

Project PRACNAV for a Better on Board Training Curricula

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ABSTRACT: During 2008, Constantza Maritime University has developed a project financed with European funds that aims for an increase in the quality of training and the practical skills of the students that will be working in the maritime industry, by organizing and undergoing on board training stages at higher standards. It is expected that once this objective is achieved, there will be a 40% increase in the chances of employment in the shipping companies for the Romanian students. A coherent, modern application of such a program with fully integrated on board training sessions, would ensure a better chance of employment for our students in the European fleet. If the „equality of chances” principle is considered, the increase of theoretical knowledge by acquiring specific practical skills for those students that undergo PRACNAV, for graduates of female gender an increase of up to 60% in their employment chances is expected as maritime officers on board European ships.

1 INTRODUCTION

One of the foremost problems in the maritime transport industry is the lack of qualified well-trained officers particularly in management positions. Such a dangerous situation could increase the number of accidents caused by human error and long-term solutions are yet to be developed.

At Constanta Maritime University, we believe that such a long-term solution is increasing the number of students while maintaining a high standard of training and education. During 2008, a project financed with European funds has been proposed aiming to increase the quality of training and the level of practical skill of the students who will be working in the maritime industry. The main aim of the PRACNAV project is to reorganize the on board training stages of the cadets in order to optimize their professional achievements.

In the years prior to 2006 the students of our university had to surpass great difficulties in order to acquire the 12/6 months period of sea training. In those years one of the most difficult tasks for the deans and rectors was to convince Romanian and foreign ship owners to accept cadets on board their ships. Despite their best efforts only 60-65% of our students found placement, the rest had to resolve this problem the best they could, relying on own personal relations or their luck in order to find an owner willing to embark them as cadets. This situation

changed however in 2006, when crewing and shipping companies came to our university asking for cadets. This change in their attitude was a direct consequence of a prognosis confirming the shortage of well-trained officers for the merchant fleet during the next 10 years.

We consider the interest showed by shipping companies in the maritime education process to be most welcomed. If they would involve in all the stages of the educational program rather than act only as passive beneficiaries of the maritime training institutions' outputs, the results could prove most beneficial (Sears D.F. 2003). They have a key role for implementing a good on board training program and for monitoring the way this program runs on board their ships.

According to the provisions of the STCW'95 Convention adopted by the International Maritime Organization, and of the European Maritime Safety Agency (EMSA) that have found an expression in the 2001/25/EC and 2003/103/EC directives regarding the required level of training for a maritime officer, an important aspect of that training is the level of skill acquired by that officer.

Taking into account the above statement, we consider the PRACNAV project as a necessary step, facilitating the transition from the theoretical accumulation of knowledge to an active educational process with a higher level of practical skills that would give

to the young Romanian officer a much higher rating on the European labor market.

2 REMOTE MONITORING OF ON BOARD TRAINING STAGES

During the last few years, Constanta Maritime University students returning from their on board training period were asked to fill a questionnaire containing 20 questions. In order to encourage them to answer with the outmost sincerity, we did not ask them to write their names. They were required to write only the name of the vessel/vessels they have been assigned to, the name of the crewing company and/or the owner of that vessel.

The most important conclusions of this enquiry were:

- There are great differences between the quality and complexity of the on board training programs performed on board different ships;
- The number of shipping companies that have a modern and systematic on board training system is very low;
- During their on board training period, cadets are not usually guided and monitored by a dedicated STO. They receive guidance from any of the watch officers, including Chief Officer/First Engineer. Any available officer was allowed to undertake assessment and to sign and declare the cadet as proficient in the tasks mentioned in the training record book.
- In most of the cases, the cadets have to learn by themselves, looking and copying the actions and work style of the ship's officers;
- The quality of life on board is very important for the professional progress of cadets and what they feel in the first 2-3 voyages could determine their options for their future;
- 40% of the students were not very satisfied about their on board experience and it is possible that many of them will not embrace a sea carrier prefer from the start to find a job ashore instead (Fig.1).
- Almost 35% of the voyages undertaken our cadets were not guided and monitored by a dedicated ship training officer (Fig. 2). They had to learn by themselves, looking and copying the actions and work style of the ship's officers. As the students explained, in most of the cases, they received guidance from any of the watch officers and any available officer was allowed to undertake assessment and to sign and declare the cadet as proficient in the tasks mentioned in the training record book.
- It will be best only to work with shipping companies, without the brokerage of crewing companies, because the university will know from the

beginning where the cadets will go and could avoid some unpleasant experience;



Figure 1. Answers to question: "Give a score for the overall feeling on the on board training period"

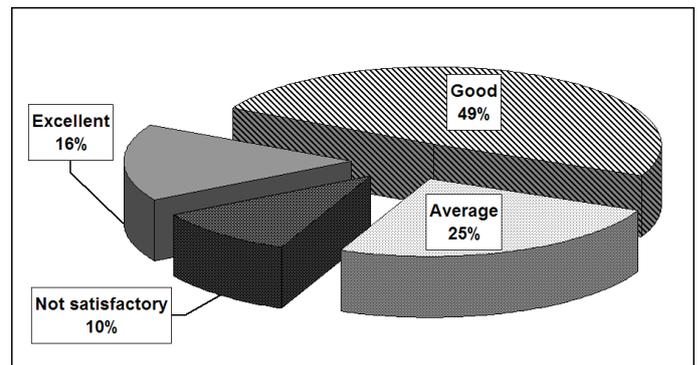


Figure 2. Answers to question: "How would you appreciate the activity of the Designated Training Officer?"

The PRACNAV project aim is to improve the quality of professional training and skills level acquired by students, during their on board training time. Because the University has not the possibility to monitor the student's activity on board ships, we need in the first place to have a very good feedback regarding these periods of training. Until now, our feedback was based only on the sea service qualitative, the grades mentioned in the Training Record Book and the student's answers to our questionnaire.

Our intention is to provide to the shipping companies a standardized form that should be used to summarize the performances and attitudes of the cadet during the on board stage. This form will increase the shipping companies' responsibilities for monitoring the cadets' activity and will allow us to have a better picture of the problems flagged by the owners.

This continuous adaptation to the shipping companies' requirements would ensure that the students are much better trained and prepared for the realities onboard a ship at graduation.

If this objective is achieved we expect that the chances of Romanian students of being employed on board ships that have U.E. owners would increase with 40%. At this moment students graduating from

Romanian Maritime institutions compete directly with graduates from Bulgaria, Ukraine and Poland on the European labor marketplace. The application of this program would give them the edge they need, their experience and skill, enabling them to make a better use of their theoretical knowledge.

The „equality of chances” principle is also considered and due to higher theoretical knowledge and a higher level of practical skills acquired by those students that undergo PRACNAV, the graduates of female gender will have significantly higher chances (an increase of up to 60% in their employment chances is expected) of being employed as maritime/river officers on board European ships (Belcher P et al.

3 NEW TRAINING GUIDELINES

An important aspect of this program is that we have not designed it only for students graduating from Romanian universities. All the materials, the curricula, the training record book, the training handbook for the Company Training Officer (CTO) and for the Ship Training Officer (STO), all the documents and manuals used for individual and group training during sea time, will be prepared in English. A standardized format will be used, in order to facilitate their use by any student of any other maritime university.

According to the STCW Convention the on board training period must be documented in a training record book (TRB)

The importance of this document cannot be disputed. Apart from being an imperative requirement of the STCW Convention it is a very important tool of education especially in the cases of poor management of the on board training. We have found that in the absence of a written plan prioritizing the training steps and stages for the on board training of cadets this document is the only one that gives the STO a clue about what is to be done (Hanzu-Pazara R., et al. 2008).

At this moment, the Romanian Maritime Authority (RMA) publishes a training record book that Constantza Maritime University has the obligation to provide to all of our students. In order to avoid duplication of projects and tasks completion confirmation, CMU agreed with RMA that any TRB issued or used by a shipping company that meets the standards of the Romanian TRB will be accepted as valid.

However, we are not very pleased with the content of this record book, because it does not present the tasks the logical and order established by STCW and the guidelines established by IMO. We have asked our cadets if they had worked with other types, copies of the standard TRB model published

by ICS/ISF or other record books issued in accordance with the provisions of other national maritime authorities.

For the purposes of this project we are considering the development and publication of a new TRB, one that satisfies all our needs. We think that marks (scores) must be given to the cadets by the STO for the different tasks that are registered and must be performed by the cadet. If the STO must score the activity of the cadets, he will be more responsible in training and monitoring the on board students.

Also, the long list of task that must be performed confirmed only by done/undone remarks must be replaced with more complex tasks, projects that will combine several competencies that will be demonstrated.

Because for deck cadets, the mandatory training period of 12 month can not be achieved in only one stage, using marks for evaluation of cadet's achievements in different stages will reflect also the professional evolution of the trainee.

The instructors are the second most important target group of this program. For the on board training period our students will find a dedicated trained person that is responsible for their education and development of practical skills.

In order to ensure an equal level of training for all our cadets, no matter the shipping company and the ship itself, a training guide designed for the STO is a must. We assume that are very few companies that have some sort of guidelines or at least recommendations for their officers regarding the mode of undertaking the on board training of young cadets (Barsan E., et al.. 2007).

Consequently, in most of the cases the STO is on his own judgment, interest and talent regarding the organization of the on board training for cadets. Some pedagogical skills are needed for all trainers if we want to obtain a positive training result.

During the PRACNAV project we will try to elaborate a concise guide of how the on board training stages must be organized and how the students must be coached, monitored and evaluate.

Any how, the main point of the guideline consist in the prioritizing the on board training objectives, in accordance with the theoretical level of knowledge of the student.

The training materials for PRACNAV instructors (the CTO – Company Training Officer, and the STO - Ship Training Officer) will be distributed within those shipping companies taking part to this program. We will undertake short courses for the CTOs in order to make them more aware about the real potential of our cadets and about the realities of the present MET system achievements and minuses.

All shipping companies are trying to select the best of the students applying for a cadet position. In reality, only 25% of these students can fulfill all the expectation of the owner. The rest of the applicants are students with average or under average level of theoretical training (Barsan E. & Muntean C. 2008). If these students will have the opportunity to participate on a good quality on board training process, they can be “converted” in valuable maritime officers and their interest for the theoretical training will increase also.

If only the top 25-30% of the MET graduates will be employed on board ships, it is obvious that the deficit of officers in the world fleet will be maintained.

4 OTHER PRACNAV PROJECT OBJECTIVES

The specific objectives of PRACNAV project are:

1. The familiarization of students to the reality on board a ship, and to the ways a multicultural and multinational crew member interact with one another.

The quality of life on board is very important for the professional progress of cadets and what they feel in the first 2-3 voyages could determine their options for their future. We expect that for many of them the shock of being part of a multicultural crew, away from their homes for a long period of time, possibly for the first time, might be an overwhelming experience.

Although many students are motivated only by the money that they will earn as cadets when they choose a company, an unpleasant experience could mean many will not embrace a sea carrier and will prefer from the start to find a job onshore (Junzhong B., Mingqiang X. 2007).

This is why a coherent application of this modern program in collaboration with the shipping companies, without the brokerage of crewing companies, would enable our university to monitor the progress of its students, preventing such disagreeable situations from happening. We consider that this would greatly reduce the number of students that abandon the career of maritime officer.

2. Ensuring that the students can use their theoretical knowledge on board a ship in a practical situation, by using complex simulator training programs that are specific to the maritime transport industry

According to the 724/2004/EC directive of EMSA an important characteristics of a future maritime officer is the knowledge and skill with which he operates modern electronically equipment. This level of proficiency can be achieved by our students dur-

ing their training with the complex simulators. These training sessions under the supervisor of instructors will help them gain the necessary information, and will allow them to quickly adapt to the ship's equipment particularities before arriving on board a real ship (Barsan E. 2007a).

Usually training with the help of simulator follows the theoretical curricula of the courses directly related to the seafarer's profession and mentioned in STCW. Due to the limited number of hours that can be allotted to simulator training and taking also into account the higher costs of such a training, the scenario used for simulation are trying to concentrate as much as possible events in a short period of time (Raicu G., et al. 2007).

Consequently, the student is the entire time alert and prepared to respond to the challenges imposed by the scenario. A more realistic approach will be tested, meaning that in that pre-sailing training using simulators, we will run scenarios where the main task is to perform the navigation watch in almost routine conditions. Exercise will take minimum 2 – 2.5 hours, and during that time there will be only one or two events that will require attention and application of the normal watch practice.

For the skills acquired by students in the simulator room, the exercises/scenarios used for training will be designed in such a way that they can be used by any maritime university, having similar simulating equipment.

3. Engaging in partnership relation with a minimum of 12 European shipping companies that will employ at least 70% of the students that have undergone their on board training on the ships owned by those companies (Barsan E. 2007b).

We consider the partnership with at least 12 European shipping companies to be a minimal condition for the smooth running of the PRACNAV project. The finality of this project is that our students should become maritime officers with a recognized higher level of skill. Because of this we expect that the companies would want to employ at least part of them. This in turn would lead to competition between students that would only improve their level of proficiency, as they try to prove worthy for employment.

4. To ensure that all students benefit from a on board training on maritime ships, that have European owners, for a period at least 5 months

The STCW 95 Convention imposes a period for on board training for all maritime students. With this in mind we must realize the fact that because of the

large number of our students not all of them will have the benefit of being cadets on board training on ships with European owners for this whole period.

5. Monitoring the professional career of the graduates for a period of at least 2 years since the moment of their graduation, with the purpose of determining the international companies with the higher percentage of employment for Romanian maritime officers.

This objective is crucial for determining the effectiveness of this program. What we hope is that major shipping companies will show a great interest in PRACNAV and in the students graduating from our university.

We hope that the international crisis that will affect also the maritime transport will have a limited impact on the seafarers' employment.

5 CONCLUSIONS

In conclusion the shipping companies are the beneficiaries of the maritime educational process. Those companies that show a real interest in this process demand that within the curricula particular attention should be given to the on board training of students. The PRACNAV project is envisioned to be an modern, integrated system of training, for senior maritime students, that respects all the legal requirements and conventions recognized at European or international level. At the center of this project lies the on board training period, with the participation of shipping companies.

This approach is unique, because it strives to cover all the aspects of a practical training process in its key phases: at the university, and on board a ship. At the same time emphasis is put on feedback, with the aim of ensuring the quality of the training process.

All the documents and manuals used for individual and group training during sea time and manuals, the training handbook for the Company Training Officer (CTO) and for the Ship Training Officer (STO), all will be available for use by other maritime universities in the UE that have a educational program that respects the provisions of the Bologna Convention.

There is a single major concern at this moment regarding the positive implementation of PRAC-

NAV and the tangible results of this project after finalization. The world economic crises seems to affect from the early beginning the shipping industry. We are afraid that in order to reduce costs, owners will lower the number of cadets taken on board and also will decrease the funds for training of their crews.

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