



Enhancing “soft skills” management for maritime and shipping business personnel using interactive educational methods

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Abstract: The paper presents an interactive approach for educating and enhancing “soft skills” management for maritime and shipping industry personnel. Described are the most common and general soft skills which often appear as part of the cause for maritime incidents- leadership through positive influence, decision making, team work, communication, negotiation, conflict management and time management. Professionals working in the maritime sector acknowledge implementation of soft skills. This will ultimately facilitate better onboard working environment leading to improved productivity. Presented are initial empirical results from applying the case study method to develop soft skills among a group of students from four different countries and maritime academies.

Keywords: soft skills; case study method; maritime safety;

1. Introduction

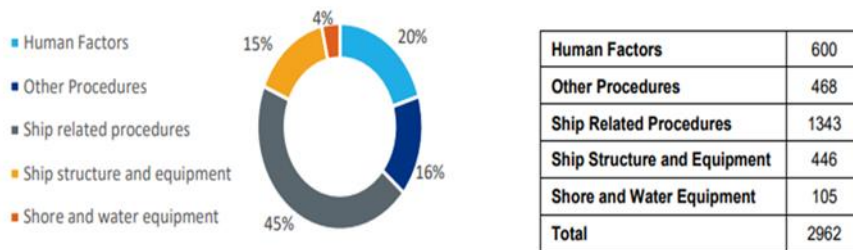
Considering the growing numbers of maritime incidents caused by human errors due to communication problems, intercultural and gender differences, leadership, ethical or moral issues a comprehensive framework for teaching “soft skills” will contribute to the contemporary level of education of maritime personnel both onshore and onboard. The ongoing developments related to globalization of the markets, the global transport and supply chains, the economic and financial interdependences have increased the understanding on the concept of soft skills in maritime education referring to a number of personal qualities, habits, attitudes and social characteristics that make someone a good employee or member of an organization who is preferable to work with. The most common soft skills which often appear as part of the cause for maritime incidents- leadership through positive influence, decision-making, team work, communication, negotiation, conflict management and time management require some academic methodological approach to refine the general knowledge and the practical implementation. This will ultimately facilitate better onboard working environment leading to improved productivity.

2. Human factor and the role of the “soft skills” for maritime safety

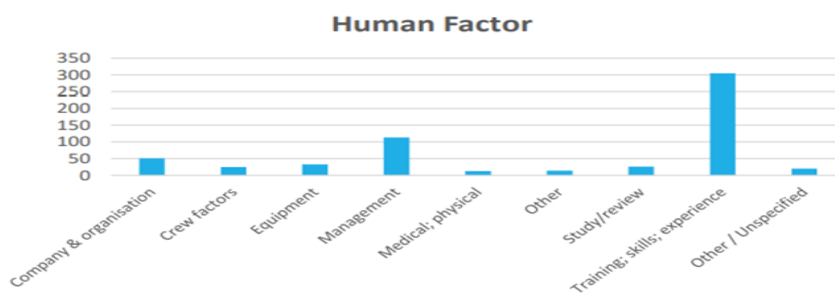
For many years, the shipping industry has concentrated on the physical condition of the ship and has spent little time on the other aspects that are now seen as equally important - the human factor, the performance of the master, officers and crews, and the manner in which the ship is operated. Good ship management requires control of all aspects related to the system “ship-people-operation”. The human factor is the most common cause of ship incidents. The incidents include pollution, collisions and grounding. Nevertheless, it rarely appears as the only factor and is usually a result or combination of additional technical circumstances or force major conditions. According to some authors, human factor is described even in context of an intelligent security system. This human-operator must possess and develop his natural intellect, which is the ability to collect, to process and to disseminate information through thinking and decision-making, to train and prepare, to accept the environment in order to adapt effectively and individually to solve each task. (Kachev, 2015)

In the maritime incidents, there is an evolving chain of errors leading to a negative outcome of the emergency. So, each accident has its own characteristics, should be carefully analyzed and examined. The examination shall address the probable causes, the crew reactions, the equipment performance, the procedures order, and the preventive and/or corrective follow up actions. Based on that assumption EMSA (European Maritime Safety Agency) offers an overview on the maritime safety fields addressed in the organizations’

recommendations for improving the maritime safety conditions and competence



Human Factors	600
Other Procedures	468
Ship Related Procedures	1343
Ship Structure and Equipment	446
Shore and Water Equipment	105
Total	2962



Company & organisation	51
Crew factors	25
Equipment	33
Management	113
Medical; physical	13
Study/review	14
Training; skills; experience	305
Other/Unspecified	20
Total Human Factors SR/AT	600

Fig.1. Distribution of safety recommendations/actions taken by focus area for 2014-2020

Source: Annual Overview of Marine Casualties and Incidents 2021, p.45

20% of the causes for maritime incidents are caused mainly by a human factor followed by a detailed overview on the categorization of the human factor types.

Fig.2. Distribution of safety recommendations/actions taken by focus area “human factor” for 2014-2020

Source: Annual Overview of Marine Casualties and Incidents 2021, p. 45

The statistics shows critical relevance of the training, the skills and the experience, followed by good management practices both of the crewmembers as well as of the shipping company or organization. The latter considers communication culture and effectiveness of communication whereas other factors influencing the human factor are diversity, leadership behavior, emotional climate, stress, fatigue, perception etc. In every of the mentioned aspects are incorporated some personal characteristics or combination of personal attitudes that contribute to someone to work in compliance with other people. Soft skills are prerequisite for better performance immediately leading to increase the safety environment and successful decision-making process. Incorporation of soft skills helps improve the career growth, the preferences of crew or team members to someone personal qualities, emotional intelligence, conflict management skills, empathy and situational awareness regarding the emotional climate among teams.

3. Teaching “soft skills” in the maritime domain using interactive educational method: the case study

A case is “a description of an actual situation” that usually involves a challenging situation or a dilemma, which requires analysis of the situation and the environment and leads to decision making. (Erskine et al.1981). The case study research method is “an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used”. (Yin, 2009)

A case study is a documentation of events and situations that have occurred in an organization or in a business. These events or situations are reported in their sequence by an interviewer and there is also a description of how the person/s concerned reacted to the situation. Case studies report already occurred events, with no judgmental opinions of the author, and thus stimulates the reader to think from his own perspective. The way in which the managers have responded to the situations or events are documented and this allows the reader to analyze the facts and make a decision. The most interesting case studies generally allow the reader to empathize with the key character in the situation and respond to a dilemma or a challenge. The case study does not focus on getting the right answer; in fact, there never is a single right answer for the case unless it is a mathematical problem. Emphasis is laid on the behavior of the involved persons, their manners and reactions during the process of coping with the situation, the deliberations involved and the practicality of the solution. (Vintzilaos, 2021)

The case study method is generally associated with Participatory Training that includes not only lectures and group discussions, but also role-play, simulations, structured exercises and instruments, case studies in a variety of forms, etc. Several other experiences are also used in Participatory Training, such as field visits, practice sessions, games, self-study, video review and others, which enhance the impact of learning. Therefore, according Vintzilaos “Guidelines for teaching case studies in the maritime domain”, the purpose of most trainings is a combination of developing knowledge, changing attitude and enhancing skills. Effective achievement of this purpose will depend on choosing the most appropriate method for each aspect. A useful framework to understand which learning methods are best suited for increasing knowledge, which ones for awareness and which ones for skill. (Vintzilaos, 2021)

A maritime case study seem to be a way to share the experience and wisdom embedded in the stories of shipping officers and other team members. Presenting a real descriptive event in a form of lively story engages participants intellectually and emotionally through their involvement in virtual decision-making, sharpening their analytical, problem-solving, and critical thinking skills. As a valuable outcome, they can understand events, interdependences or systems in the context of good seaman practices, leadership approaches or general good maritime practices. Case studies may be presented in written or verbal forms or through a filmed videos or filmed interviews. Interesting details should be taken into consideration, namely cultural preferences, appropriateness or even age-defined facts of the trainees. According the most experienced school in case study use, The Harvard Business school model, the cases are rigorous and challenging in nature as they comprise complex and often convolute qualitative and quantitative information. (Rebeiz 2011)

Managerial skills such as decision-making skills, leadership skills, communication skills, interpersonal skills, teamwork skills and integration abilities can be borrowed from the good business practices and implemented in modern maritime environment. So, putting the trainees in the shoes of the main decision maker, a person from the desired future-working place, from a prominent shipping company, from the global maritime business tend to attract the trainees’ caution and curiosity. Here comes the role of the teacher/professor whose contribution to the studied skills is crucial part of this educational method as well.

The trainer has a number of roles and responsibilities when conducting a case study training based on creating a good “feeling” with the trainees, a calm and disturb less learning atmosphere. Important might be to “shorten the distance” between professor and student, to be accessible and not distant, to predispose the trainees to ask clarifying questions, to try to get to know each student by dialogue and exchange of personal information. The practical implementation includes careful planning of the teaching process starting from providing the study material (the case study) through accurate briefing about the task, maintaining strict control over the trainees and navigate them what to do, when to do it and how to do it, monitoring the task performance, debriefing, summarizing and contributing with own input, knowledge and expertise.

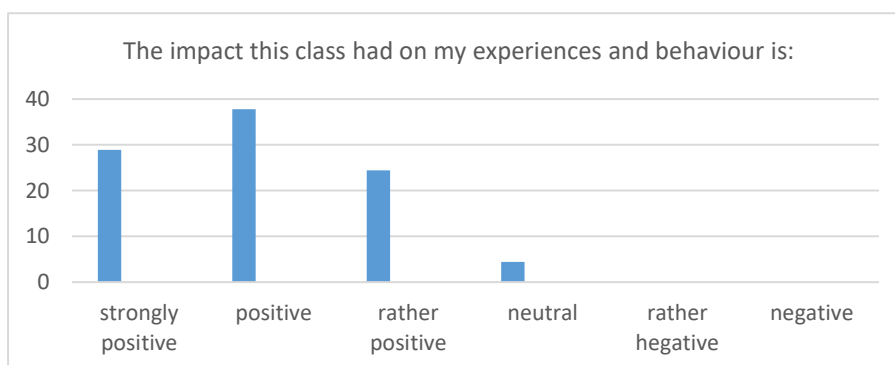
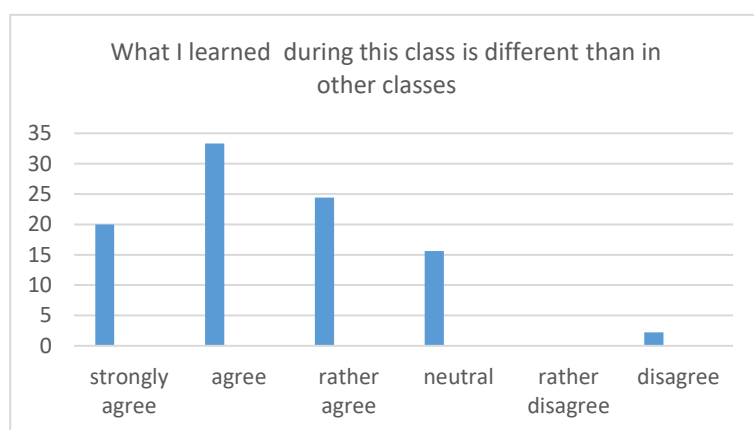
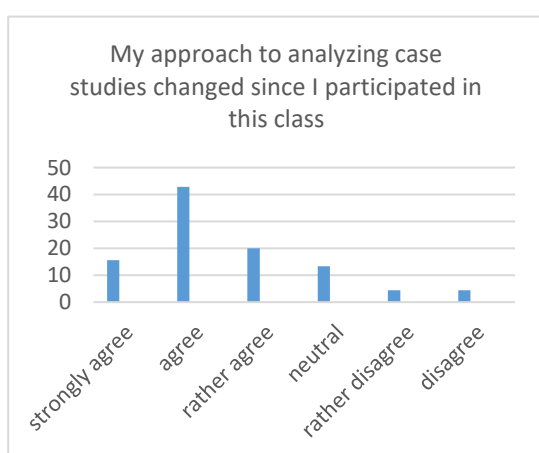
4. Empirical testing of “soft skills” case study teaching method in the maritime domain

A testing of methodological approaches from teaching “soft skills” through case study method was conducted among 46 students from four maritime universities from four countries: Greece, Romania, Turkey

and Bulgaria in April 2022 in Chios Island, Greece. They were all third year students from different specialties: maritime business and economics as well as navigation and ship engineering. The course was designed in five days testing five case studies, one case study prepared from each maritime academy. Five areas of “soft skills” were covered by the case studies: Communication based on trust; Leadership behavior to overcome gender bias; Personal conflict between superior crewmembers and steward department; Resilience case study onboard during COVID-19 pandemic; Leadership and teamwork in time shortage dealing with oil spill situation.

The teaching methodology followed the abovementioned approach: providing the text, clarifying the exact situations, the persons involved, the reactions, helping the students to understand all technical terms, assure that they get familiar with the whole process of the narrative. The students were divided in teams and by teacher’s navigation and control they had to solve different problems related to the implemented “soft skills”, they draw conclusions about advantages and disadvantages, explained why and situation outcome was positive or negative and finally, they were encouraged to share personal opinions, to think about alternatives in the decision-making processes. The case study lesson finished with summarizing the students’ performance, as well as receiving some additional remarks from the teachers. At the end, they filled a questionnaire testing their views, level of gained knowledge, the teaching methodology etc.

Example (Greek case study, first testing on initial impressions and methodological approach):



The initial results show high percentage of satisfaction among the students with a slight “mind change” effect that gives the legitimation to continue to teach and develop educational tools through the tested methodological approach. The specific working environment where members have significant differences based on national affiliation, culture, gender, and age requires establishing self-awareness in multi-directional aspects.

5. Conclusion

In the last decade, the issue of developing and maintaining “soft skills” in the maritime profession is growing on importance because of various trends including increased implementation of information

technology and automatization of the processes, standardization of the seafaring profession and related qualification training as well as some trends in the career development whereas younger officers are promoted faster due to labor market circumstances. Leadership and team management skills, diversity management skills and advanced communication skills related to the specifics of the seafaring profession should be assessed in more continuous, integrated and sustainable way using model courses on teaching “soft skills” where the case study method seems to meet the prerequisites for academic and good learning practices. By using real stories and events university students as well as professionals that are more experienced can be attracted to the topic and upgrade their skills.

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