

Structured Shipboard Training Program and Performance of Maritime Cadets

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Abstract — This study utilized the descriptive survey method of research which tried to assess the shipboard training profile and performance of maritime cadets of Palompon Institute of Technology, Palompon, Leyte as inputs to improve the maritime education program of the Institute. The subjects were the deck and engine cadets who completed their 3-year curricular academic requirements who were qualified to take their 1-year shipboard apprenticeship on board Dutch ships from 2014-2015. The main instrument used in this study was the standardized survey questionnaire taken from the International Shipping Federation (ISF) logbook contained in the Quality Management System Manual of PIT College of Maritime Education (COMEd) which was approved and accepted by the Det Norske Veritas (DNV), an international consulting firm and Commission on Higher Education (CHED).

Findings showed that the cadets were above average when it came to their personal qualities and their professional knowledge and skills. Most of them were assigned in a general cargo including Ro-ro (roll on- roll off) and big lift. Moreover, both deck and engine cadets were only average when it came to their task performance at the operational level.

When each of the profile indicators of the cadets was related to their task performance, only the personal qualities and professional knowledge and skills revealed a significant relationship to their task performance. Likewise, the safety of onboard practices of the engine cadets in terms of marine engineering and controlling the operation of the ship and care for persons on board was significantly related to the profile in terms of personal qualities and professional knowledge and skills so as their task performance.

Thus, it is recommended that the apprenticeship program should be treated seriously and with sincerity, since this is the only form of a training program that the school can offer that will help them enhance their knowledge and skills thereby making them more effective and productive seafarers. It is also recommended to adopt the training model and identify its loopholes to pave the way for further improvements.

Keywords — KVNR, Performance of Maritime Cadets, Philippines, Structured Shipboard Training Program.

I. INTRODUCTION

One of the most difficult phases of educational management is the assessment of the relevance of the educational programs to the needs, interests, and problems of the community. This phase is frequently sought not only by teachers and administrators but also by the parents and community to find out the responsiveness of the schools in accomplishing their goals and objectives, and in solving the pressing needs and problems of their respective communities.

In the production of Filipino seafarers, maritime institutions play a vital role in facing the task of upgrading their training programs responsive to the rapid technological changes in this era of automation with complex sophisticated equipment on board ship in order to maintain the competitiveness of the Filipino seamen in the world market.

The Standards of Training, Certification, and Watchkeeping (STCW '78) Convention of International Maritime Organization as amended in 2010, requires each maritime institution to establish quality standards for education, training and assessment program to be applied both in managerial and operational levels of activity taking into account how it is managed, organized, undertaken and evaluated in order that the identified goals and objectives are achieved.

The Palompon Institute of Technology (PIT) is one among those maritime institutions in the Northwestern part of Leyte whose educational program primarily aims to provide quality education supportive of the maritime industry and allied technological courses.

The PIT in Palompon, Leyte has been included in the list of maritime education institutions which has fully complied with the CHED Standards and Policies and STCW '78 requirements for submission to the International Maritime Organization (IMO). This is in accordance with CHED Memorandum Order No. 19, s. 2001 and Resolution No. R112-2001 of the Commission en banc dated June 13, 2001. Included in the CHED list

are both the marine transportation and maritime engineering programs of the Institute.

The future of the maritime programs of PIT has been made brighter and more promising with the assistance of the Netherlands government for the upgrading of its maritime education and training, thereby, transforming PIT to become the “Netherlands Maritime Academy” of the Philippines. This project, which requires full compliance by PIT of CHED and STCW '78 requirements, is a consortium of the Royal Association of Netherlands Shipowners (KVRN), the Shipping and Transport College (STC)/International Maritime Transport Academy (IMTA) of Rotterdam and the Ministry of Transport, Public Works and Water Management of the Kingdom of the Netherlands. The long-term cooperation between PIT and KVRN focused on five main areas, i.e., infrastructure, to include setting up of training facilities; curriculum development; procurement of education and training equipment; job rotation for instructors aboard Dutch fleet; and onboard training for selected cadets.

Shipboard training has always been an integral part of the maritime education program. It prepares cadets of “doing” as well as “knowing” the works, duties, and routines onboard a ship. Their one (1) year apprenticeship training is a requirement from the Commission on Higher Education (CHED) in accordance and coordination with the Maritime Industry Authority (MARINA) under Republic Act 10635. This is an act establishing MARINA as the Single Maritime Administration responsible for the implementation and enforcement of the STCW '78 as amended into law by Pres. Benigno S. Aquino III on March 13, 2014.

Structured shipboard training performance is linked to having good organizational skills, teamwork and good time management. On board modern equipment, technological and informational systems are evolving with such rapidity that maritime occupations challenged by these developments require the preparation by educational institutions of learners who are capable of adapting to these changes. Maritime students should be equipped with the required knowledge, understanding, and proficiency to make them acquire the mandatory STCW requirements to be globally competitive.

The researchers are motivated by the aforementioned situation which led to the conceptualization of this study. The 360 days of various works/tasks of cadets in all aspects either at deck or engine departments for the

completion of the four years in Bachelor of Science in Marine Transportation (BSMT)/Bachelor of Science in Marine Engineering (BSMarE) degree is relevant for the enhancement of the future qualified marine deck and engine officers. This has also prompted the researchers in the conduct of this study the objective of which is to assess the performance of cadets during their on board training.

1.1 Theoretical/Conceptual Framework

This study utilizes the Operant Conditioning Theory of Burrhus Frederic Skinner. This theory underscores its Three-Term Contingency with the formula.

$$S^D \rightarrow R \rightarrow S^R$$

In application to this particular study, the theory means that S^D is the discriminative stimulus which covers the guidelines in apprenticeship training translated into questions for a hands-on questionnaire; the R is the response that triggers and is the main reason why this study was conducted, and S^R denotes the respondents' support and willingness to take advantage of the training program. This is the main reason for the struggle of the prospective cadets to become qualifiers of the shipboard training for them to complete their BSMT and BSMarE degrees.

This basically explains that the resulting behavior of man (response) is caused by a strong stimulus. This theory recognizes the Type S conditioning to stress the significance of the stimulus that comes before and elicits the response. Behavior is primarily influenced by stimulus events that follow specifically by its consequences. The type of behavior implying that the active organism that operates in the environment so as to change it in a way is labeled operant behavior. Skinner also called it Type R conditioning to emphasize the effect of the response on future behavior.

In operant conditioning, the motivated behavior is an increased rate of responding or a greater likelihood that a response will occur in the presence of a stimulus. Skinner contended that the student is productive because of prior reinforcement for productive work and because the current environment offers effective enforcers. The concept of the study is shown in “Fig.” 1.

The inputs considered in this study were: the profile of the respondents, the independent variables, which included the personal qualities, professional knowledge and skills and type of ship last boarded.

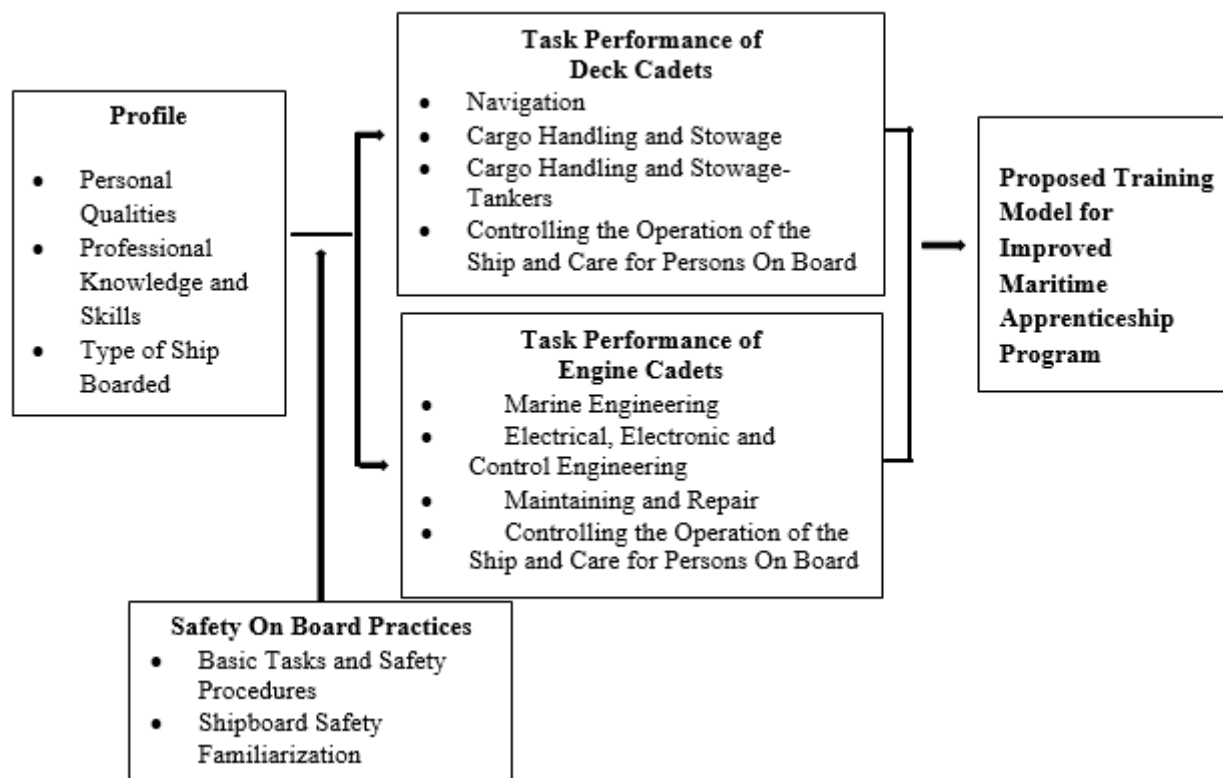


Fig. 1: Schematic Diagram of the Conceptual Framework of the Study

On the other hand, task performances were categorized according to Nautical Science for deck cadets and Marine Engineering for engine cadets. They are considered to be dependent variables. The task performances of deck cadets are in terms of navigation, cargo handling and stowage, cargo handling and stowage-tankers and controlling the operation of the ship and care for persons on board ship.

For engine cadets, the task performances are the following: marine engineering, electrical, electronic and control engineering, maintaining and repair and controlling the operation of the ship and care for persons on board. The task performances of both cadets are affected by their profile.

Likewise, the safety onboard practices of the cadets in reference to basic tasks and safety procedures and shipboard safety familiarization were looked into to find out whether it influences the relationship between profile and task performance. The result of this study will then be used to highlight the good practices and strategies in managing apprenticeship program with the end in view of formulating a shipboard training model in order to improve the maritime education program of PIT and other maritime institutions.

Relative to this, maritime cadets have to work out the actual, and real-life work onboard in order to gain

working-learning experiences outside the usually structured classroom setting.

It is in this context that this study is conducted in order to determine the cadets' personal qualities and professional knowledge and skills that may influence their task performance level. Likewise, the researchers find it relevant to check whether the safety onboard practices affect the task performance of deck and engine cadets in their 1-year apprenticeship training on board merchant ships and their personal and professional qualities.

1.2 Statement of the Problem

The main purpose of this study is to make an in-depth assessment of the structured shipboard training profile and performance of maritime cadets of Palompon Institute of Technology, Palompon, Leyte, as inputs to improve the maritime education program of the Institute.

Specifically, this study seeks answers to the main problem through the following sub-problems:

1. What is the profile of deck and engine cadets Batch 13 in terms of the following:
 - 1.1 personal qualities,
 - 1.2 professional knowledge and skills; and
 - 1.3 type of ship boarded?
2. What is the task performance level of the deck cadets at the operational level in the different areas of:

- 2.1 navigation,
- 2.2 cargo handling and stowage,
- 2.3 cargo handling and stowage-tankers, and
- 2.4 controlling the operation of the ship and care for persons onboard?
3. What is the task performance level of the engine cadets at the operational level in reference to:
 - 3.1 marine engineering,
 - 3.2 electrical, electronic and control engineering,
 - 3.3 maintenance and repair, and
 - 3.4 controlling the operation of the ship and care for persons onboard?
4. Is there a significant relationship between the profile of deck and engine cadets and their level of task performance?
5. Does each of the following safety on board practices affect the relationship between the profile and task performance of deck and engine cadets:
 - 5.1 basic tasks and safety procedures, and
 - 5.2 shipboard safety familiarization?
6. Based on the findings of the study, what proposals can be drawn to help improve the maritime education program of PIT.

1.3 Hypotheses

1. There is a significant relationship between the profile of deck and engine cadets and their level of task performance.
2. The respondents' safety on board practices affect the relationship between the profile of deck and engine cadets and their level of task performance.

1.4 Scope and Delimitation of the Study

The study is focused only on the cadets' profile and their task performance on board their respective Dutch vessels of batch 13 deck and engine cadets from PIT during their structured 12 months apprenticeship training year 2014-2015.

The cadets' profile are in terms only of personal qualities, professional knowledge, and skills of the cadets and type of ship they have boarded. On the other hand, safety onboard practices are in reference to basic tasks and safety procedures and shipboard safety familiarization.

Actual observation of cadets' onboard performance is not possible since cadets are assigned to different vessels from different shipping companies. The researchers relied mainly on the observations/ratings made by the cadets' respective shipboard officers or the master of the ship during the period covered.

II. REVIEW OF RELATED LITERATURE AND STUDIES

In 1978, the International Maritime Organization (IMO), in a conference held at London, adopted an international convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW), and entered into force in 1984. The convention was significantly amended in 1995 and 2010. It was the first to establish basic requirements for training, certification, and watchkeeping for seafarers and sets qualification minimum standards for masters, officers and watch personnel on seagoing merchant ships.

STCW'78 as amended is related to the present study since cadets who are qualified for shipboard training should undergo education, training and certification requirements of the prescribed minimum standards. Hence, the competence of seafarers is the most critical factor in the safe and efficient operation of ships. Monitoring of cadets performance onboard is a must to ensure that the highest standards of competence are maintained.

Republic Act No. 10635 known as "An Act Establishing the Maritime Industry Authority (MARINA) as the Single Maritime Administration and Enforcement of International Convention on STCW for Seafarers, as amended, and international agreements and covenants related thereto" was signed by President Benigno S. Aquino III on March 17, 2014. Under this new law, the MARINA assumes "all powers and functions of the Professional Regulations Commission (PRC), CHED, Technical Education Skills, and Development Authority (TESDA), Department of Health (DOH) and National Telecommunications Commission (NTC), relative to the issuance, validation, verification, correction, revocation or cancellation of certificates of competency, endorsement or cancellation of certificates of competency, endorsement, proficiency and documentary evidence required for all seafarers and all such other matters pertaining to the implementation of the oversight in the implementation of the STCW Convention 1978," as amended.

Presently, MARINA implements and monitors the standards of maritime education and training outcomes of maritime cadets in conformity and compliance with STCW standards. Monitoring the performance of cadets who are on their one (1) year shipboard training is of vital importance to determine the particular areas of their weaknesses that need to be improved, and strengths which need to be reinforced.

In 2014, the CHED released a memorandum order number 20, series of 2014, entitled "Revised Implementing Guidelines On The Approved Seagoing Service Requirement For The Conferment of Degree In Bachelor of Science in Marine Transportation (BSMT)

and Bachelor of Science in Marine Engineering (BSMarE) Programs.” This is to promote quality maritime education programs in compliance with the 1978 STCW Convention and Code, as amended.

This CHED Memorandum Order (CMO) has bearing with the study since the ultimate goal of the researchers is to determine the knowledge, understanding, and competencies of the cadets on board during their shipboard training to improve further the teaching strategies of maritime instructors or to revise the curriculum of the maritime education in accordance with the pertinent provisions of CHED orders and R. A. No. 7722.

In a special report by the Human Resources Research Organization (HumRRo1980) entitled *On-the-Job Training and Social Learning Theory: “A Literature Review,”* it was found out that the most frequently used training method in the industry in Alexandria, Virginia is on the job training (OJT). Mostly, this OJT is unstructured, that is, lacking a training plan designed to develop specific skills and lacking a trainer. Studies of apprenticeship reveal the following difficulties in many apprenticeship programs: the trainee is treated as a helper or semi-skilled laborer; the trainee fails to rotate between all the tasks of the job; trainers lack knowledge or skills regarding instructional methods; completion of training is based on exposure time rather than demonstrated proficiency, and the training plan is not based on an accurate job analysis.

Relative to this, De la Calzada et al. (2000) presented a topic about “preparing maritime students for the seafaring world.” During the time of preparation for the life of prospective seafarers, it is important to motivate them into the direction of their chosen profession. It is important to ascertain that goals do not bring them away from their final dream but compels them to see and take a realistic view of life on board a ship, their relationship with others, the work, and problems.

To be globally competitive, the knowledge, understanding and the technical aspects which students learned in maritime schools is very important. But there are also personal aspects which are also important to be monitored and corrected such as their failure to comply the rules on board, the performance of their daily routines and tasks, and their school projects and assessments aboard ship during their one-year shipboard training.

On the other hand, Adams (2014) stressed in a manual/handbook on best practice guide for recruitment, welfare, and competence of cadets that cadets are trainees at the start of their journey in the maritime industry. Therefore, the industry sector has that obligation to provide a consistent training platform for the development of skills, knowledge, and understanding in an appropriate

training environment and culture with focus and well-being. Cadet training programmers should also underpin an organization’s long-term manning strategy.

Maritime industry should give birth to young cadets - future maritime officers’ program and training. Maritime higher institutions and other maritime stakeholders should ensure that cadets are fully briefed and mentored about their jobs on board. Cadets are there to learn and should be trained accordingly and performance should be assessed to determine rooms for improvement to improve their competencies.

Salinas (2010), president of Filipino Shipowners Association (FSA), encouraged vessel owners to provide berths to cadets. He stated that if the country is really interested in maintaining its title as the world’s number one supplier of highly qualified seafarers, vessel operators should do everything possible to provide maritime cadets with shipboard berths needed by the latter to gain their seagoing experience.

If the Philippines wants to maintain its supremacy as world’s number one supplier of competent seafarers, then ship operators must help the maritime schools by providing the berths needed by our own cadets to further their seagoing knowledge and gain experience. To be competent seafarers, there should be monitoring of cadets to determine their tasks performance on board through assessment for enhancement and leveling up the required proficiency.

Diñoso (2011) published an article entitled “Sustain Philippine Seafarer’s Rank as the Best in the World” years after the shortage has been predicted. World maritime experts say that the shipping trade is still facing a global shortage of 10,000 officers. Despite measures done by the industry to curb the exodus, there has always been a struggle to attract new blood and even the hordes of graduates from different maritime nations have failed to meet the demand of qualified officers in the Philippines now considered as the premier supplier of the world’s seafarers. Maritime academies have been producing some 40,000 cadets per year and around 10% or only 4,000 prefer their career at sea. Today, benchmarking the performance of the international arena of seafaring nations has been the latest trend in shipping.

In the shortage of maritime officers, the maritime higher institutions should plan a program to motivate and encourage cadets to take licensure examination after their one year shipboard training and in line with this they should also ensure that the learning and skills needed by maritime students should be patterned in accordance with the competencies mandated by STCW ’78 as amended.

Douma (2011) stated that it is the policy of Navigia to man the vessels with a fixed group of good, qualified and motivated seamen. To have internal candidates available,

Navigia started a training program in cooperation with the Royal Association of Netherlands Shipowners (KVNR) and the Palompon Institute of Technology (PIT). In cooperation with Marlow Navigation, cadets and junior officers from the Philippines and Ukraine were accommodated. In order to have a good view of the potential of the seamen, regular meetings were held between Marlow and Navigia to discuss the performance of an individual seaman.

Consequently, change is everywhere. It is inescapable. Hardly a day goes without news of the new world economy or the shift from production to service orientation. Indeed, change is necessary to survive in an uncertain world. Also, today's business environment is highly competitive. Because of the sweeping effects of change and competition, a great deal of interest has been placed on higher education and lifelong learning. Consequently, business is turning to training in order to cut costs and increase productivity among employees (Boverie et al., as cited in Casinillo, 2008).

Ochavillo (2014) pointed out in his study about performance attributes of batch 9 deck and engine graduates of PIT-KVNR maritime education upgrading program on personal qualities. Both the shipboard performances of the deck cadets and engine cadets were highly influenced by the subjects associated with personal attributes. The deck cadets posted an overall weighted mean of 4.08, while the engine cadets posted 3.86, both interpreted as "Above Average." On the professional knowledge and skills, both the deck and engine cadets' overall professional knowledge and skills were highly influenced by their associated qualities. The deck cadets obtained an overall weighted mean of 4.11 while the engine cadets had 3.79, and both were interpreted as "Above Average." He concluded that the shipboard performance levels of maritime graduates, to some extent, were influenced by their personal qualities which were related to their level of academic performances. These graduates possessed the competence to perform the duties and responsibilities of an officer. The majority of them could already independently perform the tasks of ship officers right after they completed their 1-year apprenticeship training.

Another study by Ochavillo et al. (2014) was also conducted on "Indices of Task Performance of Batch 9 Deck and Engine Cadets of the PIT-KVNR Maritime Education Upgrading Program" which stressed that the theoretical and practical knowledge taught in maritime professional subjects were highly complementary and supplementary with the actual onboard work requirements.

Ochavillo et al. (2014) studies are similar to the present study since this investigation aimed to determine the

performance of the 13th batch deck and engine cadets on board KVNR vessels. The difference is that their study looked into the academic performance of cadets and the relationship with task performance. This study, on the other hand, tried to find out whether personal qualities and professional knowledge and skills affected their task performance and safety on board practices.

Another study by Fahad, et al. (2003) entitled "Effect of On-the-Job Coaching on Management Trainees Performance" showed that coaching has a positive relationship with job performance and it enhances and increases job performance. Several variables of coaching like coach ability, team coordination, action learning and flexibility of the coach are the determining factors that were affecting job performance (e. g. self-confidence, motivation, job satisfaction, etc.). It was clearly found out that low coaching performance has lowered the job performance of the employees.

The relation of coach and coachee is similar to the on board trainer officer and maritime cadets undergoing apprenticeship training. Like the coach, the trainer officer supervises the theoretical, actual and practical skills progress of the deck and engine cadets who are the coachee. These shipboard trainer officers were interested in training and can motivate cadets if given clear instructions, provided with proper facilities and training aids and above all, enough time to take on responsibilities in addition to their normal work.

Being an institution of higher learning, PIT has committed to globalization in its curricular program. Thus, high expectations are just natural from shipping industry on how its maritime graduates perform onboard ship. So, necessary measures are initiated toward sustainability of the programs for the improvement of performance levels of cadets and for the satisfaction of shipping companies.

Juan as cited in Casinillo (2008), disclosed that teaching performance was greatly affected by numbers of determinants such as professional maturity, personal qualities, and attitudes toward teaching preparedness. The performance was also correlated to training as well as command of the English language, personality, and experiences.

On the other hand, Beat et al. as cited in Casinillo (2008), claimed that experience is part of learning. Experiences of an individual worker are also of great importance in determining how to respond to any situation. An experienced worker seems to be more likely to achieve success in solving problems than the inexperienced one.

Although these studies focused on teachers, it has something to do with on-the-job training (OJT) of maritime students also since they too are expected to do the same if they will be equipped with competencies

needed for them to function efficiently and effectively in line with their job.

All the studies mentioned emphasized that competencies are needed by the respondents to learn and develop skills, attitudes and behavior and competencies to achieve authentic learning which can improve their performance. Some works also dealt with performance and behavior which show improvement after competencies were developed. Although the study refers to teachers, it should not be limited to them only since the respondents of this study will acquire the same attitude if given the same opportunity just like the teachers.

The aforementioned studies revealed similarities with the present research work since the study dealt also with the respondents' personal/individual qualities, professional knowledge, and skills. Likewise, it also tackled the respondents' performance on safety on board practices and task performance as deck and engine cadets.

III. METHODOLOGY

This portion presents the methods and procedures on how the study was undertaken. It describes the research design, research environment, the respondents, the research instruments, data gathering procedure and statistical tools employed in the treatment of the data gathered.

The descriptive survey method was employed in this study. This research method was used to ascertain existing conditions in the locale of the study insofar as the Bachelor of Science in Marine Transportation major in Nautical Studies (BSMT-NS) and Bachelor of Science in Marine Engineering (BSMarE) of Palompon Institute of Technology are concerned. Furthermore, this method was utilized to generate information on the task performance of cadets of onboard ships. The combination of the two methods explored other aspects of the study like the profile of cadets and onboard safety practices.

This study was conducted at the College of Maritime Education, Palompon Institute of Technology, Palompon, Leyte. The school is a chartered state college established in 1972 and is presently certified in accordance with ISO 9001: 2008 Rules for Maritime Academies. Through the partnership with KVNR in consortium with the Shipping and Transport College of Rotterdam, those who qualified for the KVNR on board ship training program are dispatched to the different participating member shipping companies after the selection process for their apprenticeship.

The subjects of the study were the deck and engine cadets who have completed their three-year curricular academic requirements and were qualified to take their one-year shipboard apprenticeship on board Dutch ships from

2014-2015. The subjects were composed of 67 deck cadets and 64 engine cadets.

The research process also included the immediate supervisors of the cadets along with their fields of specialization.

Moreover, the respondents involved in this study were both deck and engine management level officers designated as shipboard trainer officers on board ships owned by Dutch shipping companies and members of the Royal Association of Netherlands Shipowners (KVNR). They were designated by their respective Dutch shipping companies to ensure that these cadets will have complete knowledge and skills required and expected from them while undergoing their mandatory one-year apprenticeship training.

The main instrument used in this study was the standardized survey questionnaire backed-up by spot interviews. The items in the questionnaire were taken from the International Shipping Federation (ISF) logbook contained in the Quality Management System Manual of PIT College of Maritime Education (COMEd) which was approved and accepted by the DNV and CHED.

The survey questionnaire consisted of three parts. Part I inquired on the profile of cadets categorized into A – personal qualities, B – professional knowledge and skills and C – type of ship boarded. Personal qualities included the 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 means, appearance, stamina, and flexibility. Professional knowledge and skills included professional skills and proficiency of the English language.

In order to monitor and determine how students/cadets performed their tasks on board and to know how effective the teaching and the maritime education program of PIT is, Part II, a "Task Summary Checklist" questionnaire was designed for both deck and engine cadets. These questionnaires contained different tasks applicable to their line of works (e.g. navigation and seamanship tasks for deck cadets, use of tools for work on machinery and equipment for engine cadets).

Lastly, Part III dealt with the safety on board practices. It focused on the basic task and safety procedures as well as shipboard safety familiarization.

The survey instruments were sent to all designated shipboard trainer officers during the cadets' shipboard training covering the period 2014-2015. These survey instruments were distributed to all deck and engine cadets deployed by their respective manning agencies in Manila, the capital city of the Philippines, with the explicit instruction that upon embarkation these instruments will

be handed over to their shipboard trainer officer. The trainer officers were asked to fill out the instruments objectively and write their comments if necessary. To ensure the authenticity of the responses, the instrument was signed by the designated shipboard trainer officer and the Master of the vessel. They were also stamped with the ship's seal. The procedure was done on a quarterly basis through email. The crewing manager sent it through the principal and Shipboard Training Officer (STO) email account.

The gathered data were carefully tabulated, scored, analyzed, and interpreted. Specific statistical procedures and formulae were used to make accurate and reliable conclusions. The following statistical measures were used:

To determine the cadets' profile, task performance and safety on board practices, the frequency counts, percentages, and means were used.

In order to facilitate the interpretation of each mean score for every item obtained from the data, the following scale categories with the corresponding qualitative description were established:

Mean Score Scale Value Description

4.21 – 5.00	5	Outstanding
3.41 – 4.20	4	Above Average
2.61 – 3.40	3	Average
1.81 – 2.60	2	Below Average
1.00 – 1.80	1	Poor

To determine the relationships among variables, Pearson Product Moment Correlation or Pearson r was used.

IV. RESULTS AND DISCUSSION

Profile of Deck and Engine Cadets Batch 13

The first research question looks into the profile of deck and engine cadets Batch 13 in terms of personal qualities, professional knowledge and skills and type of ship boarded.

Personal Qualities. Table 1 presents the data on the profile of deck and engine cadets in terms of personal qualities. It shows that the overall mean of the personal qualities of the cadets is 3.50 which is interpreted as "above average." This implies that the cadets of Batch 13 have above average personal qualities that are needed in performing their duties on board.

Table.1: Profile of Deck and Engine Cadets in Terms of Personal Qualities

<u>Personal Qualities</u>		<u>Deck</u>		<u>Engine</u>	
		<u>Mean</u>	<u>Interpretation</u>	<u>Mean</u>	<u>Interpretation</u>
Behaviour	Extent to which his/her behaviour contributed to a favourable work and social climate on board.	3.79	aa	3.74	aa
Devotion to duty and professional zeal	Extent to which he/she demonstrated dedication in the fulfillment of his/her tasks.	3.58	aa	3.70	aa
Leadership talent	Extent to which he/she was able to convince and motivate others to execute task/activities.	3.17	a	3.26	a
Organization talent	Extent to which he/she was able to plan and prepare own work activities and those of others in order to achieve the required results in the most efficient way.	3.21	a	3.34	a
Autonomy	Extent to which he/she was able to perform tasks without specific instructions and supervision.	3.19	a	3.36	a
Decisiveness	Extent to which he/she was able to take quick decision if situations required.	3.23	a	3.28	a
Self-confidence	Extent to which he/she had shown a justified confidence in own abilities.	3.37	a	3.45	aa
Responsibility	Extent to which he/she demonstrated to be and to stay aware about the consequences of his/her own actions.	3.33	a	3.60	aa
Perseverance	Persistence with which he/she performed his/her obligations, also under difficult	3.40	aa	3.43	aa

	circumstances.				
Initiative	Extent to which he/she spontaneously deployed activities or made suggestions to that end.	3.29	a	3.40	aa
Cooperation	Extent to which he/she was able to perform tasks together with superiors, subordinates and fellow workers.	3.69	aa	3.89	aa
Care for personnel	Extent to which he/she was interested in the well- being of subordinates and fellow workers and prepared to stand up for them.	3.58	aa	3.70	aa
Care for material means	Extent to which he/she properly used and maintained material means that were put to his/her disposal.	3.54	aa	3.60	aa
Appearance	Extent to which he/she was usually well-groomed.	3.67	aa	3.64	aa
Stamina	Extent to which he/she could cope with the physical strains related to duties at sea.	3.58	aa	3.70	aa
Flexibility	Extent to which he/she could cope with changing situations and accepted new policies/ideas.	3.52	aa	3.66	aa
Average		3.45	aa	3.55	aa
<i>Legend: a - stands for average; aa - stands for above average</i>		3.50 <i>Above average</i>			
		<i>Overall Average</i>			

For the deck cadets, the top two qualities that got an “above average” interpretation are their behavior and cooperation with weighted mean values of 3.79 and 3.69, respectively. This implies that the deck cadets possessed behavior that contributed to favorable work and social climate on board. They were also cooperative. They performed their tasks with superiors, subordinates, and fellow workers. The least personal qualities that they possessed were autonomy and leadership talent. This means that they were not able to work well without specific instructions and supervision and that they were not able to convince and motivate others to execute or perform the tasks/activities onboard.

Similarly, the top two qualities of the engine cadets are the same as the top two qualities of the deck cadets regarding cooperation and behavior. However, the engine cadets possessed a personal quality which they still need to develop and that is decisiveness with a mean of 3.28 interpreted as “average” personal quality. This implies that the engine cadets were not able to take quick decisions in some situations. As an apprentice, they curtail in making important decisions.

Professional Knowledge and Skills. Table 2 presents the profile of the deck and engine cadets in terms of their professional knowledge and skills. The overall average of both groups is 3.54 which means that the professional

Both deck and engine cadets possessed an “above average” personal qualities with averages of 3.45 and 3.55, respectively. This implies that both groups of cadets already had the personal qualities needed to perform their tasks onboard.

It can also be gleaned from the Table that the deck cadets got an average of 3.50 and the engine cadets got 3.57, both of which are interpreted as “above average.” Specifically, for the deck cadets, the following items are arranged in descending order: proficient at speaking and writing the English language (3.63), proved and demonstrated to possess the skills that are required to perform other than watch-keeping duties as apprentice officer on board merchant ships (3.38) and proved and demonstrated to possess the skills that are required to perform watch-keeping duties as apprentice officer on board merchant ships (3.35).

On the other hand, the engine cadets possess the following professional knowledge and skills in descending order: proficient at writing the English language (3.77), proficient at speaking the English language (3.70), proved and demonstrated to knowledge and skills of the deck and engine cadets are “above average.”

possess the skills that are required to perform watch-keeping duties as apprentice officer on board merchant ships (3.43), proved and demonstrated to possess the

skills that are required to perform other than watch-keeping duties as apprentice officer on board merchant ships (3.38).

Table.2: Profile of Deck and Engine Cadets in terms of Professional Knowledge and Skills

Professional Knowledge and Skills		Deck		Engine	
		Mean	Interpretation	Mean	Interpretation
Professional Skills	The extent to which he/she proved and demonstrated to possess the skills that were required to perform watch-keeping duties as apprentice officer on board merchant ships.	3.35	Average	3.43	Above average
	The extent to which he/she proved and demonstrated to possess the skills that were required to perform other than watch-keeping duties as apprentice officer on board merchant ships.	3.38	Average	3.38	Average
Proficiency of the English Language	The extent to which he/she was proficient at speaking the English language.	3.63	Above average	3.70	Above average
	The extent to which he/she was proficient at writing the English language.	3.63	Above average	3.70	Above average
Average		3.50	Above average	3.57	Above average
Overall Average			3.54 Above Average		

The result implies that both deck and engine cadets were “above average” in speaking and writing the English language. However, they were “average” in demonstrating the skills that were required to perform

watch-keeping and other duties as apprentice officers on board.

Type of Ship Boarded. Table 3 shows the common type of ships that the deck and engine cadets were assigned to have their apprenticeship.

Table.3: Profile of Deck and Engine Cadets in terms of Type of Ship Boarded

Type of Ship	Deck		Engine	
	Frequency	Percent	Frequency	Percent
General Cargo (including Ro-ro and Big lift)	43	76.8	21	42.0
Bulk Carrier	2	3.6	1	2.0
Reefer/Container	6	10.7	18	36.0
Tanker	3	5.4	4	8.0
Livestock Carrier	2	3.6	2	4.0
Passenger	0	0.0	4	8.0
Total	56	100.0	50	100.0

It can be seen from the Table that most of the deck cadets (43 or 76.8%) and engine cadets (21 or 42.0%) were assigned in a General Cargo including Ro-ro and big lift. Some were assigned in a reefer/container, tanker, livestock and bulk carrier. Only 4 or 8% of the engine

cadets were assigned to passenger ships while none of the deck cadets was assigned there.

Task Performance of the Deck Cadets at the Operational Level

Table 4 presents the task performance level of the deck cadets at the operational level in areas of navigation, cargo handling and stowage, cargo handling and stowage tankers, and controlling the operation of the ship and care for persons on board. The overall mean is

3.38 which is interpreted as “average.” This means that the overall task performance of the deck cadets at the operational level is only average. This might be due to the fact that they are still apprenticing officers and still have limited experience working on board.

Table.4: Task Performance of the Deck Cadets at the Operational Level

Task Performance	Deck		
	Mean	Rank	Interpretation
I. Navigation at the Operation Level	3.36	3.5	Average
1. Plan and conduct a passage and determine position.	3.38	3	Average
2. Maintain a safe navigation watch.	3.40	2	Above average
3. Use of radar and Automatic Radar Plotting Aid (ARPA) to maintain the safety of navigation.	3.37	4	Average
4. Respond to emergencies.	3.31	6	Average
5. Respond to a distress signal at sea.	3.25	8	Average
6. Use IMO Standard Marine Communication Phrases (SMCP) and write and speak English.	3.56	1	Above average
7. Transmit and receive information by visual signalling.	3.29	7	Average
8. Maneuver the ship.	3.35	5	Average
II. Cargo Handling and Stowage at the Operational Level	3.36	3.5	Average
1. Monitor the loading, stowage, securing and unloading of cargoes and their care during the voyage.	3.36	3	Average
III. Tankers- Cargo Handling and Stowage	3.44	1	Above average
1. Monitor the loading of cargoes.	3.44	2	Above average
2. Monitor the discharging of cargoes.	3.44	2	Above average
3. Maintain and overhaul cargo system and associated equipment.	3.45	1	Above average
IV. Controlling the operation of the ship and care for persons on board	3.37	2	Average
1. Ensure compliance with pollution prevention requirements.	3.46	1	Above average
2. Maintain seaworthiness of the ship.	3.40	4	Above average
3. Prevent, control and fight fires on board.	3.42	3	Above average
4. Operate the life-saving appliances.	3.46	1	Above average
5. Apply medical first aid on board.	3.29	5	Average
6. Monitor compliance with legislative requirements.	3.18	6	Average
Overall	3.38		Average

Out of the four dimensions in their task performance, the deck cadets were “above average” in terms of “tankers-cargo handling and stowage” with a mean value of 3.44. This means that they performed well in maintaining and overhauling cargo system and associated equipment, monitoring the loading and discharging of cargoes. The second dimension they rated “average” in performing the task is “controlling the operation of the ship and care for

persons on board” with a mean of 3.37. This is followed by “navigation” and “cargo handling and storage” both with a mean of 3.36 interpreted as “average.” This implies that the deck cadets still need to improve their performance in navigation and cargo handling and stowage such as monitoring the loading, stowage, securing and unloading of cargoes and their care during the voyage, and responding to a distress signal at sea.

Task Performance of the Engine Cadets at the Operational Level

Table 5 presents the task performance level of the engine cadets at the operational level in areas of marine engineering, electrical, electronic and control engineering, maintenance and repair and controlling the operation of

the ship, and care for persons on board. The task performance of the engine cadets is only “average” with a mean of 3.27. This implies that there is still a need to improve their performance on board for them to be effective and efficient marine engineers.

Table.5: Task Performance of the Engine Cadets at the Operational Level

Task Performance	Engine		
	Mean	Rank	Interpretation
I. Marine Engineering at the Operation Level	3.47	1	Above average
1. Use appropriate tools for fabrication and repair operation typically performed on the ship.	3.60	1	Above average
2. Use hand tools and measuring equipment for dismantling, maintenance, repair and reassembly of shipboard plant and equipment.	3.53	3	Above average
3. Use hand tools, electrical and electronic measuring and test equipment for fault finding, maintenance, and repair operations.	3.13	7	Average
4. Maintain a safe engineering watch.	3.51	4	Above average
5. Use English in written and oral form.	3.60	1	Above average
6. Operate main and auxiliary machinery and associated control systems.	3.38	6	Average
7. Operate pumping system and associated control systems.	3.51	4	Above average
II. Electrical, Electronic & Control Engineering	3.06	4	Average
1. Operate alternators, generators and control systems.	3.06	4	Average
III. Maintenance & Repair	3.15	3	Average
1. Maintain engineering systems, including control systems.	3.15	3	Average
IV. Controlling the Operation of the Ship and Care for Persons on Board	3.40	2	Above average
1. Ensure compliance with pollution prevention requirements.	3.45	3	Above average
2. Maintain seaworthiness of the ship.	3.40	4	Above average
3. Prevent, control and fight fires on board.	3.51	1	Above average
4. Operate life-saving appliances.	3.51	1	Above average
5. Apply medical first aid on board.	3.30	5	Average
6. Monitor compliance with legislative requirements.	3.24	6	Average
Overall	3.27		Average

As seen from the Table, the following dimensions of the engine task performance are arranged in descending order: marine engineering (3.47), controlling the operation of the ship and care for persons on board (3.40), maintenance and repair (3.15) and electrical, electronic and control engineering (3.06).

The results show that the engine cadets were already “above average” when it comes to operating life-saving appliances, preventing, controlling and fighting fires on board, ensuring compliance with pollution prevention requirements and maintaining sea-worthiness of the ship. This is because they already had a rigid training on these areas during their academic years and before they were assigned to their respective companies.

On the other hand, they still need to improve their performance on maintaining engineering systems including control systems and operating alternators, generators and control systems.

Relationship Between the Profile of Deck and Engine Cadets and Their Task Performance

The fourth research question looks into the relationship between the profile of deck and engine cadets and their task performance. This answers the research hypothesis that there is a significant relationship between the profile of deck and engine cadets and their level of task performance.

It can be gleaned from Table 6 that the personal qualities and professional knowledge and skills of the deck cadets

are significantly correlated with their task performance with correlation values of 0.524 and 0.609, respectively. These values are higher than the critical value of 0.39, thus, the relationship is significant at 0.05 level. This accepts the research hypothesis that there is a significant relationship between the profile, in terms of personal qualities and professional knowledge and skills, and the task performance of the deck cadets. This implies that the personal qualities and the professional knowledge and skills that the deck cadets possess can greatly affect their task performance onboard. However, the profile in terms of the type of ship they were assigned to is not significantly related to their task performance with a correlation value of -0.135. This means that their task performance did not depend on the type of ship. On the other hand, the engine cadets group revealed the same results. The profile of the engine cadets is

significantly related to their task performance, that is their profile in terms of personal qualities with 0.789 and professional knowledge and skills with 0.720 correlation values are both higher than the critical value of 0.28. The profile in terms of the type of ship, when correlated with their task performance, got only a correlation value of -0.032 which is less than the critical value at 0.05 level of significance, thus, the type of ship is not significantly correlated with their task performance. This accepts the research hypothesis that there is a significant relationship between the profile in terms of personal qualities and professional knowledge and skills and their level of task performance.

This implies that the personal qualities and professional knowledge and skills can affect their task performance but not the type of ship they were assigned.

Table 6. Relationship Between the Profile of Deck and Engine Cadets and their Task Performance

Profile of Cadets	Task Performance Level	
	<u>Deck-Pearson r</u>	<u>Engine-Pearson r</u>
Personal Qualities	0.524 (Significant)	0.789 (Significant)
Professional Knowledge and Skills	0.609 (Significant)	0.720 (Significant)
Type of Ship	-0.135 (Not Significant)	-0.032 (Not Significant)

Relationship Between Safety on Board Practices and the Profile and Task Performance of Deck and Engine Cadets
 Tables 7 and 8 present the safety on board practices in terms of basic tasks and safety procedures and shipboard safety familiarization in correlation with the profile and task performance of the deck and engine cadets.

Table 7 presents the relationship between safety on board practices and the profile and task performance of the deck cadets.

In Table 7, the profile in terms of personal qualities, professional knowledge and skills, and type of ship are all not significantly correlated with both basic tasks and safety procedures and shipboard safety familiarization, and safety of onboard practices. The correlation values range from 0.074 to 0.173, all of which are lesser than the critical value of 0.36. This means that the safety of onboard practices do not significantly affect the profile of the deck cadets.

Table.7: Relationship Between Safety on Board Practices and the Profile and Task Performance of Deck Cadets

Deck Cadets' Profile and Task Performance	Basic Tasks and Safety Procedures	Shipboard Safety Familiarization
	<u>Pearson r</u>	<u>Pearson r</u>
Personal Qualities	0.173 (NS)	0.166 (NS)
Professional Knowledge and Skills	0.083 (NS)	0.107 (NS)
Type of Ship	0.074 (NS)	0.113 (NS)

Navigation at the Operation Level	0.163 (NS)	-0.088 (NS)
Cargo Handling and Stowage	0.033 (NS)	0.271 (NS)
Tankers- Cargo Handling and Stowage	-0.105 (NS)	0.316 (NS)
Controlling the operation of the ship and care for persons on board	0.214 (NS)	0.214 (NS)
<i>Overall Task Performance Level-Deck</i>	<i>0.158 (NS)</i>	<i>0.158 (NS)</i>
Note: Significant relationship if r-value is above 0.36 and below -0.36.		

On the other hand, the overall task performance specifically its four dimensions are not significantly correlated with the safety of onboard practices both on basic tasks and safety procedures and shipboard safety familiarization. This implies that the safety of onboard practices does not significantly affect the task performance of the deck cadets.

With these results, the research hypothesis which states that the respondents' safety on board practices affect the relationship between the profile of deck and their level of task performance is rejected. This means that these practices do not significantly affect the profile and task performance of the deck cadets.

Moreover, Table 8 presents the relationship between safety on board practices and the profile and task performance of the engine cadets.

A closer inspection shows that both personal qualities and professional knowledge and skills, when correlated with the basic tasks and safety procedures of the safety onboard practices revealed a significant relationship with Pearson r values of 0.428 and 0.488, respectively, at 0.05 level of significance since these values are higher than the critical value of 0.38. However, all dimensions of the profile are not significantly correlated with the shipboard safety familiarization.

Table.8: Relationship Between Safety on Board Practices and the Profile and Task Performance of Engine Cadets

Engine Cadets' Profile and Task Performance	Basic Tasks and Safety Procedures	Shipboard Safety Familiarization
	<u>Pearson r</u>	<u>Pearson r</u>
Personal Qualities	0.428 (S)	0.056 (NS)
Professional Knowledge and Skills	0.488 (S)	-0.070 (NS)
Type of Ship	0.055 (NS)	-0.007 (NS)
Marine Engineering at the Operation Level	0.496 (S)	-0.004 (NS)
Electrical, Electronic and Control Engineering	0.005 (NS)	-0.045 (NS)
Maintenance and Repair	0.003 (NS)	0.256 (NS)
Controlling the Operation of the Ship and Care for Persons on Board	0.473 (S)	0.017 (NS)
<i>Overall Task Performance Level-Engine</i>	<i>0.479 (S)</i>	<i>0.020 (NS)</i>
Note Significant relationship if r-value is above 0.38 and below -0.38.		

This implies that the safety of onboard practices, specifically, the basic tasks and safety procedures significantly affect the profile in terms of personal qualities and professional knowledge and skills.

Consequently, the safety of onboard practices in terms of the basic tasks and safety procedures significantly affect the overall task performance of the engine cadets with a correlation value of 0.479 which is higher than the critical

value of 0.38. This implies that the task performance of the engine cadets is influenced by certain safety on board practices like marine engineering and controlling the operation of the ship and care for persons on board.

All other dimensions of the engine cadets' task performance are not affected by the shipboard safety familiarization. This means that the safety of onboard practices in terms of the shipboard safety familiarization does not influence any of the dimensions of their task performance.

V. CONCLUSIONS

The cadets are qualified in terms of personal qualities and professional knowledge. Consequently, their employment is more on general cargo, Ro-ro, and the big lift. The immediate supervisors of deck and engine cadets have a big role so that both groups of cadets will improve their task performance at the operational level. The cadets were able to perform their jobs on board as evidenced by the significant relationship among the profiles in terms of personal qualities, professional knowledge, and skills. They also performed their jobs well regardless of the type of ship they boarded on. Both engine and deck cadets took much consideration of the safety concerns onboard. Moreover, the task performance in terms of marine engineering, controlling the operation of the ship, and care for persons onboard are significantly affected by the basic tasks, safety procedures and practices onboard.

VI. SERIOUSLY ADOPT OR EFFECT THE SUGGESTIONS AND RECOMMENDATIONS

/or recommendations solicited from the training officer or Master Officer. As a matter of policy, the instructors should emphasize the inclusion of values of honesty, dedication, love of work and public relation in the curriculum, among others, for these will positively affect the attitude of the cadets toward his work. Apprenticeship program should be given more seriousness and sincerity since this is the only form of a training program that the school can offer that will help the cadets enhance their knowledge and skills thereby making them more effective and productive seafarers. People are the most important resources in the organization, so they should be given importance by the management by providing equal opportunities in terms of sending them to training. Assessment of apprenticeship conducted is a must every year to find out if it addresses the needs of the cadets. Planning of activities will follow and it should involve all counterparts in the school and the different agencies concerned. In this way, they will become committed having been part of the planning process and likewise feel that they are part of the organization. The researchers should disseminate to maritime faculty on areas needing

improvement based on the research findings. The researchers will encourage the faculty members to adopt the training model and identify its loopholes to pave the way for further improvements. A similar work, preferably longitudinal in nature and scope should be conducted to establish a deeper generalization.

Training Model for Maritime Apprenticeship Program

Introduction

Sea phase training is defined as the practical training of cadets onboard the vessel in accordance with STCW'78 as amended. This is promulgated under Chapter II, Section A-II/I, paragraph 6 and Chapter III, Section A-III/I paragraph 2 "onboard training requirements." Training is defined as a planned process to expand the sense of attitude, knowledge or behavioral skills through learning experience to achieve effectiveness in performing an activity or range of activities. This is designed to develop the abilities of the individual and give satisfaction on the current and future manpower needs of the industry.

The effective techniques reduce training times, produce better results and increase the satisfaction of the trainees/cadets in the training process.

The purpose of shipboard training for cadets is to develop the required competence with a planned training. The Master usually delegates his responsibility to his Chief Officer and Chief Engineer who assume commitment for the organization and proper training program. On board ship, training is concerned with performance rather than the subject matter. A person learns to perform the tasks required on the job in the actual job setting under the guidance of the officers and engineers onboard.

In accordance with the pertinent provisions of Republic Act (RA) No. 7722, otherwise known as the "Higher Education Act of 1994" the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers of 1978, as amended, by virtue of the Commission en banc Resolution No. R005-2014 dated October 22, 2014, and in aid of promoting quality maritime education programs in compliance with the 1978 STCW Convention and Code, as amended, and as mandated by CHED Memorandum Order (CMO) No. 20, Series of 2014 known as the "Revised Implementing Guidelines on the Approved Seagoing Service Requirement For the Conferment of the Degree in Bachelor of Science in Marine Transportation (BSMT) and Bachelor of Science in Marine Engineering (BSMarE) Program," Article IV Section 6 and 7, respectively, guidelines for shipboard training requirements for maritime cadets to all Maritime Higher Education Institutions, specifically for the Shipboard Training Officer of the school is developed.

To comply with the said provisions, the researchers decided to create a model that will serve as a guide to all 3rd year maritime students in preparation for the necessary documents and activities prior to their joining on board, and also in preparation for them to be equipped with all the knowledge, and activities to be undertaken during their one year apprenticeship training, as well as the process to be done after the training for the conferment of their BS degree and for licensure examination.

The training model for Maritime Education Program has a process viewed as a series of boxes (processing elements) step one to step three in which step 1 is the Pre-Shipboard Training, Documents, and Orientation Phase, step 2 is the Onboard/Apprenticeship Training Phase, and step 3 is the Post-Shipboard Training Phase.

Step 1 (Briefing)					
Pre-Shipboard Training, Documents, and Orientation					
Key Result Areas (KRA)	Objectives	Methods/ Activities	Documentation/ Evidence of Activity Compliance	Evaluation	Time Frame
1. completion of pre-board training modules on: .1 Basic Training .2 Deck watchkeeping (BSMT) .3 Engine watchkeeping (BSMarE) .4 Advance Firefighting .5 Medical First Aid .6 PSCRB .7 SDS	At the end of the training, trainees/students will be able to: acquire and demonstrate knowledge, skills and competencies required by STCW convention by attending the lecture and practical exercises at the NSTC training center.	- briefing - reading of the given hand-outs/books - listening to lectures from trainers - viewing power point presentations and videos - doing practical exercises	Test results after the lecture, and assessment, - performance record after the practical exercises -training certificates from the training center - Certificate of Proficiency (COP) from MARINA	- written exam -practical assessment conducted by qualified assessors with remarks of <i>passed</i> for competent and <i>failed</i> for not yet competent - monitoring checklist	1. 1st and 2nd semester in their 3rd academic year by batch .1 BT (15 days) .2 Deck Watch-keeping .3 Engine Watch-keeping (5days) .4 AFF (5 days) .5 MEFA (4 days) .6 PSCRB (4 days) .7 SDS (1.5 days)
2. Process pre-board, pre-employment and travel documents .1 Birth certificate (NSO) .2 Training certificates and COP from the training center	-process and compile the required documents for shipboard training - orient on the needed requirements -compare with landmarks the	-information dissemination - close guidance and coaching	authenticated photo- copies of supporting documents	monitoring checklist	2. Sem. break and Christmas break until March

.3 NBI Clearance (VISA Seaman) .4 SSS .5 TIN .6 Passport .7 TOR (requirement for SIRB) .8 Seaman's Book (SIRB) .9 Seaman's Registration Certificate (SRC) .10 ISF-Training Record Book .11 Daily Journal (PIT-IGP Office) .12 Personal Data Sheet (PDS) for STO Office .13 Assessment forms (STO) Office	location of those concerned offices				.8 Every February .10, .11, .13 Every March
3. Orientation	a) differentiate between the twelve (12) months and the thirty six (36) months seagoing service, b) list enrolment requirements for BS; c) familiarize the provisions of training contract; d) accomplish and fill out correctly the required entries in the TRB and daily journal, validation of TRB and the seagoing service documents; e) internalize the system of monitoring of the	conduct a one day orientation program -coaching -distribution of sample forms -workshop and plenary session -open forum	- attendance sheets - orientation program - pictorials	-correctly filled out ISF-TRB, daily journal	March (1 day)

	seagoing service; and f) comprehend how seagoing service is assessed				
4. KVNR Selection and Recognition	- answer written assignments given by the KVNR personnel - pass the written examination and interview conducted by shipping/manning representatives	- administer KVNR examinations - check the examination papers - collate examination papers - encode the examination result - rank the scores individually - conduct recognition ceremony - give rewards/awards to outstanding BSMT and BSMarE students - distribution of TOR	- check examination questionnaires - master list of students who have completed the academic requirements from the Registrar's office	- written examination - interview sheets - Recognition Program	Every first week of April
.3 Final Briefing	- prepare for departure to Manila to their respective agencies	- group meeting/briefing by company to qualified cadets per schedule	- agenda - briefing guide - attendance sheet	organized document portfolio	May to June
.4 Escort the cadets to manning agencies and confirm with the agents the final documents needed and training requirements	At the end of this phase, the STO will be able to: - facilitate the cadets - inspire the cadets to attend the required training courses - require the cadets to undergo a medical examination - facilitate the processing of lacking documents like medical	- assessment of cadets by crewing managers - the manning agency conducts Pre-Departure Orientation Seminar (PDOS)	- Company Crew checklist - Medical report and findings, specifically the "Fit to Work" certification by an accredited physician - POEA contract	PDOS Certificate of Attendance Medical Exam Authenticated POEA contract	June to July

	examination and POEA contract				
Step 2 (Monitoring) On board/Apprenticeship Training					
Key Result Areas (KRA)	Objectives	Methods/Activities	Documentation/ Evidence of Activity Compliance	Evaluation	Time Frame
1. Enrolment to BS degree prior to cadet's embarkation	to support the cadets' completion of their BS degrees	- online monitoring of the cadets through frequent emails, text and phone calls	- compilation of POEA contracts of on board cadets	- completion of the cadetship structured training program - Compliance with the STCW requirements as to gross tonnage /engine Kilowatt of the ship	Any time prior to embarkation
2. submission of individual feedback, task summary, performance report, safety feedback, projects, etc., and onboard assessments	to become aware of onboard performance of cadets and receive feedback from cadets and their respective supervisors on quarterly basis to monitor their performance on board	- making follow-ups for delayed submission - collecting and collating the documents received from cadets - filing the records in an organized manner	* Filled out - Initial Feedback - Task Summary - Performance Report - Safety Feedback - copy of filled out ISF-TRB - copy of projects	- written report of ratings from cadets' immediate supervisors on board - accurately filled-out assessment instruments	every quarter of the year
3. Feedback	to inform the cadets, master, manning/ship-ping company of the feedback, on board assessment, ratings and remarks	- sending emails frequently to concerned person or offices	- received and sent emails filed at STO office	- updated sending of feedback from cadets - updated sending of assessment, ratings, and remarks from immediate	whole year round

				supervisors	
Step 3 (Debriefing) Post-Shipboard Training					
Key Result Areas (KRA)	Objectives	Methods/Activities	Documentation/ Evidence of Activity Compliance	Evaluation	Time Frame
1. completion of the required sea service	to secure a Sea Service Certificate from the manning office after the completion of one (1) year shipboard training program of cadets for them to qualify to apply for their BS degree and file for licensure examination	- checking of documents by the STO	- company sea service	validation on the completion of sea service through the submitted documents of the cadet	Immediately after dis-embarkation
2. debriefing and processing for the BS degree	- to determine and evaluate the cadet's performance and compliance of B.S. degree requirements	- conduct of debriefing activities - check and review record book and daily journal to determine if they have acquired the required competencies - check all the BS degree requirements - advise the cadets to take the BS examination - recommend for conferment of BS degree	- debriefing records - sea service record - seaman's book - passport - ISF-TRB - project works - daily journal - BS examination results - recommendation for conferment of BS degree - record of ISF-TRB evaluation	- debriefing - checking of required supporting documents	Whole year round after the cadet has completed their 1 year shipboard training
3. extend assistance for MARINA licensure examination	- to guide the cadets to achieve success in the licensure examination	- provide the list of performing review centers for them to choose from	- MARINA board examination results of the examinee submitted to STO office - posting of examination results on the tarpaulin at conspicuous place for information and motivation purposes	record of examination results	Whole year round

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