

An Action Research on Improving Flexible Teaching – Learning Delivery in Maritime Administration (MARAD) 206 Through Continuous Improvement Process

Anamie Selencio¹, Rita Diloy²

¹Assistant Dean, School of Graduate Studies, Asian Institute of Maritime Studies

²Chair, Research Creative Work, Asian Institute of Maritime Studies

Abstract

The action research was carried out to investigate the areas for improvement in the delivery of Flexible Learning to the School of Graduate Studies in Maritime Administration 206 as students are experiencing disruption of classes due to COVID-19 pandemic. Voice of the customers was obtained through series of structured interviews conducted to the six participants of the study via MS Teams and via Facebook. Two major questions were provided: one on the areas for improvement on the delivery of Flexible learning and the other question on the suggestions on the continual improvement of the process. Thematic Analysis which is adaptable to qualitative research to generate themes was used and four themes that needs improvement with corresponding suggestions were identified such as: a) module content; b) monitoring and supervision of students; c) student's outputs; and d) mode of delivery. The results suggested that module content must be aligned with the STCW standards and provide more examples; on the other hand, there should be immediate and reasonable feedback in terms of the submitted outputs, flexibility on the submission is likewise requested on monitoring and supervision of students. Relative to student's outputs, adequate support from the faculty members and the SGS were suggested. Relative to mode of delivery, distance learning with the available technology was highly recommended specifically for those students who are onboard but should have a clear policies and guidelines.

Keywords: Flexible teaching; Flexible learning; Maritime Administration 206; Asian Institute of Maritime Studies

1. Introduction

COVID-19 pandemic has shaken all sectors including education sector, hence the situation resulted to has affected more than 1.2 billion learners worldwide with more than 28 million learners in the Philippines which brings negative impact on learning opportunities. Education sectors are struggling to find options to deal with challenging situation and an urgent need to respond to the need for continuing education. Commission on Higher Education (CHED) as reported by Cervantes, (2020) will be pushing Flexible Learning which includes digital and no digital learning technology in universities and colleges as a more practical solution for continuing education and no face-to-face classes will be allowed. Thus, schools are now looking into the viability of implementing online classes or flexible learning, including online and

offline courses (Narmada & Somasundaram, 2020). Joaquin (2020), mentioned that colleges and universities have to implement flexible learning that aims to facilitate quality delivery. Toquero (2020), on the other hand, stressed that there is the need for the institution to strengthen the practices in the delivery of the curriculum and make it more responsive beyond conventional classroom. Responses provides diverse solution from social isolation strategy to curriculum development in higher education, Crawford et. al (2020).

On the other hand, Jayaran et al (2015), concluded that revisions of SIM used in distance learning is as important as the development in the field of study, review of the performance should cover in the light of the feedback from the students to make the course more relevant, learner friendly and academically rich. Once the module writer and implementer has identified the problems (i.e., they have a new hypothesis about how to better support student learning), new or existing instructional materials and assessments can be created, adapted, or modified and students are powerful partners and collaborators in continual improvements to the instructional materials. Wiley and Hilton (2018)).

While flexible learning seems feasible and one of the few options for continuing education, there are challenges in the adoption of flexible learning delivery. Folsom, (2020) reported on WestEd E-Bulletin that while there is a lot of research on flexible, distance and online learning, good evidence that high-quality learning can happen in these learning environments, however, all of the research took place in different context than today's. According to her, distance learning during a global pandemic has no precedent. It is a context with no perfectly aligned research to guide our way. In addition, inadequate research in relation to COVID to field of education were conducted and done, according to (Bao, 2020; Sintema, 2020; Yan, 2020).

Maritime Administration 206 is a 3-unit course entitled Educational Assessment, Program Monitoring and Evaluation and Certification This course deals with all the facts of Instructional Evaluation, Assessment of knowledge skills and Attitude-KSA (Competence) and standards, processes. It provides a theoretical and practical overview of evaluation, assessment and supervision and introduces the domains of supervision and inquiry into current issues and best practices in supervision as well as certification. It uses a variety of interactive exercises to assist in the development of practical skills for using the clinical process and developmental approach to supervision, assessment and evaluation and certification. The main purpose of this course is to acquaint the graduate student of education with principles of supervision, evaluation and certification which useful for the refinement of the teaching/learning environment of maritime education and training.

As students are experiencing disruptions caused by COVID-19 pandemic, the Graduate School of Asian Institute of Maritime Studies is taking steps to deliver flexible learning while maintaining program integrity and ensuring mastery of the material to exceed minimum expectations for graduate education. With the current situation in the educational system amidst the coronavirus pandemic and the call for flexible learning, AIMS-SGS has deemed it necessary to explore on the areas for improvement and develop solutions/ corrective actions of the gaps anchored on the voice of the customers for continuous improvement through an action research. According to Young et al, (2013), an Action Research is an applied scholarly paradigm resulting in action for continuous improvement in our teaching and learning techniques, instructional materials used.

The current research attempted to explore and investigate areas for improvement in Flexible teaching-learning delivery including the Self Learning Material used by the participants and develop solution / corrective action to address the gap in the implementation of flexible learning

1.1 Purpose of the Study. The main purpose of the current study is to explore and investigate the areas for improvement and the possible solutions/ corrective actions for implementation of flexible teaching and learning in Maritime Administration 206, the next phase of which is to implement and assess the effectiveness of the solution / corrective action to be developed in this phase.

The following are the objectives:

- a) To identify the areas for improvement in the implementation of flexible teaching-learning in Maritime Administration 206.
- b) To develop solutions / corrective actions to address the gaps for continual improvement.

2. Literature Review

2.1 Flexible Learning. Flexible learning is a pedagogical approach allowing flexibility of time, place and audience, but not solely focused on the use of technology. CMO, (2020). Flexible learning includes approaches such as online learning or blended learning technology. Macro and micro learning approach (a mix of online and offline activities), and self-instructional modules/ mostly offline activities. On the other hand, Shurville (2012) defines Flexible learning as a set of educational philosophies and systems concerned with providing learners with choice, convenience and personalization to suit the learners. 'Flexible provision of higher education refers here to a mode of provision that provides learners with guided choice, in a number of domains, achieved through employment of various strategies including the use of learning and teaching techniques and technologies and the adoption of policies affecting choices for learners.' ('The Effectiveness of Models of Flexible Provision of Higher Education' (2001), DEST, Australian Government) (Department of Education Employment and Workplace Relations, 2008)

Dr. Cleopatra Doumbia-Henry, (2020), president of World Maritime University, told the audience in webinar hosted by the Robban Assafina Magazine, distance learning is a useful modality which helps achieve UN's sustainable development goals which gave hope to maritime community. She even identified three main issues in distance learning delivery, the learner, instructor and curriculum. It was also highlighted that for successful distance learning delivery, students need to regulate their own activities, instructors need to efficiently use available technology, and curriculum needs to align with teaching modes and valid assessments. The importance aligning standards of distance learning program to that of traditional resident programs was also mentioned. She further stressed that there is a continuing need to improve the educational standards of seafarers and to expand access to educational programs at all levels—including postgraduate and doctoral studies, professional development courses, as well as taking into account the legal requirements of the IMO STCW Convention and other relevant instruments. In the same webinar, Professor Baawain, Dean of International Maritime College of Oman (IMCO) in his presentation ensured the importance of the blended learning process, as the online learning is for theoretical parts of the courses, and on campus training is for practical sessions.

2.2 Online Learning. The New Normal in delivering instruction, HEIs have to continue practical and sensible solution by using pedagogical modalities that do not require face to face interaction and physical attendance. Li (2020) reported that research suggest that online learning is an option which has shown to increase retention of information. Bao (2020) on the other hand concludes five high-impact principles for online learning/education: (a) high relevance between online instructional design and student learning, (b) effective delivery on online instructional information, (c) adequate support provided by faculty and teaching assistants to students; (d) high-quality participation to improve the breadth and depth of student's

learning, and (e) contingency plan to deal with unexpected incidents of online education platforms. To respond to the need for continuing education, Joaquin (2020), mentioned that colleges and universities have to implemented policies on Flexible learning that aims to facilitate quality delivery. Toquero (2020) on the other hand, stressed that there is the need for the institution to strengthen the practices in the delivery of the curriculum and make it more responsive beyond conventional classroom. Responses provides diverse solution from social isolation strategy to curriculum development in higher education, Crowford et. al (2020).

According to Kearsley and Moore (2012), distance learning implies a distant and reciprocal interaction between student and teacher. Online learning and e-learning are other terms used in describing distance education. Both terms represent a two-sided relationship between student and teacher which embraces the deliberate goal of helping students to learn through use of the Internet. The online learning experience, comprised of students, instructors, and the course curriculum, require the use of technological tools for accessing the online environment (Ally, 2008).

2.3 Blended Learning. Bonks, (2005) defined that “BL (blended learning) is the combination of instruction from two historically separate models of teaching and learning: traditional face-to-face learning systems and distributed learning systems.” (Kelly & Moore 2012,) concluded that with the existence of Massive Online Open Course (MOOC), blended learning is also applicable to Maritime Education and Training.

2.4 Continuous Improvement. Yukofsky, (2020), concluded that as a result of frustration with the “What Works Paradigm”, researchers, practitioners are increasingly embracing set of ideas and practices that can be labeled Continuous Improvement. Education Reform (2013), said that Continuous Improvement in education refers to the school or instructional improvement process, that does not have predetermined endpoint. The concept of CI is related to the ability and expertise of school leaders, faculty and staff and to action research that helps educators develop adaptive solutions and improvement strategies. According to Susman (2017), increasing number of HEIs are introducing principle of continuous improvement methodologies to enhance the efficiency and operational effectiveness.

3. Methodology

3.1 Research Method. This action research used qualitative method which according to Creswell and Clark (2007), qualitative data will help the researchers understand the processes, provide detailed information about setting or context, and emphasize the voices of participants. Qualitative methods also facilitate the collection of data when measures do not exist and provide a depth understanding of concepts. This will support the researcher in the instrument development which refers to contexts in which qualitative research is employed to develop questionnaire and scale item, so that better wording or more comprehensive closed answers can be generated to gather quantitative data.

The researchers used action research approach via continuous improvement process, assess, analyze and act. The researcher chose this approach to enable the research team to act as partners in the process, with all of the participants sharing views and contributing to the change processes, according to their knowledge and expertise. it was felt to be compatible with the participation and developmental nature of the project and with their desire to empower service users and generate a tangible product. Likewise, qualitative

research approach was chosen because qualitative methods are special beneficial or necessary in discovering the meaning that people give to events they experience according to (Merriam, 1998).

3.2 Role of the Researchers. Basically, in qualitative research studies, the researchers are the primary research instrument. The background and identity of the researchers should be treated as his bias (Maxwell, 2005). Qualitative research studies is interpretive, thus, researchers' biases, beliefs and assumptions can include into analysis of data (Stauss & Coorbin, 1998). The researchers of this action research acknowledge that his beliefs and assumptions as well as work background could influence the interpretation of data. To lessen the personal bias on the results of this action research, the research council helped in the conduct of the research during and after the interview to at least establish the credibility of validity and transferability of the results (Lincoln & Guba, 1985). During the conduct of the interview, the research team, restate and summarize information, to verify the accuracy of the captured information. Participants were also given the chance to review the transcript for accuracy.

3.3 Participants. The participants of the study were purposely selected, since they have direct information about Maritime Administration 206, they were the six (6) students out of ten (10) students enrolled during the first semester of the AY 2020-2021. Purposive sampling represents a group of non-probability sampling techniques. Purposive sampling relies on the judgement of the researcher. Purposive sampling is commonly used in qualitative research. It involves selecting the participants according to the needs of the study. By doing so, the researchers chose participants who can provide quality information that is needed in this action research for continual improvement.

3.4 Research Instrument. The main instrument used in this study is the structured interview which is intended to collect and gather relevant information from the participants taken from MARAD 206 class of the 1st Semester 2020-2021. Protocol consisting of Focused- Group Discussion, structured interview questionnaire, MS Teams, outlook official email, group chat was used to obtain pertinent data which was needed to address the research questions of improving quality instructional materials and the teaching and learning delivery in the new normal. Prior to the FGD was conducted research questions were posted on MARAD 206 GC, MS Teams virtual classroom, sent email to the official outlook account assuring participation and cooperation of the participants. Accomplished FGD questions were asked to email back to the research. After receiving the accomplished FGD questionnaire, a follow -up interview via MS Teams was conducted to ask the participants to further explain and discuss their answers on the FGD questionnaire in a more detailed manner. A non-directive style of interviewing utilizing open ended questions was also used to further clarify unclear ideas presented in their written interview survey. Participants were likewise given the freedom to control pacing. When the researcher needs to clarify some unclear information, a more directive way of questioning was used. Follow -up questions were given as needed. The researchers also made handwritten notes. Before the conduct of the action research, initial pilot testing was done to the non-participants to ensure that the data from research was valid and reliable. Test-retest was done, asking the same question to the same non- participant in more than one occasion, to ensure reliability. Some questions were also asked in different ways to assess the internal consistency. Acceptability was assessed by asking the non-participants on how they found answering the questionnaire during the validity testing.

3.5 Data Collection Procedure. For the collection of data, the researcher asked structured interview questions to the participants. Structured interview questions asked by the researchers to their interest in flexible teaching learning delivery in Maritime Administration 206 course. Data such as field notes, interview transcripts, reflective diaries, and documents were coded through thematic analysis.

3.6 Data Analysis. Thematic analysis was employed in this qualitative action research. This is one of the most common forms of analysis in qualitative research which emphasizes identifying, analysing and interpreting pattern of meaning or themes within qualitative data. Furthermore, there are no specific research designs that is identified with thematic analysis which means that it can be used generally in varieties of research approaches. Several steps in thematic analysis are easy to follow, however analyzing the data must be done conscientiously to generate meaningful findings. According to Braun and Clarke (2013), there are six phases of Thematic Analysis. These are familiarization, generating the initial codes, searching for themes, reviewing the themes, naming and defining the themes and writing and producing the final report.

4. Results and Discussion

The purpose of this action research was to explore and describe how the participants identify and express areas of improvement in flexible teaching learning delivery in MARAD 206 and to develop solutions on the identified gap.

4.1 Module Content. Four out of six participants stated aligning the assessment to Outcomes Based Monitoring Instruments (OBMI) and using sample Instructors' syllabus as part of the references, four participants mentioned differentiated activities and requirements for those students who are onboard and offshore, three participants mentioned having additional examples on area on Certification module and one participant mentioned use to IMO 3,12 as art of the references making the content process and assessment more relevant to maritime education and training. In short alignment to standards in maritime education is vital in the delivery of instruction. The Self Learning Materials should be taken into account in the delivery of flexible teaching and learning. As mentioned by Dr. Cleopatra Doumbia-Henry, (2020), president of World Maritime University, highly support distance learning where she identified three main issues in distance learning delivery, the **learner, instructor** and **curriculum**. It was also highlighted that for successful distance learning delivery, curriculum needs to align with teaching modes and valid assessments. The importance aligning standards of distance learning program to that of traditional resident programs was also mentioned. She further stressed that there is a continuing need to improve the educational standards of seafarers and to expand access to educational programs at all levels—including postgraduate and doctoral studies, professional development courses, as well as taking into account the legal requirements of the IMO STCW Convention and other relevant instruments. On the other hand, it is necessary that the developed module of Self Learning Instructional Materials shall provide all the necessary inputs in terms of content and should be based on the needs of the students. A continuous review process in producing flexible distance learning instructional materials such as module should take into account the Voice of the customers for continuous improvement as reported by Ogunsola-Bande, Mercy, (2016), oasis.col.org/handle/11599/2630. in an article entitled Students' Voices on Flexible Learning Materials in a Fixed Learning System. On the other hand, Jayaran et al (2014), concluded that revisions of SIM used in distance learning is as important as the development in the field of study, review of the

performance should cover in the light of the feedback from the students to make the course more relevant, learner friendly and academically rich. Once the module writer and implementer has identified the problems (i.e., they have a new hypothesis about how to better support student learning), new or existing instructional materials and assessments can be created, adapted, or modified and students are powerful partners and collaborators in continual improvements to the instructional materials Wiley and Hilton (2018)). It is but proper that the content be within the context of maritime education by way of using standards in line with course like the STCW in terms of competencies, the use of sample instructors' guide teaching maritime education, Outcomes-Based Monitoring Instrument (OBMI) for Maritime Education, and consider as well the IMO 3.12. In this manner a process of continuous improvement taking into account the voice of the customers on flexible teaching learning delivery relative to module content be put in place.

4.2 Monitoring and Supervision. Student monitoring and supervision is a practice that supports the teachers' use student current performance to continually evaluate the effectiveness of teaching and to establish the progress the students need to reach to meet the learning objectives for continual improvement of the process. In this action research, the theme monitoring and supervision of students is not only limited to student performance but to the process that includes use of platforms, schedules of students, follow up on unsubmitted students' outputs and monitoring and supervision of differentiated activities on requirements for both onboard and land-based students, as well as provision of timely, relevant and quality feedback. Part of using the module is the task of the teacher to provide reasonable feedback, monitor and help the students see that the assigned task is as valuable as other. When the work is marked conscientiously by the teacher, and is given relevant feedback, the students will find meaning with what they do because they know that their effort is not wasted. Monitoring and guiding the students in the process will yield a more beneficial output because when the students are left on their own, they fail to learn and even learn incorrectly.

For this theme, monitoring and supervision, four out of six participants stressed out the use of any platform available to the students for both onboard and offshore taking into account, submission and posting of assignments, a well-defined policy on submission of student outputs, three mentioned that the faculty in-charge has to follow -up and a little flexibility those students who were not able to submit on time, three participants recording of the synchronized sessions for reference purpose, two participants fixing of the conflict and 7:00a.m to 7:00 pm schedule of students The results conforms with the study of Yukofsky, (2020), who concluded that as a result of frustration with the "What Works Paradigm", researchers, practitioners are increasingly embracing set of ideas and practices that can be labeled Continuous Improvement. Education Reform (2013), said that Continuous Improvement in education refers to the school or instructional improvement process, that does not have predetermined endpoint. The concept of CI is related to the ability and expertise of school leaders, faculty and staff and to action research that helps educators develop adaptive solutions and improvement strategies. Monitoring and supervision as one of the themes in this action research will enable the graduate school to continually improve the process. Dr. Cleopatra Doumbia-Henry, (2020), president of World Maritime University stressed that there is a continuing need to improve the educational standards of seafarers and to expand access to educational programs at all levels—including postgraduate and doctoral studies, professional development courses, as well as taking into account the legal requirements of the IMO, STCW Convention and other relevant instruments

4.3 Students' Output and Outcomes. Student outputs represent one of the measures of student performances, what they know and what they can do to what they know. This also measures the rich engagement and participation of students as well as the degree of interaction, completion and submission of requirements on time. The quality of output supports the achievement of the desired outcomes in specific course or program. The outputs has to be aligned with the standard in maritime education and industry like the STCW. Bao, (2020), stressed that one of the high impact principle of flexible learning, an adequate support should be provided to the students to improve the depth and breadth of student learning.

4.4 Mode of Instructional Delivery. The theme Mode of Instructional Delivery refers to how course content is delivered in what would traditionally be considered as the classroom. Distance learning was given high emphasis since most of the respondents' situation where there were onboard students who could hardly comply with time requirements during scheduled synchronize sessions. Thus a mechanism on distance learning has to be put in place, differentiated policies for the on-board students and land based students, not only in this time of pandemic but beyond the current situation. AIMS GS should deliver instructions within the context of Maritime industry, and within the needs of the learners. Because of the current situation and in the context of continuing education, all HEIs have to continue practical and sensible solution by using pedagogical modalities that do not require face to face interaction and physical attendance. Also, 'flexible provision of higher education is a mode of delivery that provides learners with guided choice, in a number of domains, achieved through employment of various strategies including the use of learning and teaching techniques and technologies and the adoption of policies affecting choices for learners.' ('The Effectiveness of Models of Flexible Provision of Higher Education' (2001), DEST, Australian Government) (Department of Education Employment and Workplace Relations, 2008) On the other hand, on the maritime education perspective, Dr. Cleopatra Doumbia-Henry, (2020), president of World Maritime University, highly support distance learning. She even identified three main issues in distance learning delivery, the learner, instructor and curriculum. It was also highlighted that for successful distance learning delivery, students need to regulate their own activities, instructors need to efficiently use available technology, and curriculum needs to align with teaching modes and valid assessments. The importance aligning standards of distance learning program to that of traditional resident programs was also mentioned. She further stressed that there is a continuing need to improve the educational standards of seafarers and to expand access to educational programs at all levels—including postgraduate and doctoral studies, professional development courses, as well as taking into account the legal requirements of the IMO STCW Convention and other relevant instruments. In the same webinar, Professor Baawain, Dean of International Maritime College of Oman (IMCO) in his presentation ensured the importance of the blended learning process, as the online learning is for theoretical parts of the courses, and on campus training is for practical sessions.

5. Recommendations

After a thorough analysis, the following recommendations are made:

1. The research study recommends that a continuous improvement process on teaching learning process be put in place as a part of the quality management system and should always consider the Voice of the Customers as one of the sources of improvement.

2. Given the context of Maritime Education, Training and Industry, Distance Learning as an alternative mode of delivery is highly recommended. Distance learning will provide an avenue for continuous professional development to those involve in maritime education training and industry. In the provision of distance learning as an alternate mode of delivery, the three areas has to be considered, situation of the learners, capacity of faculty members on the use of technology and the curriculum looking into the standards as mandated in IMO, STCW and other related regulations.

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