### International Journal of Research Studies in Education

2024 Volume 13 Number 10, 111-127

# Maritime instructors teaching responsibility and the students' learning performance in maritime schools

Fineza, John John E.

Graduate School, Lyceum of the Philippines University – Batangas, Philippines (john\_fineza@yahoo.com)

Received: 25 May 2024 Available Online: 30 July 2024 **Revised**: 25 June 2024 **DOI**: 10.5861/ijrse.2024.24711

Accepted: 20 July 2024

International Journal of Research Studies in Education
Volume 1 Number 1 January 2012

ISSN: 2243-7703 Online ISSN: 2243-7711

OPEN ACCESS

#### Abstract

This study is focused with the following objectives: to assess the teaching responsibility of the maritime instructors in terms of content knowledge and pedagogy, learning environment, assessment and curriculum, and instruction; to determine the learning performance of maritime students in relation to task-related performance and written work performance; to test the significant relationship between the teaching responsibility of the maritime instructors and the level of learning performance of the maritime students; and to propose plan of activities to strengthen the teaching responsibility of the maritime instructors. The total of 36 faculty and 231 students or the grand total of 267 respondents received and answered the survey questionnaire during the distribution. This was obtained through the use of the Raosoft calculator sample size. The data were quantified using a 4-point Likert Scale. The results and mean were utilized to understand better the teaching responsibility of the maritime instructors in terms of content knowledge and pedagogy; learning environment; assessment and curriculum and instruction and the level of learning performance of maritime students in relation to task-related performance and written work performance. The data gathered were analyzed based on the objectives of the study using frequency distribution, weighted mean, Spearman rho. The findings in this study show that: the respondents strongly agreed that the teaching responsibility of the maritime instructors in terms of content knowledge and pedagogy, learning environment, assessment, curriculum and instruction are clearly manifested. The respondents affirmed that the maritime students learning performance in relation to task and written work performances is very good. There is a significant relationship between the maritime instructors' teaching responsibility and students' learning performance. Finally, a plan of activities has been proposed to strengthen the maritime instructors' teaching responsibility. Furthermore, the study recommended that motivating students should always be part of the instructors' responsibilities in order to stimulate students' interest and enthusiasm in reaching their full potential as future leaders, professional mariners, and successful seafarers. Teaching strategies may still be modified to add variety to the traditional lecture-discussion method, but instructors must still provide activities and projects that

improve students' task and written work performances. Instructors may provide higher level of engagement to maritime students to gain their interest towards the subject being discussed.

Keywords: maritime instructor's teaching responsibility, students' performance, content knowledge and pedagogy, learning environment, assessment, curriculum and instruction, task related performance, written work performance

## Maritime instructors teaching responsibility and the students' learning performance in maritime schools

#### 1. Introduction

The education sector is one of the corporate groups that provides services to shape and craft children into decent citizens of the country. It is the type of business where people learn positive ideals as well as numerous approaches and strategies that they may apply when they start their own personal venture in life. These beliefs, approaches, and strategies are often instilled among learners in all educational institutions through teaching methods that each instructor use when delivering classes. Teaching is a difficult job in which the teacher's performance is influenced by her or his personality. If the teacher is to fulfill her or his duty particularly successfully, she or he must have a distinctive gift and sense of vocation.

Nappo (2019) mentioned that numerous studies have been conducted over the last 30 years to address the issue of excellent teaching in higher education. Case studies of best practices have been explored, and problems about assuring quality in higher education, such as how to encourage students to be active co-creators of the study process, have been discussed. Various elements of teaching and learning, and methods for improving teaching have been proposed for the enhanced performance on the part of the students. Giving emphasis on certain factors of excellence in university education specifically in marine transportation and technology will surely assist educators in understanding their roles as instructors and the roles of the students as well in ensuring high quality performance. More importantly, education is a beneficial and effective investment in the effort to increase the quality of human resources. Quality education has a significant effect on the value of human resources and the prospect of civilization. It can be realized through a suitable method that is impacted by both internal and external influences. Teachers' quality and productivity as a stimulator of the educational process is one of the most important criteria for great education. A teacher's quality can be enhanced if he is very pleased with his work environment. Teachers will be more willing and capable of achieving excellent learning for quality education in this manner.

The educational system's philosophy is progressively shifting internationally toward a continual learning process. For progress and development, contemporary society needs teachers who are increasingly skilled and specialized. These will undoubtedly be a defining moment in pupils' academic success. It is a critical mission system, principally an academic level training system that guarantees the necessary techniques and knowledge for a better enlightened society with a higher level of knowledge and regular interaction with the most recent research and technological advancement. Teachers must choose which instructional strategies are best appropriate for their student population and the types of courses they teach.

A school, from an organizational standpoint, is a type of company whose objective is to help students succeed. Teachers' professional duties extend beyond teaching and include accountability for student results. For example, Lauermann et al. (2014) established four unique elements of teacher accountability: responsibility for student accomplishment, motivation, positive connections with students, and instructional quality. These authors also provided proof for a theoretical and empirical distinction between teacher self-efficacy and accountability beliefs, which correlate to teachers' confidence in their ability to instruct. Despite a positive association between these two factors, instructors' conviction in their ability to produce desired outcomes (i.e. self-efficacy) did not necessarily correspond to a sense of accountability for these goals, and vice versa. Making use of this, the current study focuses on its conception of teacher accountability and responsibility in correlation with major predicted antecedents (teacher views and their students' beliefs) opinions of the school atmosphere as well as its links to instructors' performance endorsed teaching approaches and occupational well-being indicators. Teachers that accept ownership and responsibility for educational outcomes promote mastery-focused strategies in the classroom, which have been proved to be effective in motivating and supporting students' academic success.

These findings confirm and expand on past research demonstrating that instructors' self-efficacy beliefs can influence their instructional behavior as well as their level of work engagement (Woolfolk-Hoy et al. 2009). Indeed, the tested path analysis found that self-efficacy had a direct impact on instructive behavior, proactive personality, and career-choice satisfaction. Furthermore, the findings enhance our knowledge by suggesting that self-efficacy has a mediated impact on the same outcome variables via instructors' personal sense of accountability.

On the other hand, academic achievement of college students is one of the indicators of their capacity to carry out tasks successfully and efficiently. It summarizes how students attained various levels of knowledge or abilities as judged by certain criteria (Laguador, 2013; Garcia et al., 2015). Students' motivation to study is a critical component in obtaining good learning outcomes, which is also a measure of satisfying quality teaching objectives as well as the educational institution's mission and purpose. The students' failure to study the required courses for the Maritime program will have a knock-on effect on their capacity to execute their assignments with zeal and desire for excellence. Having developed learning strategies (Laguador, 2013e; Magtibay et al., 2015), students will always be able to respond to the demands of mediocrity and will be less vulnerable to the negative effects of the environment and fast changing technology.

The Lyceum International Maritime Academy (LIMA) is endeavoring to improve its current situation by providing quality education. Giving pupils learning chances allows them to increase their knowledge, develop their abilities, and find new skills and capabilities (Britiller et al., 2014). As a result, in maritime higher education institutions such as LIMA, sea experience might help answer the question of what to teach students. While a technical mastery of the material is necessary, a marine instructor must also be able to convey this technical knowledge in order to foster excellent learning. Maritime institutions should engage qualified professors and lecturers with necessary skills who meet the required level and competency criteria. Given the following concepts and ideas that Marine Transportation students and instructors may face, the researcher will try to investigate how the maritime instructors' responsibility in teaching may contribute to maritime students' academic performance in some manner. Knowing the different information obtained from actual experience and observation of the researcher will give a foundation for future development and improvement of knowledge, abilities, and attitudes toward achieving the objectives set forth for this study. Innovative teaching practices are concentrated on equipping instructors for them to be able to respond to change. It has also required instructors to consciously center on the provision of issues that improve the academic performance of the students. However, the researcher believes that improvements and enhancement to teaching must still be ensured despite everybody experiencing a crisis brought about by the pandemic. Therefore, it should be done in a systematic and disciplined way in the two maritime schools in Batangas Province.

The researcher strongly affirmed that the best assets of any school is its teachers and students. The researchers chose to conduct the study based on these premises. The study's findings could serve as the foundation for a concrete plan of activities to strengthen the teaching responsibility of the maritime instructors. It is along with these concerns that the study is directed.

Objectives of the Study - This study is envisioned to assess the teaching responsibility of the marine instructors in maritime schools and its relation to the students' academic performance. It specifically evaluated the teaching responsibility of the maritime instructors in terms of content knowledge and pedagogy, learning environment, assessment and curriculum, and instruction; determine the learning performance of maritime students in relation to task-related performance and written work performance; test the significant relationship between the teaching responsibility of the maritime instructors and the level of learning performance of the maritime students; and based on the result, the researcher proposed plan of activities to strengthen the teaching responsibility of the maritime instructors.

#### 2. Methods

Research Design - Descriptive research was applied to describe the focus study and respondents accurately. This was the method used to understand the population and its relationship to the problem, explain the phenomenon, and investigate occurrences. It answered the "what" as researcher seeks to define and further understand the problem. Descriptive research is straightforward, and the variables are not manipulated but instead are observed and described as they identify the correlation between the subject and the problem. It was the appropriate method used as the researcher seek to understand the marine instructors' responsibility and the academic performance of the students.

Participants of the Study - The researcher identified the marine instructors and the third-year college marine students of the two maritime schools as the study's respondents. University A had 20 permanent and part time instructors and 197 third year Marine Transportation and Marine Engineering students while University Foundation B Extension had 16 permanent and part time instructors and 34 students third year Marine Transportation & Marine Engineering students. The total of 36 faculty and 231 students or the grand total of 267 respondents received and answered the survey questionnaire during the distribution. This was obtained through the use of the Raosoft calculator sample size. To further localize and demonstrate the research, respondents were those teaching in the said institutions and the students were those who were enrolled in the university for the current semester.

Data Gathering Instrument - The primary data gathering instrument was a self-made questionnaire. The items of the questionnaire were constructed based on readings and concepts of different research that are related to the present study. Other references such as articles, academic journals, and various other reading resources found online were also used to further support and understand the study. The first part of the questionnaire dealt on the teaching responsibility of the maritime instructors in terms of content knowledge and pedagogy; learning environment; assessment and curriculum and instruction with ten (10) indicators per sub domain. The main items on this part of the questionnaire were patterned on the ideas taken from the Result Performance Management System-Philippine Professional Standards for Teachers of the Department of Education. The second part was all about the learning performance of maritime students in relation to task-related performance and written work performance with ten (10) indicators per sub-domain. This was done to further determine how the teaching responsibility of the instructors affects the performance of the students. Furthermore, the questionnaire underwent the reliability test using Cronbach. The respondents were requested to answer the listed statements using a 4-point Likert scale.

Data Gathering Procedures - After considering several possible topics, the teaching responsibility of the maritime instructors in terms of content knowledge and pedagogy; learning environment; assessment and curriculum and instruction and the level of learning performance of maritime students in relation to task-related performance and written work performance are collectively agreed to be the focus of the study. Next, a review of similar subject matter was conducted to formulate the questionnaire and gather references to support the research. The questionnaire was then submitted for validation. The questionnaire was uploaded to Google docs and sent to the instructors and students of the two identified maritime schools via their work emails or Facebook messengers. Once the link was selected or clicked, it would be opened the survey form. After the respondents click "submit", the result was then fed to Google forms and worksheets, where the researcher kept a tally digitally and later analyzed.

Data Analysis - The researcher examined the teaching responsibility of the maritime instructors in terms of content knowledge and pedagogy; learning environment; assessment and curriculum and instruction and the level of learning performance of maritime students in relation to task-related performance and written work performance. The data were quantified using a 4-point Likert Scale. The results and mean were utilized to understand better the teaching responsibility of the maritime instructors in terms of content knowledge and pedagogy; learning environment; assessment and curriculum and instruction and the level of learning

performance of maritime students in relation to task-related performance and written work performance. The weighted mean and rank were utilized to ascertain the maritime instructors' teaching responsibility in terms of content knowledge and pedagogy; learning environment; assessment and curriculum and instruction; and evaluating the level of learning performance of maritime students in relation to task-related performance and written work performance. The Shapiro-Wilk Test revealed that the p-values for all variables were less than 0.05, indicating that the data set was not regularly distributed. As a result, Spearman rho was employed to test for a significant association between the marine instructors' instructional responsibilities and the degree of learning performance of the maritime students. SPSS version 26 was used for all analyses. After careful review, conclusions were drawn from these outputs, these were used to propose activities to strengthen the teaching responsibility of the maritime instructors.

Ethical Considerations - While conducting this study, two (2) primary considerations were observed and practiced. First, Data Privacy was ensured and maintained throughout the research. The respondents were guaranteed confidentiality and that the data gathered were used for the research only. Respondent's names were collected but only as an option. Second, safety and security were not compromised to protect the respondents and the business. COVID-19 protocols compliance was strictly followed to safeguard the respondents from getting infected.

#### 3. Results and discussion

**Table 1**Teaching responsibility of the Maritime Instructors in terms of Content Knowledge and Pedagogy

Indicators	WM	VI	Rank
The instructor			
1. presents lessons in logical manner to help students understand the lesson clearly.	3.88	SA	1
2. utilizes instructional aids in presenting the lesson.	3.55	SA	10
3. provides follow up questions to further elaborate students' responses.	3.87	SA	2
4. gives cues and links during classes for better understanding of the lesson.	3.70	SA	9
5.Uses pedagogical approaches in presenting the lesson.	3.71	SA	8
6. Explains facts and theories from the written sources of activities.	3.75	SA	6
7. Follows one or only two instructions in a sequence.	3.75	SA	6
8. Uses motivational techniques to arouse students' interest.	3.75	SA	6
9. Allows students to recognize important features and concepts while doing different activities.	3.76	SA	4
10. Helps students to discover predictions in the different concepts encountered.	3.77	SA	3
Composite Mean	3.75	SA	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 1 presents the assessment of the teaching responsibility of the maritime instructors in terms of content knowledge and pedagogy. The composite mean of 3.75 and verbal interpretation of strongly agree indicates that the maritime instructors are responsible in the content and the pedagogies they are using among their students. Among the items cited, presenting the lessons in logical manner to help students understand the lesson clearly got the highest mean score of 3.88 and verbal interpretation of strongly agree. This is a clear manifestation that the respondents believed that better understanding would take place when the lessons are logically presented. It also encourages them to participate actively in class. In this sense, they become more active and involved if they see that their instructors are really doing their best in teaching them. In this manner, the teacher needs to be creative in preparing their lessons to maximize the learning outcome.

This was followed by the statement that the maritime instructors are responsible in providing follow up questions to further elaborate students' responses with the weighted mean of 3.87 and verbal interpretation of strongly agree. The respondents knew that when their instructors do this, there would be a possibility to achieve the desired result in the teaching and learning process. The respondents believed that their instructors know their capabilities which help them to further understand the lesson. According to Akiri et al. (2018) results, which investigated the impact of instructors' classroom effectiveness on students' academic achievement, successful teachers created higher-performing pupils.

Helping students to discover predictions in the different concepts encountered was in rank 3 with a 3.77 weighted mean and verbal interpretation of strongly agree. It is the responsibility of the instructors to help students to come up with worthy predictions related to the lessons under discussion. This is with so much importance especially to maritime students like them because it is in the nature of their profession. Developing this skill would help them become more adept to their job in the future. This was confirmed by Baumert et al. (2014) who emphasized that stronger content knowledge of instructors leads to higher student accomplishment; better pedagogical content knowledge of teachers leads to higher student achievement. Using pedagogical approaches in presenting the lesson was in rank 8 with a weighted mean of 3.71 and verbal interpretation of strongly agree. Though the respondents strongly agreed in this statement, this still belonged on the least indicators based on the result. This could be attributed to the fact that marine instructors are more likely to teach the actual scenarios in the field that they tend to forget the use of different approaches to teach them. As what Usman et al. (2019), found that the low academic performance of learners in all kinds of Nigerian schools has been narrowed down to the quality of instructors, the teaching process, the efficiency of school administration, and students' indifferent attitude toward their studies owing to diversions that hinder learning development.

Giving cues and links during classes for better understanding of the lesson at 3.70 weighted mean, verbal interpretation of strongly agree ranked 9th. The respondents affirmed that it is the responsibility of their instructors to give them cues so that they can follow the teaching path they want them to go. The instructors must directly guide them while teaching through the content knowledge and pedagogies they are using. However, the item such as utilizing instructional aids in presenting the lesson got the lowest mean value of 3.55. This means that the instructors believe that by doing such they are leading the learners to a better understanding of the lesson. These results demonstrated those of Estimo (2020), which evaluated seafarers-turned-maritime instructors' level of commitment to their responsibilities as teachers as well as their competence levels as determined by self-assessment in regard to Lloyd's list of critical characteristics for maritime educators, namely subject knowledge and technical skills, effective communication, teaching methods, and soft skills. According to the research, sailors-turned-teachers have a bright future as mentors since they help influence the next generation of seafarers. There is a dedication to teaching, as well as the ability to convey information and abilities. However, in order to optimize their teaching abilities, they must always keep up with the latest advances in the marine business in order to give up-to-date inputs and end up making the process of education and learning more accurate and meaningful. As maritime teachers, they must be passionate about their multifarious jobs in order to not only give the goods but also to inspire and generate a positive attitude in their pupils. This research also identified the problems that seafarer instructors face as they shift from marine officers to maritime educators.

 Table 2

 Teaching responsibility of the Maritime Instructors in terms of Learning environment

Indicators	WM	VI	Rank
The instructor			
1. gets everyone's attention before beginning the class.	3.91	SA	1
2. Establishes rules and procedures in the classroom for the learners to adhere.	3.58	SA	10
3. Gives praise to the entire class as frequently as possible.	3.83	SA	2
4. Intervenes as much as possible to prevent learners' misbehavior.	3.74	SA	9
5. Uses facial expressions and gestures to convey that learners' misbehaviour are not overlooked.	3.78	SA	5.5
6. Addresses instruction and assignments to challenge academic achievement while continuing to assure individual learners' success.	3.80	SA	3
7. is consistent in the application of rules and procedures in the classroom.	3.78	SA	5.5
8. Specifies the praiseworthy aspects of students' accomplishments.	3.78	SA	5.5
9. Helps learners to better appreciate their thinking, problem-solving and performance.	3.78	SA	5.5
10. Demonstrates mastery of the subject matter through the congruency of the objective and assessment of the lesson.	3.76	SA	8
Composite Mean	3.77	SA	

 $Legend: 3.50\text{-}4.00 = Strongly\ Agree; 2.50\text{-}3.49 = Agree; 1.50\text{-}2.49 = Disagree; 1.00\text{-}1.49 = Strongly\ Disagre$ 

Table 2 reveals the teaching responsibility of the maritime instructors in terms of learning environment. This

was supported by the composite mean of 3.77 and verbal interpretation of strongly agree. This is manifestation that the instructors knew their responsibility among the learners especially when it comes to letting them experience a conducive learning environment necessary to achieve the purpose of education. First in rank was getting everyone's attention before starting the class which gained a weighted mean of 3.91. As experienced, It is assumed that instructors were skilled at engaging and linking their pupils to a learning environment in which they might explore ideas, gather and synthesize data, and frame and solve problems. It also indicates that teachers were able to use tactics and approaches that increased students' attentiveness and understanding while they were studying.

The respondents strongly agreed that the maritime instructors are giving praises to the entire class as frequently as possible. They gave this item a weighted mean of 3.83 and this ranked second in the list. In connection to the first item, it is also the instructors' vital role to uphold a learning environment that will enable them to have more learning opportunities and productive learning experiences. Moreover, encouragement is one of the most effective strategies a teacher can employ. It is frequently the key to unleashing latent potential in youngsters, particularly those who struggle with learning. It is critical to keep pupils on track once they have demonstrated progress toward their goals. Giving verbal praise is an excellent method to encourage pupils who are making progress on their learning path. Likewise, the instructors addressed instruction and assignments to challenge academic achievement while continuing to assure individual learners' success garnered a weighted mean of 3.80 with the verbal interpretation of strongly agree and was ranked third. This finding is attributed to the fact that teachers believe that in making an orderly and productive classroom management, it is essential to instigate interpersonal relationships and by proficiently adapting to whatever academic condition may happen.

Demonstrates mastery of the subject matter through the congruency of the objective and assessment of the lesson got the weighted mean of 3.76 and ranked eighth. This result indicates that the instructors are capable of evaluating their students' abilities and know how to improve their level of achievement which thereby enables them to employ more effective teaching methods. However, since it was ranked eight, it may be inferred that this can sometimes be overlooked by teachers. Congruent instructions are critical for educators to use because aligning activities and assessments saves time by enabling students to concentrate on skills that are pertinent to the learning objectives. Instructors can ensure that the course objectives have been clearly defined from the beginning of the curriculum by giving a table for the module. Asunda et. al.,(2015) highlighted that it is necessary to properly match instructional components learning goals, instructional practices, and assessment techniques to assist students achieve the desired learning outcomes, which can be associated to the result of the present study.

Intervenes as much as possible to prevent learners' misbehavior ranked ninth with 3.74 weighted mean and verbal interpretation of strongly agree. This indicates that the teachers are successful in establishing a disciplined learning environment where students know their limitations and boundaries. Teachers were able to create relationships with the learners which allowed them to assist them in learning while controlling their emotions. As stated by (Erdem et. al.,2019), positive relationships help students grow emotionally and empower them to make responsible judgments in their classroom interactions. Last in rank was establishing rules and procedures in the classroom for the learners to adhere as indicated by the weighted mean of 3.58. This could be due to the fact that by doing such they are leading the learners for a better understanding of the lesson.

These findings were consistent with those of Usman et al. (2019), who discovered that educational environment as a factor that makes a significant contribution be it positively or adversely to students' academic achievements has been overlooked in the struggle to find a long-term solution to the country's education system's persistent lackluster results. But since learning environment has lately emerged as an important area that should be examined and carefully maintained in order to improve students' academic performance. Using a secondary research technique, they investigated the influence of classroom experiences on academic achievement of students in Nigeria. According to the findings, the learning environment has a considerable impact on student academic achievement. Based on these findings, recommendations for improving the learning environment, such

as enough funding for the education sector, competent monitoring of school activities, and frequent training/retraining of staff, are made.

Table 3 displays the teaching responsibility of the maritime instructors with respect to assessment. The respondents strongly agreed that the instructors were highly competent in this attribute with a composite mean of 3.78. First in rank was that the instructors strongly agreed that they designed, selected, organized and used diagnostic and periodic assessment strategies consistent with curriculum requirements which got a weighted mean of 3.92. The instructors show excellent understanding and demonstration of the importance of assessment in the beginning up to the end of the learning process. Assessment also provides instructors with immediate feedback, allowing them to adapt their teaching methods to the learning patterns of their students.

 Table 3

 Teaching responsibility of the Maritime Instructors in terms of Assessment

Indicators	WM	VI	Rank
The instructor			
1. Designs, selects, organizes, and uses diagnostic, periodic assessment strategies consistent with curriculum requirements.	3.92	SA	1
2. Monitors and evaluates students' progress and achievements using learner attainment data.	3.57	SA	10
3. Strengthens learners to boost their interest because facts are meaningfully presented and can be connected to daily life.	3.84	SA	2
4. Meets the "good performance" which means a performance that lies above their previous achievement level.	3.74	SA	9
5. Uses strategies for providing timely, accurate and constructive feedback to improve learners' performance	3.78	SA	6.5
6. Communicates promptly and clearly the learners' needs, progress and achievement to key stakeholders including parents/guardians.	3.78	SA	6.5
7. Utilizes assessment data to inform the modification of teaching and learning practices and programs	3.80	SA	4
8. Applies skills in the effective communication of learners' need, progress, and achievement.	3.75	SA	8
9. Leads colleagues to explore, design and implement effective practices and programs using information derived from assessment data.	3.80	SA	4
10. Promotes learning on the practical aspect of the content and application skills and apply it in their daily lives.	3.80	SA	4
Composite Mean	3.78	SA	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Next on the list was that the instructors strengthened learners to boost their interest because facts are meaningfully presented and can be connected to daily life. This was substantiated by the weighted mean of 3.84. They are doing their best to come up with something new and up to date assessment tools. They believed that doing such would bring the learners to success. This lends credence to the idea advanced by Harackiewicz et. al. (2016) that interest is a major driver that uplifts learning, defines academic and professional paths, and is vital to academic accomplishment. It is characterized as increasing attention, focus, and impact towards a particular thing or theme, as well as a consistent inclination to regroup over time. Hence, teacher preparation, encouraging interest interventions, and responsibility for interest all lead to an immersed, driven educational experiences.

Utilizes assessment data to inform the modification of teaching and learning practices and programs; leads colleagues to explore, design and implement effective practices and programs using information derived from assessment data; and promotes learning on the practical aspect of the content and application skills and apply it in their daily lives were all ranked fourth with a weighted mean of 3.80. The respondents strongly agreed that the instructors make use of the assessment data as a basis for the improvement and further development of their teaching strategies. More importantly, they collaborate with each other in order to come up with a comprehensive and effective plan to deliver quality education to students. It is a good indication of Patzer's statement which accentuated the benefits of collaborative techniques between teachers in classroom management and overall job performance. In this vein, teachers observe how students absorb lessons and how they utilize and apply it on different academic aspects. More so, instructors conduct systematic measures for handling and boosting students during the learning process.

Eighth in rank was that the instructors applies skills in the effective communication of learners' need, progress, and achievement which recorded a weighted mean of 3.80 and verbal interpretation of strongly agree. This goes to show that the teachers ensure that the students are aware of their strengths and weaknesses and helps them in improving and changing these aspects. Similar to the idea of Khan et. al.,(2017), these communications are intended to assist and improve learning. It is intended to be an ongoing process that offers detailed information about a child's strengths, areas for development, and what needs to be done to guarantee sustained improvement and higher levels of performance.

On the ninth place was the fact that instructors meet the "good performance" which means a performance that lies above their previous achievement level. This garnered a 3.74 weighted mean. This implies that instructors continuously improve themselves and strive for better teaching performance. As a result of their self-evaluation and assessment, they are able to identify their strengths and weakness and utilize this knowledge to enhance their skills and competencies in order to meet excellent performance standards and to deliver quality education to students. This can be associated to the study of Washington (2019) which highlighted that obtaining and integrating professional growth in the twenty-first century is crucial for keeping learning current, developing teacher leaders, and adding to the corpus of education research.

Lastly, the respondents strongly agreed that the instructors' responsibility also lies on monitoring and evaluating students' progress and achievements using learner attainment data. Because self-assessment is described in cognitive research as a characteristic that happens also in connections with others, it is critical to encourage other students to participate in the assessing process. The findings of a question on mutual evaluation created by learners about other students demonstrated that such an analyzing strategy is credible if such an opportunity is offered and standards are specified. Choosing a purpose and the capacity to deepen self-experience are crucial attributes to assess in the behaviors of other pupils. During this process, collaboration strengthens and mutual understanding is formed.

 Table 4

 Teaching responsibility of the Maritime Instructors in terms of Curriculum and Instruction

Indicators	WM	VI	Rank
The instructor			
1.Prepares developmentally sequenced teaching and learning processes to meet curriculum requirements.	3.90	SA	1
2. Plans, manages and implements developmentally sequenced teaching and learning processes to meet curriculum requirements and varied teaching contexts.	3.54	SA	10
3. Identifies learning outcomes that are aligned with learning competencies.	3.85	SA	2
4. Masters the content they are working on before moving to a new topic.	3.74	SA	9
5. Coordinates with the learners to achieve accurate results during activity periods.	3.77	SA	6
6. Assesses areas that need extra efforts like remedial or enhancement programs.	3.76	SA	7.5
7. Demonstrates knowledge of the implementation of relevant and responsive learning programs.	3.78	SA	4.5
8. Appreciates different approaches integrated in the instructions across curricular areas.	3.76	SA	7.5
9. Evaluates the strengths and weaknesses that make them realize the importance of learning.	3.80	SA	3
10. Uses set ups on particular instructional groupings like collaborative learning and brainstorming.	3.78	SA	4.5
Composite Mean	3.77	SA	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 4 divulges on the teaching responsibility of the maritime instructors in terms of curriculum and instruction. The composite means of 3.77 proved that the instructors have responsibilities to the students while they take responsibility also in the implementation of the curriculum which considered as the one of the backbones of teaching. As reflected from the table, first in rank was that the instructors are responsible in preparing developmentally sequenced teaching and learning processes to meet curriculum requirements as it obtained a weighted mean of 3.90. This shows that the teachers prepare high-quality instruction and effective lessons as required for any learning experience. They employ a variety of sources to identify instructional objectives, or what they want the students to learn, including school or district requirements and specific student needs. Instructional design is anticipating and planning for the requirements of learners as they progress through

a learning experience step by step. Proper learning sequencing creates a smooth, progressively progressive learning journey in which each tiny step helps the learner to be successful in a continual manner (Cuevas, 2021).

Second in rank with the weighted mean of 3.85 and verbal interpretation of strongly agree was identifying learning outcomes that are aligned with learning competencies. The instructors exhibited competence in allowing students to build and display their knowledge through learning activities as well as in selecting and creating exercises that enable students to go through a variety of levels of difficulty as they attempt to get a better grasp of a topic. Similarly, third in rank was the fact that instructors are responsible for evaluating themselves on the strengths and weaknesses that make them realize the importance of learning as shown by the weighted mean of 3.80. Aside from assessing students, it is also the instructors' responsibility to evaluate themselves in order to identify the aspects that need to be improved for better teaching. It also includes evaluating one's accomplishments and making modifications in response to changes in circumstances.

In the seventh rank was the fact that the instructors appreciate different approaches integrated in the instructions across curricular areas and assess areas that need extra efforts like remedial or enhancement programs with the weighted mean of 3.76 and verbal interpretation of strongly agree. This could be due to the fact that instructors are continuously learning to adapt to sudden paradigm shifts in the field of education. Nonetheless, they are capable of modifying teaching techniques to the requirements of diverse learners that may be able to help all students under their care. Also, they make sure to identify the key aspects that learners need to improve and provide interventions and platforms to aid them. The study of Asio et. al.,(2020) coincides with this result since it was revealed in their research that teachers must make extra efforts to enrich their lessons from time to time and develop supplementary learning materials that can deepen the understanding of learners on a certain topic.

This was followed by the statement that the instructors master the content they are working on before moving to a new topic with the weighted mean of 3.74. This means that the instructors knew their responsibilities when it comes to the implementation of the curriculum which is a contributory factor in the success much needed by their students. As explained by Rice et al. (2016), To assist students in constructing meaningful cognitive maps, relating one notion towards another, and correcting mistakes, instructors must have a comprehensive and flexible mastery of the subject matter. Teachers must understand how concepts relate beyond domains and into everyday life. This understanding sets the stage for academic topic knowledge, assisting educators in making topics intelligible to others. Lastly, the fact that the instructors plan, manage and implement developmentally sequenced teaching and learning processes to meet curriculum requirements and varied teaching contexts got the weighted mean of 3.54 and verbal interpretation of strongly agree. Instructors are able to create coursework that meets the requirements of all students while also allowing for individual progress through the combination of content knowledge and students' skills.

 Table 5

 Level of Learning Performance of Maritime Students in relation to Task-Related Performance

Indicators	WM	VI	Rank
The students			
1. Make presentations while utilizing different online applications related to the course.	3.88	VG	1
2. Create portfolios, exhibits for display of their works related to marine transportation	3.52	VG	10
3. Find examples of activities in their independent learning.	3.85	VG	2
4. Absorb and understand the material at a much deeper level	3.72	VG	9
5. Organize information for understanding and remembering	3.79	VG	4.5
6. Exhibit on-task behavior, following the teacher's directives and completing requested tasks.	3.73	VG	8
7.Respond when asked to given verbal, written, or action responses.	3.79	VG	4.5
8. Work productively with partners or team members	3.74	VG	7
9. Provide accurate responses (at least 80% accuracy when new material is presented and at least 90% during review).	3.75	VG	6
10.Exhibit behavior that allows them to learn, their peers to learn, and the teacher to teach.	3.80	VG	3
Composite Mean	3.76	VG	

Legend: 3.50-4.00=Very Good; 2.50-3.49=Good; 1.50-2.49=Fair; 1.00-1.49=Poor

Table 5 describes the level of learning performance of the maritime students in relation to task performance. It generally appears that the level of learning performance of the students was very good as manifested by the composite mean of 3.76. The students affirmed that they do their tasks in relation to how their instructors manage to teach them. In the first rank with 3.88 weighted mean and verbal interpretation of very good is the fact that the students can make presentations while utilizing different online applications related to the course. This is a good indication that the students fully understand the lessons discussed in a sense that that they assimilate their own experiences to the context of the topic and eventually make their own presentations applying different online app that are applicable to their lesson. They perform their task very well.

Moving on to the next item, students can also find examples of activities in their independent learning. It was deemed to be highly manifested by the students as indicated by the weighted mean of 3.85. This shows the students' desire and dedication to learn and accomplish the tasks associated to different learning outcomes. It might be connected to Maina's comment that goal-oriented pupils frequently have favorable sentiments about their educational experiences. In addition, it is generally considered that students who are fully immersed in the learning process tend to assimilate experiences and develop independent learning inside or outside the educational institution. With the rank of 4 were the statements organized information for understanding and remembering; and responded when asked to given verbal, written, or action responses. These obtained a weighted mean of 3.79 and verbal interpretation of very good. This indicates that students are actively participating in discussions and are highly engaged in the learning process. More importantly, it is an indication that students employ critical thinking skills to generate meaningful and productive learning experiences while making their tasks.

Conversely, students' learning performance in terms of exhibiting on-task behavior, following the teacher's directives and completing requested tasks was also reported to be very good. This was ranked eighth with a weighted mean of 3.73. Based on the result, it may be inferred that teachers implement effective instructional approaches for classroom management through the use of course works and guided activities with feedback. In return, students have the initiative to follow and accomplish given tasks. Educators who use instructional strategies help students make meaningful relationships between classroom concepts and real-life situations. They enable pupils to display their knowledge and self-correct as needed (Persaud, 2021). Next would be the fact that students also affirmed that they are very good in absorbing and understanding the material at a much deeper level. This statement garnered a weighted mean of 3.72 and was ranked ninth in the list. This is a good manifestation that learners are able to expound ideas, discern patterns, apply knowledge and abilities in new settings or in novel ways, and be practice critical thinking in their learning experiences. It was discussed by Czerkawski (2017) that deeper learning encourages students' active participation in learning settings, allowing them to continually explore, reflect, and generate information in order to construct complex knowledge structures. This can be clearly observed by the following result.

Finally, the maritime students were also very good at creating portfolios, exhibits for display of their works related to marine transportation. This ranked tenth with a weighted mean of 3.52. Since it was ranked last, it may indicate that students show cumulative efforts in learning through valuable materials that presents their learnings, improvement, and mastery of the course. Along with student reflection, that material gives essential information regarding how each student has learned and what is most important to him or her in the process of learning.

Table 6 presents the level of learning performance of maritime students in relation to written work performance. This has been supported by the composite mean of 3.77 and verbal interpretation of very good which means that the maritime students were doing their work performance with utmost ability and talent. This could have been attributed to the fact that their instructors also did their share in the teaching and learning process. This is a two-way process that involved both parties in order to make things work and succeed. The students affirmed that they were very good at adapting themselves on the different strategies used in teaching especially in doing the activities as supported by the weighted mean of 3.89. Thus, this justified that the students are flexible enough to do the written tasks assigned to them provided that their instructors use different strategies

that help in making the lessons easy to understand. More importantly, it denotes that the instructor is successful in accommodating the students' different learning styles. İlçin (2018) asserted that assessing students' learning styles offers information about their particular preferences. Considering styles of learning may help in the development, adaptation, and production of more effective curriculum and educational programs. It may also encourage students to join in these initiatives and gain professional knowledge.

 Table 6

 Level of Learning Performance of Maritime Students in relation to Written Work Performance

Indicators	WM	VI	Rank
The students			
1. Adapt themselves on the different strategies used in teaching especially in doing the activities.	3.89	VG	1
2. Develop intellectual capacities that enable them to participate in the class.	3.58	VG	10
3. Engage themselves in written task to show their talents.	3.83	VG	2
4. Explain learning principles as they alternately appear to the context of the teaching process.	3.72	VG	9
5. Draw conclusions and make generalization based on the lesson taught in written form.	3.76	VG	7
6.Attain higher order thinking and learning on a consistent basis through writing.	3.75	VG	8
7.Understand the lesson in a manner that is well written based on standards.	3.80	VG	3.5
8. Promote collaboration to other learners in the form of narratives and the like.	3.79	VG	5
9. Show the actual learning and first-hand experiences through the written outputs submitted.	3.80	VG	3.5
10. Concretize abstract principles and laws related to learning.	3.78	VG	6
Composite Mean	3.77	VG	

Legend: 3.50-4.00=Very Good; 2.50-3.49=Good; 1.50-2.49=Fair; 1.00-1.49=Poor

On the next rank was the fact that the students engaged themselves in written task to show their talents as substantiated by the weighted mean of 3.83 and verbal interpretation of very good. This is a clear manifestation that they want to showcase their talents provided that they are given the opportunity to do so. . It is also a sign of a positive learning environment in which students may express themselves via various mediums.

Third, the students can show the actual learning and first-hand experiences through the written outputs submitted and understand the lesson in a manner that is well written based on standards. Both statements were supported by the weighted mean of 3.80 and verbal interpretation of very good. It means that the students understand what is the importance of outcome-based learning wherein they can show what they have learned on the outputs that they have done. Also, in this manner, the outcomes-based evaluation allows students to apply their knowledge and abilities to ill-defined challenges similar to those encountered in real life. To do so, they must integrate their discipline-based knowledge and abilities with the completion of diverse learning activities. Students develop critical thinking skills by undertaking an outcomes-based evaluation that is indicative of a contemporary challenge that an expert in the area could face (Gaskin, 2022).

Students also can attain higher order thinking and learning on a consistent basis through writing. This was proven by the weighted mean of 3.75 and verbal interpretation of very good. In doing written work performances, it is important that the students have developed higher order thinking skills. This could be achieved through the guidance of their instructors. It is very important for marine transportation students to know about basic writing skills in order for them communicate and express their ideas in the field of their chosen work.

Next with the weighted mean of 3.72 was the fact that the students can explain learning principles as they alternately appear to the context of the teaching process. As students develop within themselves the knowledge and the skills in writing, it would not be difficult for them to explain the underlying principles related to their course. The more these learning principles are expounded, the more effective the teaching process is. It is a must for maritime students to build their written communication skills in such a way that the people around them or they are working with would be able to understand them.

Lastly, the students were also very good at developing their intellectual capacities that enable them to participate in the class. This got the weighted mean of 3.58. This means that as students build their writing skills, the more capable they are in getting to discover how to express themselves in class and giving them the

opportunity to grow and develop.

All of these findings were validated by Taberdo et al. (2018), who emphasized that establishing policies targeted toward student progress is a crucial component to guaranteeing great education. Students' academic success may also be utilized to evaluate the quality of instruction given by the institution. Relying on the semester report on grades, freshmen performed well in professional subjects and extremely well in courses in general education and aptitude for service, according to the research. Furthermore, in professional and general education courses, there is no significant distinction in academic achievement between those with and without a college experience, although those with a college background performed better in aptitude for service. As an outcome of the findings, the administration may propose rewarding the units earned by college-educated pupils. To increase learner motivation in professional courses, they should invest in more technology laboratory apparatus, such as simulators. Additionally, the institution must improve its instruction and evaluation of service abilities.

 Table 7

 Relationship between the teaching responsibility of the maritime instructors and the level of learning performance of the maritime

Paired Variables	rho-value	p-value	Interpretation
Task-Related Performance			
Content Knowledge and Pedagogy	0.764**	0.000	Highly Significant
Learning environment	0.801**	0.000	Highly Significant
Assessment	0.827**	0.000	Highly Significant
Curriculum and Instruction	0.836**	0.000	Highly Significant
Written Work Performance			
Content Knowledge and Pedagogy	0.775**	0.000	Highly Significant
Learning environment	0.823**	0.000	Highly Significant
Assessment	0.834**	0.000	Highly Significant
Curriculum and Instruction	0.837**	0.000	Highly Significant

<sup>\*\*.</sup> Correlation is significant at the 0.01 level

Table 7 shows the association between teaching responsibility and students' learning performance. The estimated rho-values show a high positive correlation, and the resulting p-values are smaller than the alpha level of 0.01. This implies that there is a significant relationship between teacher responsibility and student learning performance. This implies that the teaching responsibility may contribute to the level of learning performance of maritime students.

 Table 8

 Proposed Plan of Activities to Sustain the Teaching Responsibility of the Maritime Instructors

Areas of	Objectives	Suggested	Person/s	Time	Performance Measures
Concern		Activities/Strategies	Involved	Frame	
Teaching	Upskill oneself with	Project UPC (Upskilling	Instructors	Beginning	Instructors upskilled
Responsibility of	knowledge of the subject	Proficiency in Content )		of the	themselves of the different
the Maritime	areas/syllabus of concerns	-Familiarizing instructors	Dean	semester	subject areas/syllabus of
Instructors	through constant updating	with the content of the			concern.
	of oneself of the issuances	subject matter found in the	Resource		Instructors applied
	and orders from the	university's syllabus	persons		pedagogical approaches in
Content	university	-Walk through the			teaching to enhance their
Knowledge and	Apply different pedagogies	syllabus/materials and			teaching competence thus
Pedagogy	in teaching that are	discuss with the dean the			improving the learning
	congruent to the	salient points of the material			performance of learners
	competencies and content	so as the unfamiliar			
	areas being taught	contents.			
		-Updating trainings that			
		focus on pedagogical			
		approaches in teaching in			
		the new normal			

Learning Environment	Maintain a learning environment that promote respect, fairness and care to encourage learning	Project LEAP (Learning Environment for Academic Progress) -Providing students with a learning environment where they can freely express themselves as they learn	Instructors Dean Students	Year round	Instructors have maintained a learning environment that promote respect, fairness and care to encourage learning
Curriculum and Planning	Plan, manage and implement developmentally sequenced teaching and learning processes to meet curriculum requirements and varied teaching contexts.	Project CDP-Curriculum Development and Planning -Preparing of sylabuses that are following the sequenced parts to employ the smooth flow of teaching	Instructors Dean	Year Round	Instructors planned, managed and implemented developmentally sequenced lesson plans.
Assessment	Monitor and evaluate students' progress and achievements using students' attainment data.	Project LAAP (Learners' Achievement through Assessment and Reporting)	Instructors  Dean Students	Year Round	instructors monitored and evaluated students' progress and achievements using students' attainment data.

#### 4. Conclusions and recommendations

The respondents strongly agreed that the teaching responsibility of the maritime instructors in terms of content knowledge and pedagogy, learning environment, assessment, curriculum and instruction are clearly manifested. The respondents affirmed that the maritime students learning performance in relation to task and written work performances is very good especially in terms of utilizing different applications in accomplishing tasks and adapting themselves to different teaching strategies. There is a significant relationship between the maritime instructors' teaching responsibility and students' learning performance considering that the resulted p-values were less than the alpha level 0.01 which implicates that instructors teaching responsibility may contribute to the students' learning performance. A plan of activities to sustain the maritime instructors' teaching responsibility has been proposed.

Motivating students should always be part of the instructors' responsibilities in order to stimulate students' interest and enthusiasm in reaching their full potential as future leaders, professional mariners, and successful seafarers. Teaching strategies may still be modified to add variety to the traditional lecture-discussion method, but instructors must still provide activities and projects that improve students' task and written work performances. Digitization of teaching and learning resources may be adapted to enhance the learning experience for both teachers and learners. This could improve accessibility and engagement through customizable and interactive education. Instructors may provide higher level of engagement to maritime students to gain their interest towards the subject being discussed. The proposed plan of activities may be used by the two maritime schools under study to strengthen the maritime instructors' teaching responsibility. The plan of activities may be adopted by the university to enhance teaching performance of the maritime instructors.

#### 5. References

- Akiri, A.A. and Ugborugbo, N. M. (2018), Teachers' Effectiveness and Students' Academic Performance in Public Secondary Schools in Delta State, Nigeria Department of Educational Administration and Policy Studies, Faculty of Education, Delta State University, Retrieved at September 21, 2018.
- Asio, J. M., & Jimenez, E. C. (2020). Effect of Remediation Activities on Grade 5 Pupils' Academic Performance in Technology and Livelihood Education (TLE). Pedagogical Research, 5(4). doi:https://doi.org/10.29333/pr/8464
- Asunda, P. A., & Ware, S. (2015). Applying the Congruence Principle of Bloom's Taxonomy to Develop an Integrated STEM Experience through Engineering Design. *Journal of Technology Studies*, 41(2). doi:https://doi.org/10.21061/jots.v41i2.a.3
- Baumert, J., Kunter, M., Blum, W., Brunner, M., Voss, T., Jordan, A., Klusmann, U., et al. (2014). Teachers' mathematical knowledge, cognitive activation in the classroom, and student progress. *American Education Research Journal*, 47(1), 133-180.

- Britiller, M. C., Ramirez, L. Q., Ramos, F. M. C., Reyes, D. M. C., Salazar, K. D., Sandoval, J. A. M. (2014). Nurse Educator's Affective Teaching Strategies, *Asia Pacific Journal of Multidisciplinary Research*, 2(1), 6-13.
- Cuevas, R. (2021, April 20). How To Use Learning Sequencing To Plan Your Lessons. Retrieved January 10, 2023, from Thinkific: https://www.thinkific.com/blog/learning-sequence-for-lessons/
- Czerkawski, B. C. (2017). Designing Deeper Learning Experiences for Online Instruction. *Journal of Interactive Online Learning*, 13(2), 29-40.
- Erdem, C., & Koçyiğit, M. (2019). Student Misbehaviors Confronted by Academics and Their Coping Experiences. Educational Policy Analysis and Strategic Research, 14(1), 98-115. doi:10.29329/epasr.2019.186.6
- Estimo, Emeliza (2020). Ship to Academe, Seafaring to Teaching: Seafarer Teachers in Maritime Higher Education Institutions in the Philippines. Higher Education Research. Vol. 5, No. 2, 2020, pp. 44-51. doi: 10.11648/j.her.20200502.12
- Garcia, O. B., Agena, E. M., Gonzales, A. A., Reyes, J. A., Salazar, L. R., & Laguador, J. M. (2015). First Year Students' Feedback Survey On Marine Transportation Professional Courses During SY 2012-2013. Asian Journal of Educational Research Vol, 3(1).
- Gaskin, S. (2022, July 06). Outcomes-based Assessment: The Key to Teaching Critical Thinking. Retrieved January 10, 2023, from Pearson:

  https://www.pearson.com/ped-blogs/blogs/2022/07/outcomes-based-assessment-the-key-to-teaching-critical-thinking.html
- Harackiewicz, J. M., Smith, J. L., & Priniski, S. J. (2016). Interest Matters: The Importance of Promoting Interest in Education. Policy Insights from the Behavioral and Brain Sciences, 3(2), 220-227. doi:10.1177/2372732216655542
- İlçin, N. (2018). The Relationship Between Learning Styles and Academic Performance in Turkish Physiotherapy Students. BMC Medical Education, 18, 291. doi:https://doi.org/10.1186/s12909-018-1400-2
- Khan, A., & Zia-Ul-Islam, S. (2017). Communication Skills of a Teacher and Its Role in the Development of the Students' Academic Success. *Journal of Education and Practice*, 8(1), 18-21.
- Laguador, J. M. (2013a). Computer Utilization on Academic Performance, Health, and Behavior of Selected Students Enrolled in Board and Non-Board Degree Programs. *International Journal of Information and Education Technology*, 3(3), 382-387.
- Laguador, J. M. (2013e). Engineering Students' Level of Study Habits and Factors Affecting Them. *International Journal in IT and Engineering*, 1(3), 1-13.
- Lauermann, F., & Karabenick, S. A. (2014). Teacher responsibility: What does it mean for teachers' motivation and emotions? In P. W. Richardson, S. A. Karabenick, & H. M. G. Watt (Eds.), Teacher motivation: Implications for theory and practice (pp. 116–132). New York: Routledge/Taylor & Francis
- Magtibay, D. L. A., Lanto, R. V., Magnaye, A. J. E., Castillo, J. C. M., Baoy, J. V. M., & Caiga, B. T. (2015). Maritime Student Satisfaction on the Instructional Materials Utilized in one Asian Maritime Academy. Asia Pacific Journal of Maritime Education, 1(1), 40-48.
- Nappo, Nunzia (2019). Interpersonal Relationships on and outside of the Job and Satisfaction with Working Conditions in Europe. <a href="https://www.iris.unina.it/retrieve/handle/11588/760084/265118/satisfaction%20wirh%20working%20conditions.pdf">https://www.iris.unina.it/retrieve/handle/11588/760084/265118/satisfaction%20wirh%20working%20conditions.pdf</a>
- Persaud, C. (2021, June 17). Instructional Strategies: The Ultimate Guide for Professors. Retrieved January 10, 2023, from Top Hat: https://tophat.com/blog/instructional-strategies/
- Rice, A. H., & Kitchel, T. (2016). Influence of Knowledge of Content and Students on Beginning Agriculture Teachers' Approaches to Teaching Content. *Journal of Agricultural Education*, 57(4), 86-100. doi:https://doi.org/10.5032/jae.2016.04086
- Taberdo, M. & Taberdo, A., (2018), Academic Performance of Freshmen Maritime Students: Perspective for Policy Formulation on Student's Development, Asia Pacific Journal of Multidisciplinary Research, Vol. 6, No. 2, May 2018.

- Usman, Y.D., Madudili, C.G.,(2019)."Evaluation of the Effect of Learning Environment on Student's Academic Performance in Nigeria. Chukwuemeka Odumegwu Ojukwu University, Uli, Anambra State, Nigeria.
- Washington, B. (2019). The Importance of Professional Development in the 21st Century. *Journal of Professional Development*, 50-54.
- Woolfolk Hoy, A., Hoy, W. K., & Davis, H. A. (2009). Teachers' self-efficacy beliefs. In K. R. Wentzel & A. Wigfield (Eds.), Handbook of Motivation in School (pp. 627–653). New York: Routledge.