

# KEY ROLES PLAYED BY SHIPPING COMPANIES IN THE MET PROCESS

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## ABSTRACT

In the last 10 years, The Constantza Maritime University (CMU) had to surpass great difficulties in order to ensure places for the compulsory 12/6 month sea training period for its students. Year after year, one of the most difficult tasks for the rector and the deans was to find and convince Romanian and mainly foreign owners to accept our cadets on their ships.

In these circumstances the University manages to provide official placement for the full time sea training for 60-65% of our students. Before 2005, none of the crewing companies operating in Constantza wanted to sign an agreement with the University regarding the placement of cadets. Consequently, a lot of students had to use their own personal relations or their luck in order to find an owner disposed to embark them as cadets.

However, things changed rapidly in our favor during the last two years. Starting with 2005 the crewing and shipping companies came to our University asking for cadets and officers. At first we were surprised by such a change in attitude. After a while it became clear that the new approach of the owners was dictated by the already existing lack of officers and the prognosis confirming shortage of well trained officers for the merchant fleet during the next 10 years.

Our paper will discuss the major role that could be played by shipping companies if they will get involved in all the stages of the maritime education process and not only to act as a passive beneficiary of the maritime training institutions' outputs. We will also underline the key role of a good onboard training program for cadets and the leading role of the owners to implement and monitor such a program onboard their ships. The paper also reveals the perception of cadets regarding the on board training period, based on their responses to a questionnaire designed by our university and ran as part of the OPTIMPORT project.

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## I. INTRODUCTION

As a result of the IMO STCW 95 Convention, the on board training period for deck and engineer cadets became a very important part of the training process of merchant marine officers.

The STCW 95 Convention not only stipulates the compulsory duration of the on board training period (12 months for deck cadets and 6 months for engineer cadets), but it also gives some important provisions regarding this on going process, as follows:

- the on board training programme must be approved and certified as meeting the requirements of this section AII/1 or AIII/1;
- during the required period of seagoing service the candidate must receive systematic practical training and experience in the tasks, duties and responsibilities of an officer in charge of a navigational/engineer watch, taking into account the guidance given in section B-II/1 or BIII/1;
- the cadet must be closely supervised and monitored by qualified officers aboard the ships in which the approved seagoing service is performed;
- the on board training period must be documented in a training record book.

For all of us that have been working for many years in the field of maritime education and training it is obvious that from the above mentioned STCW 95 requirements, only the duration of the on board training period and the existence of the training record book are clauses fully respected by all players in this field.

Because this paper is focused on the roles played by shipping companies in the MET process, we have to state from the beginning that only few shipping companies have an on board training program approved and certified by a maritime authority and that there are also very few officers that supervise and monitor the training of cadets and are really qualified to deliver training at cadet level (MAIB, 2004).

For the clarity of the following pages, a series of abbreviations will be used frequently:

- CMU                      Constantza Maritime University
- DTO                      Designated Training Officer
- MET                      Maritime Education and Training
- OBT                      On board training
- RMA                      Romanian Maritime Authority
- TRB                      Training Record Book

## 2. FINDING PLACES FOR CADETS' ON BOARD TRAINING

Entry in force of the STCW 95 Convention imposing the compulsory 12 month of OBT for deck students had a direct impact over the maritime universities' curricula all over the world. All of us had to modify the teaching yearly schedules in order to include, as much as possible, time for the OBT in the basic education period. In most cases the solution was to develop a sandwich curriculum where university education was combined with OBT stages.

Romania has only 15 ships under Romanian flag (Barsan E., 2004) and a very limited number of private owners. On the other hand, around 150-190 deck officers, 90-110 engineers and 30-40 electrician officers graduate from the Romanian MET system each year.

During the last 10 years, and mainly from the entry of the STCW 95 Convention, the Constantza Maritime University (CMU) had to surpass great difficulties in order to ensure places for the compulsory 12/6 months sea training period for its students. Year after year, one of the most difficult tasks for the rector and the deans was to find and convince Romanian and mainly foreign owners to accept our cadets on their ships.

In these circumstances CMU manages to provide official placement for the full time sea training for only 60-65% of our students.

We think that such problems were common to all maritime universities, probably with few exceptions in countries with very large national maritime fleets such as China, Russia, Japan, Turkey, US, speaking only from the point of view of IAMU members.

Before 2005, none of the crewing companies operating in Constantza wanted to sign an agreement with our University (CMU) regarding placement of cadets. Consequently, a lot of students had to use their own personal relations or their luck in order to find an owner disposed to embark them as cadets. In order to fulfill their compulsory sea training time, many students had to accept embarkation as AB instead of cadet.

The Romanian Maritime Authority (RMA) wanted to help, but they could only make pressure upon the owners of the fifteen Romanian flagged ships. Each of these ships could take on board only 2 to 4 cadets. We also managed to do some training voyages with the two ferryboats undertaking short sea voyages between Romania and Turkey. Because of the fact that ferries had accommodations for truck drivers, we could embark up to 10 deck cadets and 8 engineer cadets on board these ships simultaneously.

Until 2003 we also owned a cargo training ship where we could embark up to 110 cadets, perform training voyages and carry cargo at the same time. The running costs of this ship were very high and year after year we had to plead for governmental financial support in order to undertake the two training voyages of two months each (Barsan E., 2006). Moreover, the ship was 20 years old and in 2004 we had to sell it because we did not have the money to undertake the capital repairs imposed by the shipping registry. Any how, as all of us are aware, a training ship is not a solution for undertak-

ing the compulsory 12 months OBT for deck cadets. Many of the national Maritime Authorities did not consider the time spent on these types of training voyages as part of the compulsory OBT period.

However, things changed rapidly in our favor during the last two years. Starting with 2005 the crewing and shipping companies came to our University asking for cadets and officers. At first we were surprised by such a change in attitude. After a while it became clear that the new approach of the owners was dictated by the already existing lack of officers and the prognosis confirming shortage of well trained officers for the merchant fleet during the next 10 years.

As a direct consequence, many owners changed their strategies regarding the recruiting of personnel and established new policies in order to develop or extend their cadets' training programs or at least try to take on board their ship as many cadets as possible.

This change of attitude has first of all economic reasons, based on the predicted lack of qualified officers in the near future. The lack of officers, in accordance with the world scale forecast, will be a consequence of the world merchant fleet increase (as number of ships) and the aging process of the maritime officers. More than that, the increasing volume of new electronic navigational equipment requires well trained young officers, able to quickly understand and accommodate with the use of electronic equipments (Bordal J., et al., 2002).

During the past few days, our university accommodated a job fair where crewing and shipping companies came to present their job opportunities for deck, engineers and electrical officers. This is the second similar event this year and it is very encouraging for us to see the real competition between these companies and their wish to attract as much audience as possible. However, the race for gaining future officers for their fleets is not enough to motivate the shipping companies to invest in the training of students while they are still in faculties, although they are happy to have on board young watch officers with 4 years of academic studies as educational background.

On the other hand, in accordance with our information, shipping companies have made investments in education in countries where the labor force is cheaper than in Eastern Europe (i.e. India, Philippines, Myanmar, etc.).

At this moment, our university has fifteen agreements signed with seven crewing companies and eight shipping companies. We encourage our students to undertake the OBT stages with these owners but around 22% of the students are still making voyages on ships owned by other companies. For the moment, we do not want to restrict their own will regarding the choosing of the shipping companies.

We consider it is very good that the number of agreements signed with owners is greater than the number of agreements with crewing companies, because working directly with owners gives us the opportunity to have a better feedback regarding the achievements of our students. In the next chapter we will see that there are also other reasons

for preferring to interact directly with the owners, instead of using a crewing company as intermediate between the university and the owner.

We, as a maritime university, are pleased that our deck students could find without much effort a ship to serve as cadet and to fulfill their 6/12 months OBT stage. We are also pleased by the perspective that all of our graduates that want to embrace a professional carrier at sea have this great opportunity and they will receive a fair payment for their job.

### 3. THE CADETS' OPINION REGARDING THE OBT PROCESS

Two years ago, as part of the research in OPTIMPORT project, CMU has designed a questionnaire (containing 20 questions) that has to be filled in by the cadets returning from their OBT period. In order to encourage students to answer with maximum sincerity, it is not compulsory for them to give their names. They have to mention the name of the ship, the crewing company and/or the owner.

The main purpose of this questionnaire is to help us in identifying the shipping companies that implemented the best OBT system and where the cadets are being integrated in a real and professional job training scheme.

The results that we will present and the comments that we will make in the following pages are based on the answers collected in 235 questionnaires. We will not reveal the names of the shipping companies that have best or worst performances from the point of view of fulfilling the requirements of the STCW 95 Convention regarding the on board training process, but we think that analysis of this answers will outline the real picture of this professional building-up period for young cadets.

For the purpose of this paper we selected only seven questions (from the total of twenty), the most important regarding the on board realities that had to be faced by a cadet in his training voyages. The selected questions are:

Q2 – Was there a Designated Training Officer on your ship?

Q3 - Did you receive a dedicated Training Record Book issued by the shipping company?

Q4 - Have you been asked about the level of your theoretical knowledge?

Q5 - Did you receive a written training plan that prioritized the training steps and stages?

Q11 - How would you appreciate the activity Designated Training Officer (DTO)?

Q12 - Please give a score for the quality of the on board training period

Q14 - Please give a score for the overall feeling on the on board training period

### 3.1. QUESTION Q2

Question Q2 is „Was there a Designated Training Officer on your ship?”

Cadets are instructed to answer this question with Yes or No, and an affirmative answer means that there was one deck/engineer officer on the ship on board which they served as cadet, that had very clear duties regarding the OBT program and was directly involved in the guidance, monitor, review, assessment of cadets, during the voyage (MNTB, 2005a). This officer was also reporting to the Master/Chief Engineer about the progresses made by cadets.

The question seems to be very harsh and it may look hilarious for many of the professionals involved in MET, but as you will see from the answers, the reality is not very encouraging.

As you can see from figure 1, we had 93 negative answers, meaning that in almost 40% of the voyages undertaken our cadets were not guided and monitored by a dedicated DTO. A negative answer to this question does not mean that there was no training running on those ships. As the students explained, in most of the cases, they received guidance from any of the watch officers, including Chief Officer/First Engineer and any available officer was allowed to undertake assessment and to sign and declare the cadet as proficient in the tasks mentioned in the TRB.

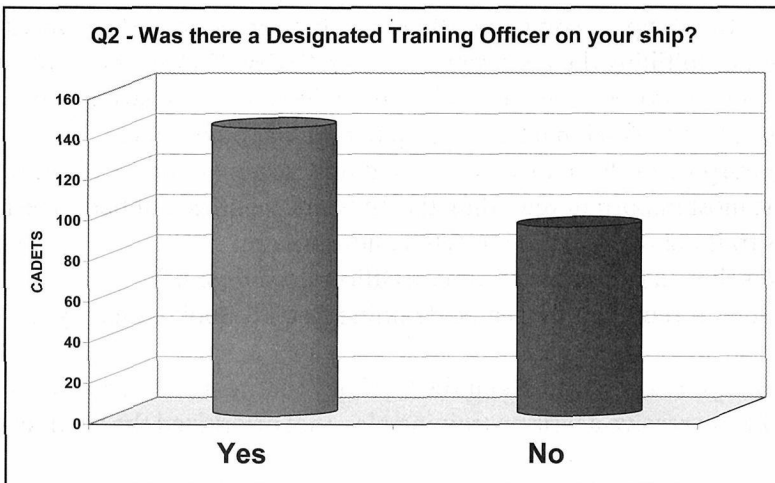


Figure 1. Answers to Question Q2

It is also true that in some cases, representing around 12% of the negative answers, there was no OBT program running on board. The on board policy encouraged cadets

to “steal”, in the old fashioned way, the professional skills from the on board officers without any explanations and guidance.

### 3.2. QUESTION Q3

Question Q3 is “Did you receive a dedicated Training Record Book issued by the shipping company? “

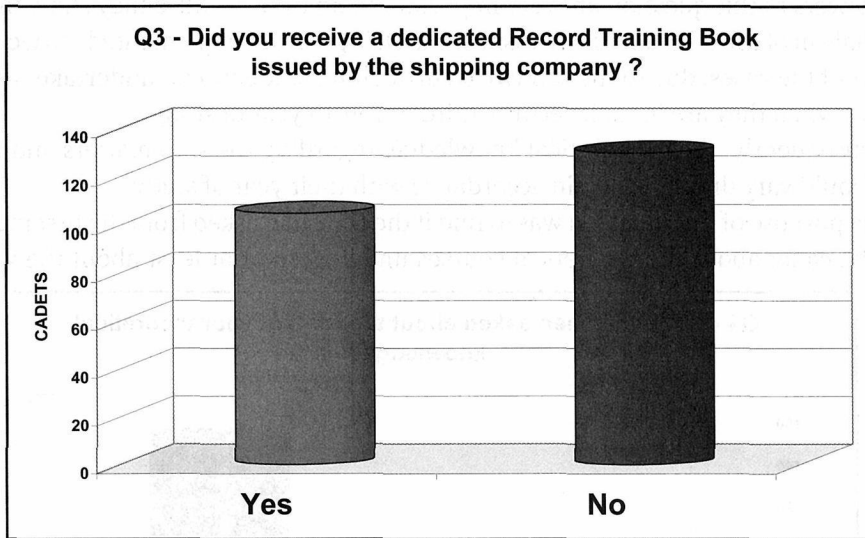


Figure 2. Answers to Question Q3

The Romanian Maritime Authority (RMA) published a TRB and the Constantza Maritime University (CMU) has the obligation to provide all of our students with this TRB. 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.

Because we are not very pleased with the content of the TRB published by RMA, we asked our cadets if they worked with other types of TRB, copies of the standard TRB model published by ICS/ISF or other TRB issued in accordance with the provisions of other national maritime authorities (MNTB, 2005b).

As you could see from figure 2, the number of negative answers represents 55%, meaning that in most of the cases the cadets have used the TRB provided by the university to record their training progress.

Because the number of negative answers is greater than in the case of question Q2, this means that even if on board some ships there was an OBT system implemented by the owner and a DTO, they still used the TRB provided by the cadet to provide evidence of training.

In 45% of the cases, the shipping company had their own TRB and the student had to use this publication and to comply with the training program specified in that TRB.

### 3.3 QUESTION Q4

Question Q4 is “Have you been asked about the level of your theoretical knowledge? “

Answers to this question are very important to analyze because they show the professionalism of the DTO and the realism of the OBT program implemented. As we know, in most of the cases, due to the sandwich curriculum, students can undertake training voyages when they are in their second, third or fourth year of study.

Consequently, their theoretical knowledge, regarding the ship matters and procedures could vary dramatically, in accordance with their year of study.

The purpose of this question was to find if the DTO had asked from the first meeting with the cadet about the theoretical courses undertaken or at least about the year of

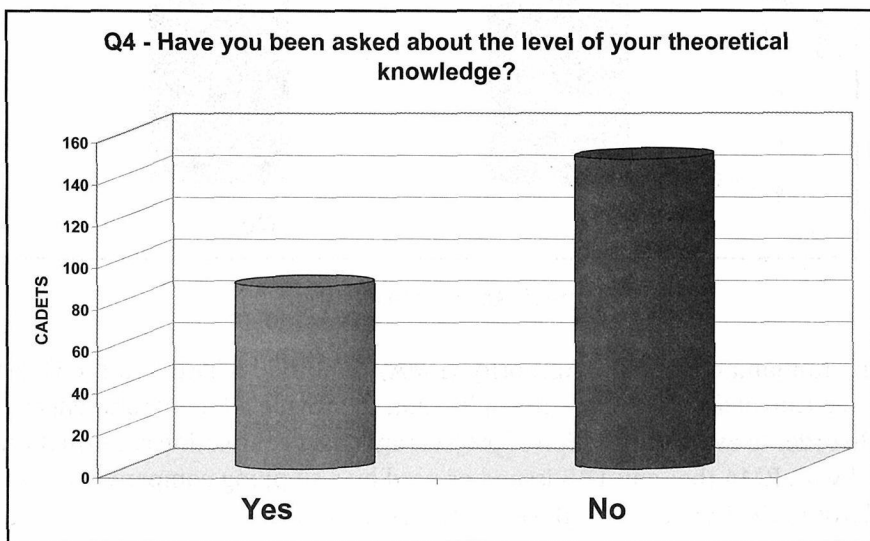


Figure 3. Answers to Question Q4

study of the cadet. As we can see from figure 3, there are 148 negative answers (63% from the total of 235 answers). By requesting explanations from our cadets regarding their answer to this question, we have found that in most of the cases the DTO was interested whether if the cadet is at the first, second or third voyage as a cadet and was eventually looking in the TRB to see what tasks had already been accomplished by the students.



In the context of a sandwich curriculum education the number of voyages already performed by the students are not very relevant. The year of study alone is also not relevant, because there are essential differences regarding the curricula for each year of study between maritime universities.

Usually, if the DTO asks about the year of study of the cadet he assumes that the cadet had the same theoretical training as the DTO had when he finished the same year of study, without taking into account that he graduated a different MET institution.

In order to make things easier, we think that it will be a good practice to provide cadets with copies of the official teaching curricula of the university, attached to the TRB - which will prove the level of theoretical knowledge achieved by the cadet.

### 3.4 QUESTION Q5

Question Q5 is "Did you receive a written training plan that prioritized the training steps and stages? "

An affirmative answer to this question will reveal a good management of the OBT. The training schedule must be established in accordance with the theoretical and practical knowledge of the cadet and with the remaining tasks and objectives as ascertained by the TRB.

If this schedule is not prepared by the DTO, the only job aid that could give a clue about what has to be done remains the TRB. Standard TRBs usually present tasks in the order established by STCW and the guidelines established by IMO and not in the

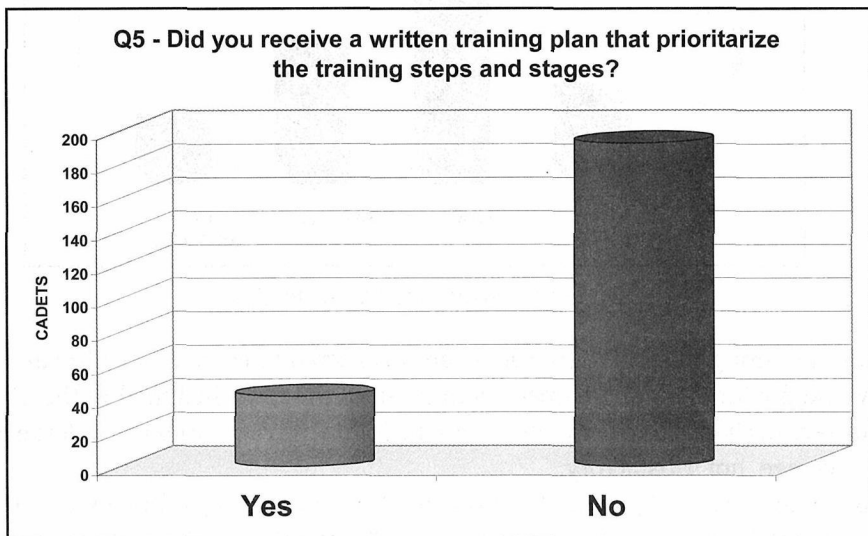


Figure 4. Answers to Question Q4

logical and chronological order for accumulating knowledge and skills during the OBT period.

In accordance with the questionnaire results, only in 18% of the cases (42 affirmative answers) the students encountered a very good training management that was able to prioritize the activities of the cadets (figure 4). Only 3 shipping companies, from a total of 32 where our cadets were embarked during the last two years, had the procedure to draw up a personalized training schedule for their cadets.

### 3.5. QUESTION QII

Now we will jump to the second part of the questionnaire, where the student is asked to give an overall opinion on the quality of the OBT period, from his own point of view. It is obvious that the following questions have a higher degree of subjectivism, but in our opinion it is very interesting to see the general perception of the students on their live on board experience.

Question Q11 is “How would you appreciate the activity Designated Training Officer?”

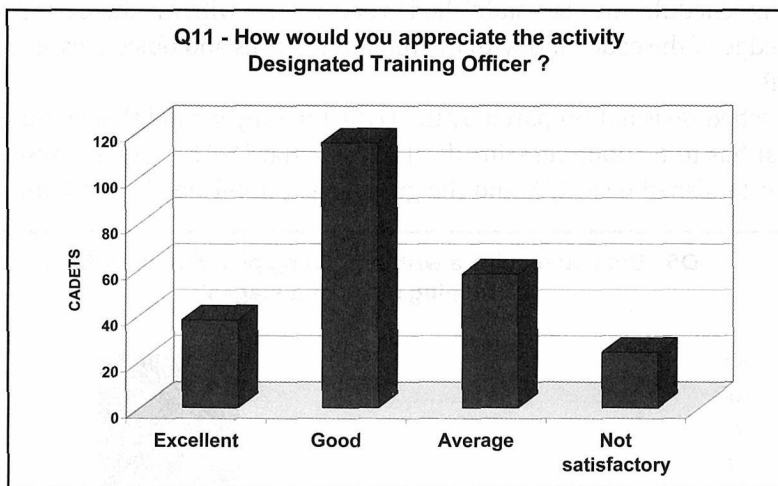


Figure 5. Answers to Question Q11

For answering this question, cadets are instructed to consider as DTO any officer that worked with them and helped them to fulfill the tasks included in the TRB. The cadets have to choose the best match from the following categories of grades: excellent, good, average, not satisfactory.

As we can see from figure 5, the efforts made by the training officers were positively evaluated by the cadets (16% excellent and 49% good). Only 10% of the answers appreciate as “not satisfactory” the activity of the DTOs. We are reluctant about these

negative answers, so from question Q11 we analyze mainly the above average results, because we consider that these answers reflect better the on board realities. Consequently, we have to observe that even though there are a lot of ships where the OBT system is not very well implemented or managed, there a lot of officers that voluntarily or not help cadets to achieve their required practical skills and competencies and cadets are grateful for this help.

### 3.6. QUESTION Q12

Question Q12 is “Please give a score for the quality of the on board training period.

“Answers to this question are also analyzed with some precautions, because in our opinion, only the cadets that are at their second voyage could have a tangible basis to compare on board experiences. For the cadets returning from their first voyage, this answer has a higher degree of subjectivism.

Any how, as shown in figure 6, almost 60% of the students considered that the quality of the OBT could be better, and this state of facts are not a good mark for the realities related to the OBT process.

The truth is that the universities are not very well connected to the on board training process and these education institution could not control the on board activities of their cadets.

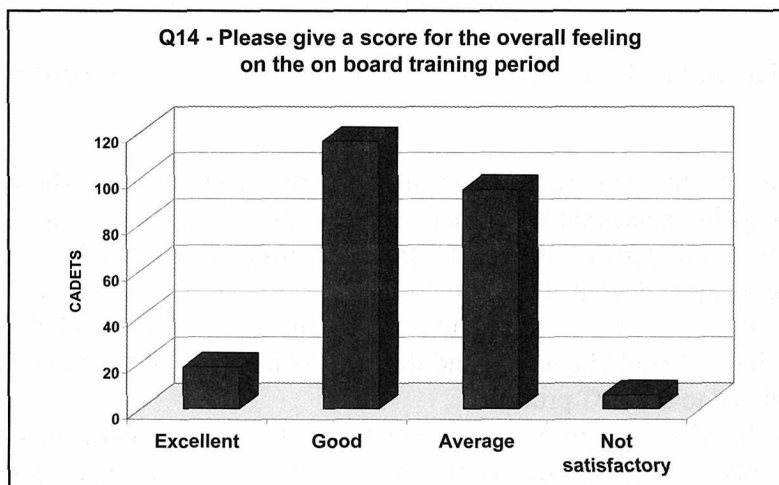


Figure 6. Answers to Question Q12

### 3.7. QUESTION Q14

Question Q14 is “Please give a score for the overall feeling regarding the on board training period“

This is the last question that will be presented in our paper and reflects the feeling of the cadets about their training experience on board ships.



*Figure 7. Answers to Question Q14*

It is true that there are very good chances that the feelings about the training to be mixed with the feelings about general life on board, but we appreciate that most of the students made positive appreciation about the time spent on board.

Taking into account that 40% of the students were not very satisfied about their on board experience (marked as “average”), and 3% of the cadets were “not satisfied” about that stage, it is possible that part of them will not embrace a sea carrier and will prefer from the start to find a job onshore (Little A.D., 2004).

By maintaining a database with these answers, we are trying to compare the answers given by the same students after the first, second or third voyage. By corroborating with other answers we can make some assumptions regarding the influence of the on board social life over the remaining state of spirit of the cadet after leaving the ship.

#### 4. CONCLUSIONS

We agree that this analysis is based mainly on answers given by cadets, at the returning from their training voyages. We know also that when a student has to evaluate his teachers or his education system, his answers may not reflect the reality 100%.

Before the graduation exam, an evaluation of the practical skills of the students from the last year of study is being made. Students have to undertake a 3 hours navigation watch, in a maritime area difficult for navigation and during that time they have to solve different tasks intended to reveal, as much as possible, their practical knowledge and skills.

Consequently, for the analysis of OBT quality, we compare the answers of the questionnaires with their achievements during this evaluation and we consider that we can draw up realistic conclusions regarding the quality of OBT programs implemented by the shipping companies.

In order to summarize, we can say that:

- the OBT period is a very important part of the building up of the professional skills and competences of the young merchant officer. Despite the students' opinions, only on board training is not sufficient for the creation of a modern officer. OBT must be an integrated part of the MET system, based on academic theoretical knowledge;
- there a great differences between the quality and complexity of the OBT programs performed on board ships;
- the number of shipping companies that have a modern and systematic OBT system is very low;
- 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;
- many cadets are motivated only by the money that they will receive as cadets and choose the shipping companies that offer them a better payment, without considering the quality of the OBT. This is the reason for which 20-22% prefer to go at sea with shipping companies that are not on the least agreed by our university;
- it will be idealistic to think that the university could direct its students only towards the shipping companies that have a good OBT program. For the moment we could not afford to make such a positive discrimination between the shipping companies, because the OBT period imposed by the STCW is very long, and we need all the available places offered by the shipping or crewing companies;
- 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 for the students;

- it will be very good if the universities could maintain some sort of supervision regarding the OBT, but this thing is not practically possible, excepting maybe the ships under national flag. Universities have to ask for feedback from owners, regarding achievements of their students, during the OBT period. This is the only way to make owners responsible and aware about the great importance of the OBT process.
- Universities must review the level of competences achieved by cadets by monitoring the tasks completion from TRB and by evaluating the practical skills of the students at the end of the sea training period.

It is very important that students consider the sea going intervals an integrated part of their professional training and make no disjunction between the theoretical courses and the OBT stages. The universities must emphasize by all means the necessity of building up practical skills on solid theoretical knowledge.

## REFERENCES

1. Barsan E., 2004, *Sea Service Equivalency for Full Mission Simulators training*, 5<sup>th</sup> General Assambly of International Association of Maritime Universities - Launceston, Australia, published in *Advances in International Maritime Research* ISBN 0-646-44200-7, pag. 120-129, Pub. Nella Australia, Launceston, Australia
2. Barsan E., 2006, *Social aspects of the Seafarers' integration on the Maritime Jobs Market*, International Conference "E-COMM-LINE 2006" – București, published in *One eEurope & Europe*, pag C7/28 125-136, ISBN 973-88046-0-4, Ed. Ecas Trade, București
3. Bordal J., Haeselich H., Kohli G.P., Meling J., 2002, *Future Competence of Seafarers*, Norwegian Shipowners' Association - The Research Council of Norway, Bergen, Norway
4. Little A.D., 2004, *Identification of Leadership Qualities for Effective Safety Management*, Final Report to Maritime and Coastguard Agency, Reference 17767, Cambridge, UK
5. Marine Accident Investigation Branch (MAIB), 2004, *Bridge watchkeeping safety study*, Southampton, UK
6. Merchant Navy Training Board (MNTB), 2005a, *Deck cadet training manual*, London, UK
7. Merchant Navy Training Board (MNTB), 2005b, *Planned training at sea - guidance for companies and seagoing officers*, London, UK