Essentiality and Practicability of Engine Room Simulator (Ers) Training Course Onboard Ship

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This study determined the essentiality and practicability of the Engine Room Simulator Training Course onboard ship among special program cadets of JBLFMU-Molo, Iloilo City, Philippines. This employed the qualitative research method where data are gathered through an interview and the subjects were the special program cadets who had taken the ERSTC and had undergone apprenticeship onboard an international vessel. The participants were the ten (10) engine cadets of the special program specifically the Norwegian Ship-owners Association (NSA) Cadets of JBLFMU-Molo, Iloilo City, Philippines taking up marine engineering, which had taken the Engine Room Simulator Training Course (ERSTC) and had undergone apprenticeship onboard international vessel. As whole, the ERS Training Course is essential onboard ship in a manner, that most of the vessels are computer based or UMS. It gives basic idea and knowledge on the operations and functions of the machineries and equipment in a specific system onboard, gives experiences on how to trouble shoot and rectify and make the mastery of operating procedure easy like starting and stopping of the main engine, synchronizing of generators. Furthermore, ERS Training Course is very practicable on the UMS vessels and essential on the manned machinery space when taken as whole. As such, the machineries and equipment, operation and functions are the same onboard even though the positions are less complicated on the simulator that it is fixed and organized. Lastly, it is applicable onboard regardless on the types of vessel, kind of cargo carried, and mode of operations.

Keywords: *Engine Room Simulator Training Course, special program cadets, operation and functions of machineries, onboard training, engine officers.*

1. BACKGROUND AND THEORETICAL FRAMEWORK

At the time that man started discovering things around him, many innocent people were amazed. Starting from the discovery of fire upon the ignition of two stones that creates flame, to the invention of gunpowder by the Chinese people.

After several years of evolution, technology had created a great change in life on land and in water. Men had created highly complicated gadgets, the development of machines, treatments in the field of medicine, and in science and technology.

Now, even on board the ship technology had really affected the life of many seafarers. Just imagine the kind of ships 30-40 years ago. During those times everything was being done manually. For example, when an alarm is heard everybody must go down the engine room to trace the exact place where a deficiency is spotted. But now, even inside one's cabin, one can immediately track the place where the alarm started. Because of the sophistication of technology, most international vessels are under a special operational system, which is widely known as the "UMS" or the Unmanned Machinery Space. This system helps most marine engineers do their work easier. Through this system, they are not obliged to monitor everything in the engine department from time to time. If the crew on duty can already stay inside their cabin while doing their duty at the same time and if the alarm is heard they can immediately determine where the alarm is coming from.

With the continuous development of technology, ships became complicated and highly powered with their machineries and gadgets. And so, in order to be competent in using these machineries one must undergo trainings, seminars and special courses that could comply with the standards of these vessels.

With the rapid development of technology, a new and better training course is introduced which gives the new generation of marine engineers the idea and knowledge with the usage of these technologies. Such course is known as the "Engine Room Simulator Training Course." The ERSTC is an upgrading course offered by a school to the future Engine officers with the functions and usage of the machinery and equipment in the engine room and also enhances the abilities and competency of the engineers.

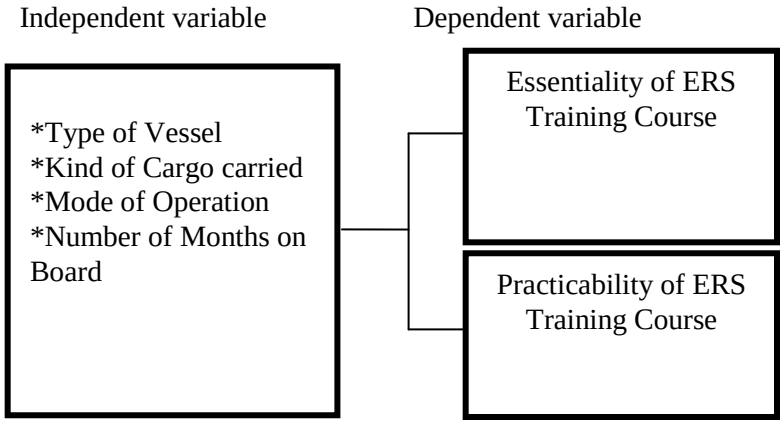

Figure 1 Practicability and essentiality of ERS Training Course

2. STATEMENT OF THE PROBLEM

This study determined the essentiality and practicability of the Engine Room Simulator Training Course onboard ship among special program cadets of JBLFMU-Molo Inc. This study also aimed to answer the following questions:

1. Is the Engine Room Simulator Training Course essential to special program cadets of John B. Lacson Foundation Maritime University (JBLFMU)-Molo Inc. when taken as a whole?
2. Is the Engine Room Simulator Training Course essential to special program cadets of JBLFMU-Molo Inc. when grouped according to a) Type of Vessel; b) Kind of Cargo Carried; c) Mode of Operation?
3. Is the Engine Room Simulator Training Course practicable to special program cadets of JBLFMU-Molo Inc. when taken as a whole?
4. Is the Engine Room Simulator Training Course practicable to special program cadets of JBLFMU-Molo Inc. when grouped according to a) Type of Vessel; b) Kind of Cargo Carried; c) Mode of Operation?
5. How does the Engine Room Simulator training Course help the special program cadets of JBLFMU-Molo?

3. SIGNIFICANCE OF THE STUDY

The researchers believed that this study is beneficial to the following:

JBLFMU community and Administrator. This shall be the basis in enhancing and promoting the quality of education and learning among marine engineering students, specially the special program cadets onboard ship.

JBLF Training Center. This will give an insight about the essentiality and practicability of the Engine Room Simulator Training Course onboard a ship in improving the quality of learning and training.

Students. They will be able to appreciate and give more importance to the Engine Room Simulator Training Course on its essentiality and practicability onboard ship. Also this will give an idea about the said course.

For Future Use. This will give information about the Engine Room Simulator Training Course, on its essentiality and practicability onboard ship to the researchers who find interest to pursue the same study.

4. RESEARCH DESIGN

This employed the qualitative research method where data are gathered through an interview and the results were compared.

5. THE PARTICIPANTS

The participants were the ten (10) engine cadets of the special program specifically the Norwegian Ship-owners Association (NSA) Cadets of JBLFMU-Molo Inc., Iloilo City taking up marine engineering, which have taken the Engine Room Simulator Training Course and have undergone apprenticeship onboard international vessels.

6. DATA GATHERING INSTRUMENT AND STATISTICAL TOOLS

The research procedure involved the preparation of the study instrument, choosing the participants, data processing and analysis.

The participants were chosen randomly and the interview technique was employed because the researchers chose the qualitative type of research, using a qualitative-questionnaire made by the researchers and approved by the adviser.

7. RESULTS OF THE STUDY

The interviewee number one (1)'s answers on the question asked by the researchers were shown in Table 1. Interviewee number one (1) has already taken the ERSTC (Engine Room simulator Training Course) and boarded an Oil-Chemical tanker vessel for ten (10) months carrying finished products of oil like gasoline, LPG, LNG, etc. The mode of operation of machinery is unmanned machinery space (UMS). For him, the ERSTC is very essential and practicable onboard for the reason that most of the vessels today use UMS. The simulator gives him knowledge and basic ideas of the correct procedures in operating machineries and different systems which are carried onboard. It made him familiarize because the machineries onboard are the same in the simulator but some fittings are not found in his vessel.

The results gathered by the researchers on the interviewee number two (2) were shown in the following sections. Interviewee number two (2) has already taken the ERSTC and boarded a General Cargo Vessel carrying bulk, ore, etc. for almost eleven (11) months. The mode of operation of the machineries is UMS.

The data gathered from the interviewee number three (3) were shown on the following sections. Interviewee number three (3) has already taken the ESRTC and boarded a Tanker vessel for almost ten (10) months carrying LPG, LNG, etc. The mode of operation of machineries is UMS.

Interviewee number four (4) has already taken the ERSTC and boarded a General Cargo Ship for almost ten (10) months carrying all forest products like lumber, wood, etc. The mode of operation of the machineries is manned machinery space.

The results gathered by the researchers from the interviewee number five (5) were shown in the following sections. Interviewee number five (5) has already undergone an ERSTC and boarded a Bulk

vessel for almost 11 months carrying ore, bulk, etc. and the mode of operation of machineries is a manned machinery space.

The results gathered by the researchers on interviewee number six (6) were shown in the following sections. Interviewee number six (6) has already taken the ERSTC and boarded a General Cargo Vessel carrying bulk, ore, etc. for 12 months and 2 days. The mode of operation of the machineries is UMS.

The results gathered by the researchers from interviewee number seven (7) were shown in the following sections. Interviewee number seven (7) has already taken the ERSTC and boarded an Oil Chemical Tanker carrying palm oil, gas oil and molasses for almost ten (10) months. The mode of operation of the machineries is UMS.

The results gathered by the researchers on interviewee number nine (9) were shown in the following sections. Interviewee number nine (9) has already taken the ERSTC and boarded a General Cargo Vessel carrying pulp and different kinds of metals for 12 months and 8 days. The mode of operation of the machineries is manned machinery space.

The results gathered by the researchers on interviewee number ten (10) were shown in the following sections. Interviewee number ten (10) has already taken the ERSTC and boarded an Oil Chemical Tanker carrying various oils for almost eleven (11) months. The mode of operation of the machineries is UMS.

8. CONCLUSIONS

Based on the interviews, the qualitative results lead the researchers to conclude that:

As whole, the ERS Training Course is essential onboard ship/ in a manner, that most of the vessel is computer based or UMS. Also, it gives basic idea and knowledge on the operations and functions of the machineries and equipment in a specific system onboard. When the system fails, it gives experiences on how to trouble shoot and rectify and make the mastery of operating procedure easy like starting and stopping of the main engine, synchronizing of generators, etc.

The same qualitative findings shared by the respondents during the interview when they were grouped according to type of vessel, kind of cargo carried and mode of operations, the ERS is essential onboard ship.

Furthermore, ERS Training Course is very practicable on the UMS vessel and practicable on the manned machinery space when taken as whole. As such, the machineries and equipment, the operation and functions are the same onboard even though the positions are less complicated on the simulator that it is fixed and organized.

9. IMPLICATIONS FOR THEORY AND PRACTICE

The Engine Room Simulator (ERS) Training Course is applicable onboard regardless of the type of vessel, kind of cargo carried and mode of operations.

10. RECOMMENDATIONS

Based on the findings of this study, the researchers arrived at the following recommendations:

The administrator and the head of the JBLF Training Center must give importance on the ERS Training Course. They should open the Engine Room Simulator to everybody, so that the students could practice on the operation of the machineries and equipment on board ship in the time they were available or must be added to the curriculum of the Marine Engineering Course.

For the school, they should maintain the computer and the equipment in good condition and additional computer to occupy more students.

To Instructors and Assessors of the ERSTC of JBLF Training Center, they should be strict to the student in assessing and must improve their teaching skills.

In addition, students must take the ERS seriously so that they could learn more about the operations and functions of the different machineries onboard.

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