

Strategic Plan for the Enhancement of the Effectiveness and Implementation of conducting a practical assessment of the Maritime School

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Abstract – *The study aimed to assess the effectiveness of Practical Assessment, the Implementation of the Maritime School conducting the practical assessment, the effectiveness of the instrument of the Maritime Industry Administration. Moreover, findings showed that in the three (3) Maritime schools, the student practical assessment was “implemented” in terms of all elements and that the instruments used in the assessment of Maritime students are effective; there is a significant relationship as to the Maritime Schools’ implementation of the practical assessment and effectiveness of the Instrument used. Based from the results; a strategies plan to enhance the effectiveness of the implementation of practical assessment as per STCW requirement. was proposed.*

Keywords: *Effectiveness, Maritime Education, Practical Assessment, STCW*

INTRODUCTION

Assessing student overall performance precisely and meaningfully has constantly been one of the excellent predicaments of education. An end result expressed as a wide variety of marks out of a most total, or as a percentage. This has emerged as no much less vital when the IMO STCW 78 Convention as amended in 1995 is underneath evaluate and global evaluation desires are being required.

Reliably assessing competence is not convenient task, particularly on a worldwide level, however the method can be facilitated by means of organizing credible “Yardsticks” in contrast to the student overall performance can be measured whilst at the identical time supplying desires for the duties and necessities of the seaboard ranks. Thus, an achievable and internationally well-known descriptive scale that virtually identifies the Maritime English verbal exchange overall performance required for the STCW Operational and Management Levels would be extra than an educational exercise—it being significant for students, MET institutions, officers and no longer least for end-users such as transport

organization management who have often requested for the creation of such a device.

There are contradictions in the training and education system that do not enable the targeted targets to be fulfilled. Fundamentally, the evaluation device has modified the goals of the education and education practices from gaining knowledge of capabilities and understanding required on-board ships to passing competency examinations. The sensible implication of this research is treasured by the International Maritime Organization, marine administration and maritime education institutes to assume over the competency-based device and how to enhance the existing maritime education and assessment machine in order to attain its actual objectives.

This research recognized and bridged the gap in literature and study of competency-based education and evaluation in the maritime area and offers practical options for enhancing this system. It is now greater than a decade that the Convention on the Standards of Training, Certification and Watch preserving (STCW) is being implemented to enhance the competency of the seafarers worldwide. One of the essential new tendencies in the new conference was once the concept of competency

primarily based education. Simulators maybe based from the competency tables to be used as equipment for assessing the education.

For enhancing the competency of the trainees. This put heavy obligations on the simulator instructors in the METICs world extensive for the fantastic education and evaluation when the usage of the simulators. The Maritime Industry Authority (MARINA) sets a popular for Practical Assessment through Evaluation of Assessment Instrument, it has about 13 standards to meet, one of the purposes of this is to find out the effectiveness of these standards that MARINA set. Secondly to locate out the factors affecting the student realistic assessment. The classification dimension and time spent per student evaluation that will have an effect on the time of evaluation per student and may reduce the effectiveness of the assessment. The briefing and debriefing of the student earlier than the evaluation may additionally have a massive aspect for the effectiveness of the assessment. The quantity of laboratory publications that the courses students enrolled in every term, quantity of evaluation per grading the qualification of assessor also has an effect on the student practical assessment fatigue also the equipment, machineries available & functional in the bridge simulator may also have an effect

With the 1995 Standards of Training, Certification, and Watchkeeping Convention (STCW'95) moving seafarer education toward outcome-based training (OBE), the focus has shifted to evaluation practices that will allow seafarer college students to demonstrate their ability to perform workplace duties according to the STCW Code's requirements. This research claims that true evaluation, which includes performance-based tasks performed in real-world and meaningful circumstances, can provide a holistic approach to seafarer competence evaluation. Genuine evaluation, on the other hand, can capture critical aspects of job responsibilities and result in consistency of student overall performance in many contexts only if it is valid and dependable. Rubrics as evaluation tools are thought to increase the validity and reliability of assessments; however, this can only be accomplished if unique aspects of its own validity and reliability are addressed. A literature study conducted for this paper revealed a lack of comprehensive educational research on the many components of validity and reliability of authentic evaluation through rubrics.

This study has uncovered the significance of the usage of legitimate and dependable rubrics to be used as guide to the valid, reliable, and genuine evaluation of consequences executed in the getting to know process. Future study needs pursuits to offer insights into improving the validity and reliability of rubrics, as well as to empirically test how they can be used in genuine evaluation within the confines of the STCW Code, in particular, to improve seafarer education practices, student engagement, and learning outcomes, and to ensure that the STCW code's requirements are met. The off short of this study will lead to the development of a strategies and program to enhance the implementation of STCW requirement in maritime practice assessment, not only the school under the study will benefits from this finding of the study but also all the maritime school which subject themselves into strict compliance to the STCW code. Upon investigation of the factors affecting practical assessment of the student's certain measures and policies may be done to further enhance the quality and functionality of maritime education that will meet international seafaring and maritime standards.

OBJECTIVES OF THE STUDY

The main objective of the study is to proposed a Strategic Plan for the Enhancement of the Effectiveness and Implementation of conducting a practical assessment. This study will specifically achieve the following objectives: to determine the implementation of the STCW in student practical assessment; to find out effectiveness of student practical assessment; to test if there is a significant relationship between implementation and effectiveness of the Practical assessment.

Methods

Research Design

Quantitative research was used in this study. To arrive at a conclusion, quantitative research employs computational, mathematical, and statistical tools. It is conclusive in its reason as it tried to quantify the problem and apprehend how widely wide-spread it appears for projectable result to a large population. In this research, quantitative method was employed in order to decide variations between the responses of two exceptional organizations of contributors and the relationships between variables being studied, all of which requires information collection thru survey

and outcomes to series of numerical information, of which have been then analyzed statistically. All these quantitative data have been then used to objectively recognize the existing phenomenon, difficulty or predicament at the municipal authorities and deepen its investigation based on accessible portions of associated literature or observations. Likewise, given the time constraints, the technique is much less time-consuming and to furnishes the researcher great time for records evaluation and interpretation.

Participants of the Study

The study targeted two (2) major groups of respondents, 70 faculty who are Maritime instructor/assessor mostly acting as officers in the ship, and 230 Second year and Third year Maritime Students, specifically B.S. Marine Transportation and B.S. Marine Engineering who have not finished their academic requirements. Purposive sampling was used in the study to generate reviews of events or experiences, as regard to the Maritime Education and Training. Our Lady of Fatima University, Technological Institute of the Philippines, Dr. Yanga College faculty (especially who had gone on board the ship) but available during the semester and the 3rd year Student respondents were those who had their major courses already taken were the target participants.

Instrument

Part I instrument includes the factors affecting student practical assessment. Part 2 instrument was adopted from MARINA which is presently implemented by Maritime Schools and part 3 instrument was also adopted from MARINA which was modified to suit to the needs of the study. In the modification of instruments, other sources and from related literature were used. The questionnaire was carefully reviewed by the research panelists of whom all provided inputs and comments to modify the questionnaire. Upon validation, the research statistician assessed the promptness and applicability in relation to the objectives of the research.

Procedures

The proposal was presented to the Research panel by the researchers. Instruments were created, validated, and then delivered to the target audience. In order to enrich this research, a review of several connected literatures as well as associated information and findings from prior studies was conducted. Instruments were distributed to the LIMA participants and were retrieved thereafter. The frequency and percentage distributions, as well as ranking and

weighted mean, were used to portray the outcomes of this acquired data in tabular form. The outcomes of the tabular analysis were interpreted and analyzed.

Data Analysis

All data gathered were recorded, tabulated, tallied and interpreted using descriptive statistics. Weighted mean was used to assess the level of effectiveness of identified services. ANOVA was used to determine the significant difference between the reference of the two groups of respondents namely program implementers and program beneficiaries; while Pearson - Product Moment Correlation was used to test the relationship between the level of effectiveness of the services provided and the problems encountered on its implementation at 0.05 and 0.01 level of significance.

Ethical Considerations

Before participating in this study, the researchers assumed that each responder had read, agreed to, and accepted the terms of the permission form. The confidentiality of the participants' responses was prioritized. The researchers did not put any pressure on the participants to share information they did not want to respond.

RESULTS AND DISCUSSION

Table 1 presents the Implementation of the Maritime School Conducting the Practical Assessment. With a composite mean of 3.31, all the eleven (12) listed instruments were found to be effective. Among the said instrument, Objective are in line with competence according to table as of STCW code, the highest weighted mean of 3.39, followed by Criteria are verifiable with a weighted mean of 3.36 and the correct information to begin simulator or practical demonstration with weighted mean of 3.35.

First in the list with the highest mean is the Objective which is in line with competence according to table a of STCW code, it is because of the more stringent provision that Standard Training Certification on Watchkeeping (STCW) wants to implement among Maritime schools because this is fundamental in becoming a good Seafarer. For an instructor of maritime education implementing the correct procedure of assessing student is very important, the assessment of the student is a practice to find out the things that the student should know not only in theoretical knowledge related to maritime but also those for the safety of the seafarers.

Table 1
Implementation of the Maritime School Conducting the Practical Assessment

Indicators	WM	VI	R
1. Correct information to begin simulator or practical demonstration	3.35	I	3
2. Objective are in line with competence according to table a of STCW code	3.39	I	1
3. Documents are well supported with information to guide candidates to meet to competencies required	3.33	I	5
4. Appropriateness of level of simulation/practical demonstration to the candidates	3.25	I	11
5 Briefing instructions are clear and in relation to the required learning outcome	3.31	I	7.5
6 Time allocation for briefing/ debriefing period is adequate reflected in the scenarios submitted	3.22	I	12
7 Instruction are clearly stated and attainable	3.26	I	10
8 Performance standards are realistic and related to the required learning outcome	3.31	I	7.5
9 Criteria are verifiable	3.36	I	2
10 Assessment form (rubrics, checklist, etc is available)	3.33	I	5
11 Scoring method is clearly defined	3.33	I	5
12 Sufficient time duration for the execution of scenario as stated in the exercise	3.26	I	9
Composite Mean	3.31	I	

Legend: 3.50 – 4.00 = Fully Implemented (FI); 2.50 – 3.49 = Implemented (I); 1.50 – 2.49 = Slightly Implemented (SI); 1.00 – 1.49 = Not Implemented (NI)

Second in the highest mean is that criteria are is verifiable as per the stringent of the Marina-CHED and STCW, this means that the standard in assessment must be conned to teaching syllabus. Before the assessor conduct an assessment, the student should have an assessment plan, the Head of the department already verify the assessment plan is align to criteria of the detail teaching syllabus, the student must be briefed by the assessor, and the instructor has already discussed the learning outcome to that assessment plan.

When students in universities and colleges are given assessment tasks, it is usual practice to inform them of the criteria that will be used to grade their solutions. In the literature, many strategies for using numerous criteria have already been widely supported. Each program is designed to provide students with distinct advantages. Breaking down holistic judgments into more digestible components is considered as a technique to boost student openness and improve grading objectivity. Such approaches, on the other hand, may not fully represent the entire complexity of multicriteria qualitative assessments, and can result in erroneous grading decisions. Six irregularities in how assessors approach the grading assignment, as well as numerous possible contributory factors, are discovered. Overall, the conclusion is that explicit grading models may not have as strong a theoretical base as is widely assumed, and that holistic appraisal deserves more research [1].

On the third highest mean is Correct information to begin simulator or practical demonstration with the WM of 3.35 as per the

Intended Learning Outcome, it is about what the student should learn before the assessment starts assessor should brief the student about the assessment explain what is indicated in the assessment plan for the student easily to understand, so that they will know what to do during the assessment

It is now more than a decade that the Convention on the Standards of Training, Certification and Watch keeping (STCW) was adopted to improve the competency of the seafarers worldwide. One of the major new developments in the new convention was the concept of competency-based training whereby the trainee was to prove the desired competency through the most appropriate means available. Simulators were mentioned multiple times, the competency tables to be used as tools for the training of seafarers by the instructors as well as for proving the competency by the trainees. This put heavy responsibilities on the simulator instructors in the METICs worldwide for the quality training and assessment when using the simulators. The purpose of this paper is to examine in details what are the requirements set in by the Convention to be a simulator instructor and what in reality is the situation, with some recommendations to improve the situation in the interest of the maritime sector [2].

On the other hand, Time allocation for briefing/ debriefing period is adequate reflected in the scenarios submitted obtained the least weighted mean of 3.22, followed by the Appropriateness of level of simulation/practical demonstration to the candidates with weighted mean of 3.25 and Instruction are clearly stated and attainable (3.26).

First in the list with the lowest mean is the Time allocation for briefing/ debriefing period is adequate reflected in the scenarios It's because of the time constraint to accommodate all the students for the practical assessment

The study of Kolbe et al [3] highlights the paradox that, while debriefings are intended to improve team (rather than individual) learning, it is precisely this team context that creates dangers to debriefing effectiveness (e.g., preference-consistent information sharing, lack of psychological safety inhibiting structured information sharing, ineffective debriefing models). With a thoughtful approach to content (e.g., specific learning objectives) and structure (e.g., responses phase, analysis phase), these risks can be handled.

Second lowest WM is gotten by the Appropriateness of level of simulation/practical demonstration to the candidates (3.25) even though it is second to the lowest the result shows that it is effective it is because the Maritime Schools are following the Standard of Program outline followed by the prerequisite of each program

Basics are the qualifications, requirements, or qualities needed of someone or something to accomplish something or fill a role. They're significant because they help people narrow it down decisions and determine standards in a variety of situations.

The third lowest WM are the Instructions which are clearly stated and attainable (3.26). It shows that even though this instrument is found effective the assessor and instructor should put a load to this instrument because it means that need for improvement will lead to positive result. Current evaluation practices in greater training and presents recommendations on planning evaluation programs, carrying them out, and the use of the outcomes to enhance educational programs. Examples from all kinds of establishments are used to illustrate various evaluation activities.

Under the STCW 78 Convention, Section A-I/6, MET institutions must ensure that seafarer education and evaluation are structured according to specified programs. As a result, the shape should take into account the distribution media, procedure, and material needed to achieve the required level of competence and training. Training as well as assessment also should be overseen, reviewed, and assisted by a qualified individual [4-5]

Although the STCW Code's Tables of Competence placed a premium on seafarers' competence and competency, the importance of academic knowledge and education has not reduced, particularly at the operational and administrative levels. As a result, deciding on the type of education required and striking a balance between competence-based and information-based learning can be a difficult task for MET institutions. This commitment has an impact on choices, as qualified instructors, as well as education and evaluation equipment, are required [4].

The International Maritime Organization (IMO) has completed a comprehensive review of The International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers and the new amendment, also known as the Manila amendment, has been in effect since 2012, with a transitional period of 2012-2017. Based on the gadget engineering context consisting of "Human, Machine and Environment", human elements at sea, i.e., these elements relevant to the seafarers, are persistently underlined. STCW conference is the special venue however for systematic worldwide maritime regulation searching for the "professional competency standards" of seafarers. The change thereto is of extremely important for the Maritime Education and Training (MET) systems, which ought to be wholly understood so as to respond to it effectively. The paper analyzes predominant influences introduced by means of the amendment, with functions to elevate tips for MET structures to put into effect the modification effectively.

Table 2 presents the Effectiveness of Practical Assessment. With a composite mean of 3.29, all the (13) listed instrument were found to be effective. Among the said instruments, The assessment plan was given and explained for the student to be familiarized to the practical assessment (3.37), followed by Demonstrate and explain the procedure of starting Freshwater Generator, and Main Engine, berthing the vessel, and planning the voyage (3.35) and the learning outcome of the assessment is appropriate with intended learning outcome of the Detailed Teaching syllabus, Instruction is clearly stated and attainable, The scenario of the practical assessment are realistic and related to the program and courses of the students, The assessor explain the rubrics before the practical assessment (3.33).

Table 2
Effectiveness of Practical Assessment Instrument

Indicators	WM	VI	R
1 Demonstration the procedure of starting Freshwater Generator, and Main Engine, berthing the vessel, and planning the voyage	3.35	E	2
2 The assessment in line with the function of STCW code and according to the level of student	3.32	E	7
3 The assessment plan was given and explained to the student to be familiarize to the practical assessment	3.37	E	1
4 The assessment that was given is appropriate to the level of the and knowledge of the student	3.30	E	8
5 The learning outcome of the assessment is appropriate with intended learning outcome of the Detail Teaching syllabus	3.33	E	4.5
6 Allotting sufficient time for briefing and de-briefing for the assessment	3.23	E	12
7 Instruction is clearly stated and attainable	3.33	E	4.5
8 The scenario of the practical assessment is realistic and related to the program and courses of the students	3.33	E	4.5
9 Measurable practical assessment	3.26	E	9
10 The procedure of the assessment and rubrics are available	3.20	E	13
11 The assessor explains the rubrics before the practical assessment	3.33	E	4.5
12 Giving enough time for the practical assessment	3.25	E	10.5
13 Score and mistakes are explained after the assessment	3.25	E	10.5
Composite Mean	3.29	E	

Legend: 3.50 – 4.00 = Very Effective (VE); 2.50 – 3.49 = Effective (E); 1.50 – 2.49 = Less Effective (LE); 1.00 – 1.49 = Not Effective (NE)

First in the list with the highest mean is to demonstrate and explain the procedure of starting Freshwater Generator, and Main Engine, berthing the vessel, and planning the voyage, It is because of the more stringent requirement that the Standard Training Certification on Watchkeeping (STCW) Maritime school should complete all the necessary equipment that the MARINA-CHED required, like Engine and Bridge simulator and should be used by the student within training area because these are the fundamentals learnings acquired by student.

The second that got the Highest WM is to Demonstrate and explain the procedure of starting Freshwater Generator, and Main Engine, berthing the vessel, and planning the voyage if is because the Maritime students are much interested in a practical teaching, they learn much by seeing the machineries or by navigating the vessel by simulator

Tuna, et al [6] PBL (Problem-Based Learning) is a learning method based on the notion of using problems as a beginning point for acquiring and integrating new information. PBL has been effectively implemented in a variety of fields and academic institutions around the world. PBL's goals are to increase students' knowledge, abilities, and attitudes through some kind of "Student-Centered" approach.

On the other hand, the procedure of the assessment and rubrics are available (3.20), followed by the Allotting sufficient time for briefing and de-briefing for the assessment (3.23) and Giving enough time for the practical assessment and Score and method in the performance are explain after the assessment (3.25).

Knight [7] cited in his paper that students' academic work can be used to assess their progress toward information literacy learning objectives. A rubric is a useful assessment tool that allows for impartial and trustworthy analysis and comparison.

First in the list with the lowest mean is the procedure of the assessment and rubrics are available it is because not all the student are familiar with the rubric, it is needed to explain in the briefing and de-briefing as in the implementation the briefing and de-briefing got the least in the rank due to the time constrain conducting the assessment

Second lowest to the WM is Allotting sufficient time for briefing and de-briefing for the assessment (3.20), One of the factors that affecting the failure of the student in assessment is the lack of time in briefing is the major factor because in this area the assessor will explain the assessment plan and what kind of assessment that the assessor will conduct

Ennic, [8] said that when performing your own vocational exams, it is critical that you always complete the pre-assessment briefing. You can double-check that nothing was forgotten during the planning step. It's possible that these are small difficulties that are resolved throughout the talk. It could, however, be about crucial medical information or unique learning requirements, putting the learner at risk. Giving enough time for the practical assessment, and Score and mistake are explained after the assessment are the third in the lowest WM because of the time constraint.

The use of simulators in educational settings for teaching abilities that must be transitioned to a professional work practice is an instructive and archetypal example of how the advent of high-end technologies generates new problems for instructors. Specifically, the research questions concern how people who participated orient towards clear guidelines from the potential future briefing phase in the subsequent scenario and debriefing phases of training, taking into account how the simulator environment's social and material resources organize the learning activities. As a result, the findings emphasize the importance of both in-scenario instructions and post-simulation debriefing in facilitating learning toward a profession. Furthermore, the findings highlight how simulator technologies enable instructors to continually monitor, correct, and evaluate students' activities in relation to learning outcomes [9].

The main aim of a rubric is to evaluate a student's work or performance. To properly assess the learning objectives, rubrics can be adjusted to each assignment or the whole course. Because rubrics may be tailored and customized, they can be utilized for almost every assignment and course; in other words, a rubric can be a one-size-fits-all tool. For both the instructor and the student, learning how to properly design and apply a rubric will result in a more efficient and uniform grading process. The fact that a rubric's primary goal is to assess a student's work systematically and objectively should make it an essential teaching tool. As the STCW set the standard for assessing the student the instrument that they give it should be use for all the maritime school in the Philippines

With the STCW'95 shifting seafarer training closer to outcome-based training, emphasis has shifted to evaluation practices that will enable

seafarer college students to exhibit their ability to operate place of business duties at requirements described in the STCW Code. This paper argues that genuine evaluation comprising of performance-based duties utilized in real-world and significant contexts can supply a holistic strategy to competence evaluation for seafarers. But genuine evaluation can seize necessary elements of place of job duties and result in consistency of scholar overall performance in extraordinary contexts only if they are legitimate and reliable. Rubrics as assessment equipment are regarded to make bigger validity and reliability of assessments; however, it can do so only if distinctive factors of its validity and reliability have been addressed.

In recent years, the essential role of have an impact on assessment devices in worldwide coverage integration projects has been solidified. Linked to this tendency, but also reflecting political emphasis on increased responsibility in certain policy areas and a renewed focus on monetary competitiveness Demand for proof that these gadgets are beneficial has increased in Western countries (however defined). However, the resurgence of assessment activity has not been followed by the conceptual characteristics needed to address long-standing theoretical problems associated with such activities. In order to improve the accuracy of effectiveness evaluations, have an effect on assessment contraptions this article significantly examines the very looked problem of their political charter.

Seafarers, such as deck officers and engineers, function merchant ships round the world. Each one has specific, multiple, and different jobs and obligations to perform. The desires of ship-owners – who choose to be positive that their personnel are properly trained, skillful, and reliably working their ships – resulted in advent of a certification system. Initially, each government established their own training, certification, and watch-keeping standards for officers and ratings, often with reference to norms in other nations. As a result, needs and strategies differ greatly [10]. But the reality that the service provider delivery traditionally has been the most worldwide of all industries wanted a harmonized single popular of certification.

Increasing regular occurring requirements has constantly been identified that the excellent way to enhance security at sea is developing worldwide

guidelines that are followed through all shipping nations. In 1948 the United Nations installed the Inter-Governmental Maritime Consultative Organization (since 1982, the International Maritime Organization (IMO)). The authentic imaginative and prescient of IMO used to be to enhance security by enhancing technical factors of shipping. It used to

be no longer till the early 1970s, when information confirmed that the fundamental element in maritime accidents used to be and persevered to be the human element, that IMO officers tried to curb accidents by means of putting requirements of education for seafarers [11].

Table 3
Relationship Between Implementation of the Maritime School Conducting the Practical Assessment and Effectiveness of the Assessment

	r-value	p-value	Interpretation
Implementation and Effectiveness	0.995**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

Table 3 shows the relationship between level of implementation and effectiveness. It was observed that there is a Highly significant relationship as revealed by the resulted r-value of 0.995 which indicates a strong direct correlation and the computed p-value of 0.000 was less than 0.01 alpha level. This means that a significant relationship exists and implies that the better the implementation, the more effective are the instruments.

The instruments set by the MARINA are very important. In this table interpretation was highly significant it because when a maritime school implement the standard assessment MARINA set the learning of the student will be effective therefore the assessment will be effective

The purpose of assessment O'Donovan [12] to turn out to be so immersed in the job

of teaching that everyone loses sight of the precise motive of a precise thing of assessment. There is then the possibility that present time assessor are now not accomplishing that purpose, or they we neglect another form of assessment which might be more appropriate. Assess students for a variety of objectives, including incentive, generating learning opportunities, providing feedback, grading, and as a quality assurance method. Assessments are usually attempting to achieve all of these things, to various degrees, because they do not separate these aspects of assessment, aside from having truly thought it out. In fact, while it is acceptable for evaluations incorporating the first three of these elements to be done as frequently as possible, the latter two do not need to be completed nearly as frequently; it is, in fact, important that they be completed someplace.

Table 4
Proposed Strategic Plan for the Enhancement of the Implementation of conducting a practical assessment

Programs/ Projects/ Activities	Strategies	Performance Indicators	Office Primary Responsible
1. minimize the number of students per class	Implement an assessment of not more than 40 students per class	Number of students per class regulated	Lead: Head Assessor/ Supervisor
2. conduct a major assessment per grading	Conduct a major assessment 1 every grading period	Major assessment every grading period	conduct Assistant Assessor
3. develop a curriculum that the student can focus more to the major courses	Adopt the relevant planned/curriculum	Planned a relevant curriculum used	Support: Top management Deans' office, STO office
4. Implement strict requirement in the qualification of assessor.	All instructors and assessors enhance their qualification by higher level of studies & training	Qualification of assessors enhanced	Budget Office

1. Provide Survey on practical assessment	Conduct survey after the assessment	Survey on practical assessment done	Lead: Head Assessor / Supervisor Assistant Assessor
2. Require assessment plan	Provide assessment plan to the student 1 week before the major practical assessment	Assessment plan provided	Support:
3. Familiarized students on courses at their first-year level	Develop a course familiarization of the equipment or instrument in their 1 st year at maritime school	Familiarization on the equipment/ instrument done prior to assessment	Top management Deans' office, STO office Budget Office,
1. Conduct a seminar for the instructor/assessor for creating a standard rubrics and orientation to the student explaining what is rubrics, Assessment plan requirement, etc.	Review / Plan on rubrics and assessment provided	100% of staff are trained, 100% of heads, 1 training per quarter	Lead: Head Assessor / Supervisor Assistant Assessor
2. Orient the student before and after the assessment	Conduct regular student orientation on assessment		Support: Top management Deans' office, STO office Budget Office,
3. Set appropriate time for practical assessment	Use appropriate time per practical assessment done		

CONCLUSION AND RECOMMENDATION

The maritime schools showed that student practical assessment was “implemented” in terms of all elements. The instrument used in the assessment of Maritime students are effective. There is a significant relationship as to the Maritime Schools’ implementation of the practical assessment and Effectiveness of the Instrument used. A strategies plan to enhance the effectiveness of the implementation based on the prescribed guidelines was proposed.

Based on the results, it was recommended for the Maritime school to create an office that focused on the student practical assessment main that the responsibilities are to schedule the practical assessment of the student, assign an assessor to conduct the assessment, and prepared the rubrics of the practical assessment. Practical assessment in Bridge or Engine simulator may limit number of students per group (not more than 3 students per group) and if the practical assessment is about operating or starting machineries, demonstrating safety procedure and oral practical assessment the number of students per practical assessment should be two per group. The school may

discuss the proposed plan for implementation & evaluation thereafter. Future researchers may conduct follow up studies on additional variables

REFERENCES

- [1] Sadler, D. R. (2009). Indeterminacy in the use of preset criteria for assessment and grading. *Assessment & Evaluation in Higher Education*, 34(2), 159-179.
- [2] Ali, A. (2006). Simulator instructor-STCW requirements and reality. *Pomorstvo: Scientific Journal of Maritime Research*, 20(2), 23-32.
- [3] Kolbe, M., Grande, B., & Spahn, D. R. (2015). Briefing and debriefing during simulation-based training and beyond: Content, structure, attitude and setting. *Best Practice & Research Clinical Anaesthesiology*, 29(1), 87-96.
- [4] Fisher, D., & Muirhead, P. (2005). *Practical teaching skills for maritime instructors* (2nd ed.). Malmö, Sweden. WMU Publications.
- [5] Mabuti, N.J., (2013). "Implementation of maritime education and training (MET) : an exploration of human and technological resources challenges

- facing MET in Kenya" *World Maritime University Dissertations*. 258.
- [6] Tuna, O., Cerit, A. G., Kisi, H., & Paker, S. (2002). Problem based learning in maritime education. *IAMU Journal*, 2(2), 14-23.
- [7] Knight, L. A. (2006). Using rubrics to assess information literacy. *Reference services review*.
- [8] Ennis, R. H. (2018). Critical thinking across the curriculum: A vision. *Topoi*, 37(1), 165-184.
- [9] Sellberg, M. M., Ryan, P., Borgström, S. T., Norström, A. V., & Peterson, G. D. (2018). From resilience thinking to Resilience Planning: Lessons from practice. *Journal of environmental management*, 217, 906-918.
- [10] Alop, A. (2004). Education and training or training contra education. In *Proceedings of the 13th International Conference on Maritime Education and Training, St Petersburg* (pp. 5-12).
- [11] Bourne, M., Mills, J., Wilcox, M., Neely, A., & Platts, K. (2000). Designing, implementing and updating performance measurement systems. *International journal of operations & production management*.
- [12] O'Donovan, B., Rust, C., Price, M., & Carroll, J. (2006). Staying the distance': the unfolding story of discovery and development through long-term collaborative research into assessment. *Brookes e-Journal of Learning and Teaching*, 1(4), 1-4.