NEW DEVELOPMENT OF COMPETENCIES FOR YOUNGER LECTURERS ACCORDING TO STCW AND TRAINING SYSTEM REQUIREMENTS

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Abstract. In the past, the maritime education has based on the experience of lecturers with different specializations in maritime field, former deck and engine officers. Today, age of lecturers interests in academic field start to decrease, many of these beginning their career right after finishing the studies. In this case, the competence background for students training is based only on the knowledge added during the studying years. To cover this deficiency, maritime universities have to develop programs to train the trainers, based on requirements of international standards and in force Conventions, mainly by STCW Convention, and also based on the calls of educational system to acquire specialized personnel in institutions. In this light, Constanta Maritime University, developed last year a project dedicated to the improvement of competencies for younger lecturers and also to up gradation of skills for experienced lecturers. A significant part of this project is designed to form competencies according to STCW Convention requirements for lecturers who will teach knowledge regarding navigation, ship handling, cargo handling and ship engine. The present paper shows the way these training procedures will improve the competencies and skills of younger lecturers in order to provide more competent officers for the world fleet.

INTRODUCTION

Today, the maritime industry is in a continuous development process. Last generation ships reach an automatic and computerized level difficult to be imaged twenty years ago. Human work onboard decreases in volume but become more complex and strain due to technologies involved in navigation and engine activities, technologies which request a higher level of knowledge and training and new competencies for duty. Beside the technology evolution onboard ships, regulations and rules have changed, becoming more elaborated and requesting for applying familiarized and well known persons. All of these bring the necessity of more trained personnel onboard with skills in concordance with the ship equipment and designation.

Taking account all these changes produce in ship design and onboard equipments, development of new training processes and competencies have necessary to be creates in time. To assure the coverage of the latest maritime industry requirements, the training institutions have been oblige to change or provide new curricula's according with industry improvement and development. These curricula changes have imposed development of new training competencies and new or special trained trainers, capable to understand and provide specialized training to onboard personnel. New directions have appeared, like use of simulators and computerized programs in the training process, all of these requesting trainers able to work with them. Many of the newest training equipments have imposed by the International Maritime Organization and European Commission, through a number of directives, as compulsory in the training of the already and future bridge and engine officers.

As part of the training system, maritime academics must accomplish endowment with simulators and operational software programs, to provide right lecturers to perform on these equipments or, if have not in own staff, to bring in the system new persons. Where the solution found has to bring new persons in the

system, many of the new lecturers come from the graduates or former graduates after a number of onboard duty years. The new arrivals have the advantage of a good knowledge of the new technologies, they living in a high technology era, but needs training to become a good student's trainer, mainly to provide training according with the industrial field requirements and with the academic aspirations.

THE TRAINING PROCESS AND MARITIME INDUSTRY REQUIREMENTS

Now, after the ships have been modernized, armed with computerized equipments and high technology in order to provide a safety operation, to increase protection of the human life and of the environment, is the time to improve people capabilities.

These requests can be solved through a better learning and a training period before taking responsibilities onboard. During this period, they must be teach about new ship types, their characteristic operations, the differences between different types, about technology already onboard, configuration and operation, situations which can be met during a voyage, organizing and managing of onboard activities and duties and about everything is necessary to provide a rightful and safe activity.

This is in our duties, as academic staff, to satisfy the present requests and necessities of the maritime industry, to provide people, both deck and engine officers able to work and react in different conditions and situations encountered during activity.

The maritime universities have important duties and responsibilities near the maritime activities. The maritime academics do not have only one role, that of training, they are also formative institutions for maritime officers, including personality modeling and developing a responsible behavior of their actions. Is human nature to borrow from other people's personalities, from teachers or trainers in these cases. Being examples, the teachers have to show only the better part of their personality, oriented on their professional knowledge and skills and to correct the intention of the trainees to become a copy, to help them develop their own personality, based on a model.

For this, is important for teachers to use in the training process their experience in working with people, to complete theoretical knowledge with practical examples and advices. To do these is necessary that teachers to possess an adequate level of training and to have knowledge's from domains complementary to their teaching area. These can be achieved from their start in teaching activity in the academic field or in time through periodical updates.

Trainers trained from the beginning of their academic carrier, is a more acceptable condition, they having still fresh the theoretical knowledge acquired during studies period. It will be necessary just to familiarized them with the teaching techniques, how to use different teaching materials and learn them to touch the maximal goal, in order to have at the end good prepared people for their future professional life. For teachers with years of activity in the training process, the scope is to keep them in line with technological development, to convince them to pass from classical teaching methods to the new ones, to include in their activity the use of computerized and simulated application, also distant open learning and e-learning concepts.

Starting from these ideas, Constanta Maritime University developed a project addressed to lecturers, new in domain or experienced; inside of it, has been created a curricula of courses based on actual requests for training level of trainers. The generated courses are focus on techniques and methods for conception of teaching materials, to involve latest technology in the teaching process, to develop new methods of approach between students and lecturers, how to facilitate the interaction between them at class in order to stimulate students'. Another important section of the present project is dedicated to involve younger lecturers in the teaching process of the mandatory IMO courses for deck and engine officers. Taking account the particularity of these courses and requirements for trainers aptitudes, during the project, younger lecturers will follow special courses in order to certify them as IMO trainers and competencies evaluators.

YOUNGER LECTURERS' COMPETENCIES DEVELOPMENT PROJECT - CONCEPTS AND DEVELOPMENT

The general objective of the project is represented by multidisciplinary researches concerning initial and continuous formative of the lecturers from maritime universities and providing of advancement programs according with the maritime industry requirements.

Achieving of this objective will lead to increasing of maritime lecturers competencies and also will make attractive for graduates to come in the system.

According with equal chances concept, can be observed, that in an activity domain dominated by the male, attendance of females is not treat as abnormality. As long women are presented onboard ships, in many cases in managerial position, their presence in the maritime universities is not treated with skepticism.

The development of the maritime industry imposes the implementation of a framework for providing of advancing programs due to continue changing of this activity domain.

To achieve the project general objectives, specifically objectives are generated, as:

- Increasing of lecturers competencies through promotion of knowledge's and technologies in the academic maritime field.
- Creation of a development, update and on-line management framework for initial and continue formative of the human resources.
- Realizing of studies and analyze to define formative programs dedicated and an optimum correlation of these with maritime industry necessities.
- Increasing of access and participation of lecturers to formative programs and to obtain a double qualification.
- Encouraging of lecturers to maintain a high qualification level through participation at specialized courses.
- Introduction of carrier advancing opportunities for younger lecturers.
- Verifying of the process and teaching activities through initial and continue formative programs in scope of improvement of TIC using level.

All these objectives are based on premise than continue learning is the main condition for restructuring and development of educational and formative systems, for assuring of decisive competencies during life and to realize the coherency between persons involved in maritime academic system.The project square up many horizontal objectives as durable development, innovation needs and transnational approach.

Durable development has as scope the give up of traditional methods for lecturers formative. Will be followed the alignment to actual and future requirements of the international maritime market, the expected result being represented by a next generation of competitive seagoing officers. The formative objectives will be not state just in theory, it will be extend to objectives focused on knowledge, action, cohabitation, personal and social innovation. In this scope will be taken in consideration economical aspects, problems regarding environment protection, right manage of human resources, all of these resulting in promotion of a durable global development.

This project tries to involve maritime lecturers in international maritime transport framework, to put them in direct contact with the end users of their work, the companies from maritime industries and to know exactly their needs. The international maritime companies are the necessary source of information's regarding worldwide requests for employ of maritime personnel.

Collaboration with partners from maritime field, as project objective, will be found on communication and information changes to identify and implement of adequate modalities to increase the number of work places and to optimize these.

Initial and continue formative activities for academic staff supposed training in modern teaching techniques, IT domain, simulation applications and in human resources management.

The courses generate for younger lecturers will cover areas of interest as "Teaching curricula development", "Using of simulation techniques during training process", "Advanced concepts in virtual learning method", "Human resources management in maritime academic", "Maritime academic system development in knowledge management context", "Use of new technologies for research purpose".

These courses have importance in the context of changes in the maritime training system, where in the present it seen the tendencies to pass from theoretical base to theory-practice combination.

"Teaching curricula development" is a course dedicated to familiarize younger lecturers with actual premise requested by maritime field curricula which must contain IMO requirements, as compulsory, also new elements imposed by technical development in the sector. Here are explains modalities of curricula conception, contents, compulsory elements, hours repartition on course and practice, detailing of each course and practice class, trainer and trainee manual elements, use of electronic course development and ways to be delivered to the trainees and other aspects characteristic to each curricula.

Second course developed, is one of the principals, here is describes the actual simulators used in the training process and present in the university possession. There are included simulators of ship handling and navigation, liquid cargo operation, engine operation and crisis situations.

Simulators are new teaching techniques introduced in the training process. Once appear these request persons trained for their use. The increased necessity of simulator training asks for more persons able to use it. For this, younger lecturers can be the ideal solution to become simulator trainers and the present project course let them to enter in this area of training and provide knowledge's and practice in simulation.

"Advanced concepts in virtual learning method" is a course created according with the European initiative to improve the education system through a better communication between actors using the advantages offer by the latest technologies, the virtual world. The concept develop in this course is over the present idea of virtual learning, treat as a web based systems, where are posted materials with scope to be downloaded or accessed to be read on the web. The next level in this trend is to create the "virtual teacher", a technology based on interaction between teachers and students on a virtual platform.

Human resources concept in the present project is build on actual strategies in the maritime academic regarding management principals of human elements. The system changes made in the last period affect also the human resources manage, dividing personnel in sectors of activities, as teaching and research areas. Management of resources in teaching area supposed capabilities to organize academic staff on university curricula, to nominate right trained person to according course, to lead activities during course period, including student management on curricula activities.

Knowledge management represented a creation, maintain and consolidation process of knowledge's inside of an organization, for their use in the most adequate modalities to create values and to generate competitive advantages.

Knowledge management system is a specific technological system designed for the management of functional bringing in of distributed elements of hardware, software and network compounds in a single functional unit, which sustains knowledge production, acquisition and transfer processes inside one organization. In order to realize this design of knowledge management system in a virtual community is imperative to have a profound understanding of cooperation inside groups or organizations, this implying both artifacts and social conventions. This field consists beside computer sciences (knowledge engineering, distributed artificial intelligence, user interfaces) of some other disciplines: psychology, ergonomics, linguistics, sociology, organizational and management sciences.

At the end, but not in the last, the research activities are very important in lecturer formation and to this the project includes elements to help our younger colleagues to become good researchers. The scientific activities are based on the technological advance and the use of these is essential in many research fields. To be able to initiate and complete a research project suppose to know necessary technologies for it scope. Also are included techniques of research, ways to realize it and how to evaluate results in order to disseminate realizations to the scientific world.

Through this project is expected to create competencies for younger maritime lecturers and to improve the competencies of the older lecturer's.

The creation of courses bilingual, Romanian and English, permit other lecturer from national and foreign universities, maritime particular, to take part to these with impact in the number of persons included in the program.

Taking acknowledge of materials contained dedicated to initial and continue formative of maritime lecturers and after to reply with own evaluation, consideration and proposals for improvement of courses will lead to a better correlation of lecturers competencies with maritime industry needs.

CONCLUSIONS

The world economy is changing, the maritime industry, as part of it, is changing too and the requirements and necessities are remodeled. To achieve these new challenges is necessary to redesign the training system, the approach principles and people involved.

It will not be easy to change the actual format of maritime training system, mentalities or main topics approach. The transition must be started from the new lecturer's generation and completed with older lecturers through programs for initial and continue formation.

This program's idea has the advantage of mobility, the ability to reach to different generations, to shape up the content according to present requirements and to apply that parallel with the daily activities. Being based on printed and virtual components, it can be accessed by own personnel and by the outside personnel, from other universities or from economic field on interesting fields.

The courses developed in the project are created in the actual trend of maritime education and come to help lecturers to improve their competencies or to create new ones, particularly those related to the use of latest technologies, computerized and simulation procedures.The actuality of designed courses has been proven by the international interest in achieving of latest techniques inside the teaching process.

The competencies and qualification achieved at the end of the teaching processes contained the project, will make the maritime academic system more attractive, with competent personnel and able to provide to the maritime industry, well trained officers to face the new realities in the field.

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