and skills needed by BSMT and BSMarE programs are clearly stated in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) as prescriptive to ensure uniform training of officer-in-charge and officer across the globe for as long as the more important outcomes are achieved. The Commission on Higher Education has mandated all Maritime Higher Education Institutions including NSU-CME to adopt the CMO 31 and 32 series 2013 as the policies, standards and guidelines for BSMT and BSMarE respectively. Soft skills are incorporated in the NSU-CME curriculum content and in classroom instruction through the nine (9) subjects in the BSMT and seven (7) subjects in the BSMarE programs.

RECOMMENDATIONS

The following recommendations are categorically anchored on the conclusions made: Shipboard training is one of the avenues that BSMT and BSMarE Cadets can develop their soft skills, the NSU-CME should have taken support initiatives that strengthen the organizational life a student where soft skills are effectively developed, honed and affirmed through additional in-house training, seminars, lectures and forums. The one-year seagoing service is a requirement for the BS program of maritime education; the NSU-CME should provide competency assessment prior to this seagoing experience of the cadets, which includes testing of competency for readiness to their new life at sea. Soft skills should be incorporated in the curriculum and in classroom instruction in order to prepare BSMT and BSMarE Cadets to counter mental, physical, and emotional stress on the reality of life at sea. NSU-CME quality assurance manager, dean, and program assessors should not fail to analyze the data of stakeholders' feedback in order to improve classroom instruction for maritime programs.

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