

WAYS TO IMPLEMENT THE STCW MANILA AMENDMENTS FOR TRAINING IN LEADERSHIP AND TEAMWORK

¹UNGUREANU-CHIREA CARMEN,²CONSTANTINESCU ELIODOR

^{1,2}*Constanta Maritime University, Romania*

ABSTRACT

Team working is not identified within the revisions to STCW as a specific competence: rather it is referred to in terms of ‘*necessary team member(s)...*’ and ‘*...consideration of team experiences.*’ However, the impact of positive and negative behaviors on teamwork was clearly identified, and thus we believe it to be an essential behavioral marker. It is these specific training issues – sometimes referred to as *human factors training, non-technical training* – that we will address in this paper. With the introduction of new training concepts and training terms, such as *leadership & teamwork* we shall try in this paper to define and explain what is meant by those terms. Keeping advanced theory and knowledge simple we shall try to describe the training objectives and avoid making trainees, and possibly also trainers, afraid of the new subjects.

Keywords: *leadership, teamwork, competence, skills, training*

1. INTRODUCTION

All personnel are affected in some capacity by the STCW Manila Amendments so a detailed review of the IMO Conventions is required. The Convention is a legal document and is written for precision, not everyday clarity. Do not base your operational changes on hearsay because there will be many scams associated with these changes.

Major components of the STCW conventions were modified during the last revision in June of 2010. These amendments will bring the training requirements up to date for modern operational situations and technologies. Some of the changes from the Manila Amendments are:

- “Revised requirements on hours of work and rest and new requirements for the prevention of drug and alcohol abuse, as well as updated standards relating to medical fitness standards for seafarers”
- “New requirements relating to training in modern technology such as electronic charts and information systems”
- “*New requirements for marine environment awareness training and training in leadership and teamwork*”
- “Updating of competence requirements for personnel serving on board all types of tankers, including new requirements for personnel serving on liquefied gas tankers”
- “New requirements for security training, as well as provisions to ensure that seafarers are properly trained to cope if their ship comes under attack by pirates”
- “New training guidance for personnel serving on board ships operating in polar waters”
- “New training guidance for personnel operating Dynamic Positioning Systems”

The update marked in *italics* is especially important to this paper. Qualified personnel are important in every industry, but in the maritime sector you are to a greater extent dependent on the competence of the persons

serving on board. In a historical aspect the level of competence has been handled by the seafarers themselves or on a regional or national basis, which has meant that the level of training and competence of the seafarers could vary greatly.

Each competence is connected with a degree of requisite knowledge, understanding and proficiency. These denominations correlate well with those used in the taxonomy for educational objectives (Anderson, Krathwohl, Airasian, and Cruikshank, 2001). Some competencies are easy to assess, whereas others call for extensive planning.

Education is an ever developing process. This paper will prove that the training in leadership and teamwork education at Constanta Maritime University is in accordance with the latest international requirements, and what is more important, that the efforts of incorporate new topics will prove fruitful in terms of learning outcome for the students.

2. TAXONOMY OF EDUCATIONAL OBJECTIVES

There is a well spread and well accepted taxonomy of educational objectives created in the 1950’s by the educational psychologist Benjamin Bloom. The taxonomy, usually referred to as Bloom’s taxonomy, categorizes *skills and objectives for students*. Educational objectives are divided into three major domains: the cognitive, the psychomotor and affective domain. When it comes to educational objectives within the mariner’s area, the cognitive area is the most relevant. The cognitive area constitutes, among other things, skill objectives of knowledge, comprehension and application. These objectives correlate very closely to those of the STCW Code: *knowledge, understanding and proficiency* (Anderson, Krathwohl, Airasian, and Cruikshank, 2001).

- *Knowledge*

When it comes to cognitive levels, knowledge is considered to be the lowest. In this sense knowledge only requires that the student can recall previously learned material like facts, basic concepts and terminology. For *Leadership and Teamwork* course module this can be knowledge of the standard representational symbols used by different cultures. Test of such knowledge can easily be achieved through written exams.

- *Understanding*

The level of understanding or comprehension requires a deeper understanding of facts and ideas, which can be shown by interpretation and description. For *Leadership and Teamwork* course module, a trainee might be shown a picture for situation awareness and be asked to describe how the cultural differences operate: Group-Individual, Power Distance, Uncertainty Avoidance, Feminine-Masculine, and Short-Long term. Testing of comprehension can also be achieved in written format but would require more elaborate answers than just short ones.

- *Proficiency*

Proficiency is the highest of the skill objectives in the STCW Code. To demonstrate proficiency you have to apply acquired knowledge. To do this for example for *Leadership and Teamwork* course module a student can be asked to describe the importance of “closed loop communication” and how you achieve a good communication climate. The best way to assess application of acquired knowledge would be to demonstrate proficiency through practical examination.

2.1 Higher Education Institutions' Development

Any organization, public or private, and certainly also faculties and Universities depend on the knowledge, skills, expertise and motivation of its human resources. Development needs of teachers in these areas should therefore be amongst an organization's major and long-term goals. These developmental goals can be achieved by:

- providing teachers with training opportunities to achieve maximum effectiveness;
- ensuring that employees develop their skills and capabilities to be able to work efficiently and rapidly respond to changes within their organisations;
- improving performance of their present duties;
- ensuring that the best use is made of the natural abilities and individual skills of all employees for the benefit of the organisation and their career.

Development and training is a continuous and systematic process. The process of training should necessarily be directed to give every teacher a sense of professionalism, excellence, motivation and customer satisfaction.

2.2. Quality shipping needs Life Long Learning

One approach to conceptualising lifelong learning

claims it is concerned with promoting skills and competences necessary for developing general capabilities and specific performance in work situations. Skills and competences developed through programs of lifelong learning are vital for workers performance in their tackling of precise job responsibilities and how well they can adapt their general and particular knowledge and competences to new tasks. On this analysis a more highly educated and skilled workforce will contribute to a more advanced and competitive economy.

The economic justification for Lifelong Learning depends upon two prior assumptions: that 'lifelong education' is instrumental for a further goal; that the goal of lifelong learning is economics-related. This approach has now been re-assessed: it presents a limited account of the need for 'lifelong learning'. Another approach claims lifelong learning is good in and for itself. Its aim is to enable those engaging in it not arrive anywhere but 'to travel with a different view' (Peters 1965). This way people travel with wider, richer and more elevated perspectives. Indeed we may argue that human beings have a duty to themselves to seek that kind of improvement: see Kant: It is a duty of man to himself to cultivate his natural powers (of the spirit, of the mind and of the body) as means to all kinds of possible ends. Man owes it to himself (an intelligence) not to let his natural predispositions and capacities (which his reason can use someday) remain unused, and not to leave them, as it were, to rust (1964 cited in Bailey 1988: 123).

People can have their view of the world and capacity for rational choice continually expanded and transformed by the educational experiences and cognitive achievements offered by lifelong learning. This notion has been taken seriously by community groups, who have articulated and promoted other versions, styles and patterns of lifelong learning. In addition to the provision of lifelong opportunities available through traditional institutions and agencies, there is a trend for offering opportunities for lifelong learning by the creation and expansion of a range of community initiatives.

Lifelong learning offers people the opportunity to bring up to date their knowledge of activities which they previously had either laid aside or always wanted to try but were unable; to try out activities and pursuits that they previously had imagined were outside their time or competence; or to work at extending their intellectual horizons by seeking to understand and master some of the recent cognitive advances, that have transformed their worlds.

3. NON-TECHNICAL SKILLS. LEADERSHIP AND TEAMWORK

During everyday operation onboard a ship, technical and non-technical skills are integrated into each other and both skills need to perform tasks as safely and efficiently as possible. But there are important differences between them. The technical skills are related to a specific department, function or rank while non-technical skills are applicable to all. Most technical training has to be carried out with groups kept apart, divided into, for example, deck and engine. The non-

technical training may be carried out with no separation of people at all.

The assessment of technical and non-technical training also differs. Technical training can most often be assessed by means of a test. The assessment of non-technical training requires different methods. Students can learn about leadership and teamwork theory. Trainees may even demonstrate specific behavioral objectives of the training in a simulator in connection with the course. The challenge is to make safe and sound leadership and teamwork principles become part of a permanent behavior onboard after training. The trainees must understand the importance of the training. To succeed, trainers need encouragement and support for the desired behavior from the companies they work for. If the willingness to apply the theories would be related to the *attitudes of people*, the company support would be related to the *culture of the company*. The attitudes of people and the culture of the company are two important issues for the training to be effective and show intended results.

That is why at Constanta Maritime University the training programs are organized in such a way that the non-technical training according to the new STCW requirements is carried out as a separate training course (such as the Communication, Leadership and Teamwork course module) without mixing it with the technical issues. The major benefit is that all disciplines and ranks are able to come together in the same training class, receiving the same course contents, terminology and training objectives. As we previously mentioned, assessment of trainees in connection with the course is difficult and will not provide long-term evidence that the training has been effective. Trainers should stress that the initial training is just an introduction for the “real training” that starts onboard.

3.1. Constanta Maritime University and the STCW non-technical requirements

The purpose of this paper is to illustrate what course modules of Constanta Maritime University are needed to meet the STCW Manila amendments’ non-technical training requirements, such as Resource Management, Leadership and Teamwork.

The STCW sections that contain requirements related to non-technical skills are:

- Reg. A-II/1 for Bridge Resource Management
- Reg. A-III/1 for Engine-room Resource Management
- Reg. A-II/2 and A-III/2 for Use Leadership and Managerial Skills
- Reg. A-II/1, A-III/1 and A-III/6 for Application of Leadership and Team Working Skills.

The course modules that are delivered at Constanta Maritime University are sufficient to cover the STCW requirements. However, we cannot see it possible to deliver complete training in leadership and teamwork without discussing the basic issues related to attitudes and culture. We think that a requirement for a training certificate will therefore be to cover the “*Communication Skills*” and “*Cultural Awareness*”.

4. STCW MANILA AMENDMENTS COMMUNICATION SKILLS

When the STCW Conventions were amended in 2010 the foundation was laid for significant industry wide improvements for workers. Amendments to STCW cause a lot of controversy since they sweep across all business segments and directly impact every worker.

Globally, maritime workers are at risk because of the flexible labour laws of shipping in the developing world. Even the great industrial powers have exploitation of their workers since ship board work is out of sight and out of mind.

The Manila Amendments to STCW 2010 include many new training and certification guidelines. One of the minor directives aims to *improve interpersonal communications skills for all crew and ground personnel*.

One of the biggest benefits will come from improved radio communications. The transition from analogue electronics to digital has caused many problems because digital microphones commonly limit volume levels. This leads to an in and out transmission in noisy environments like a windy deck or in an open boat underway. Analogue transmissions would simply distort so you heard something but it was unintelligible. Digital radios in the same situation sound like the microphone is being keyed during the transmission.

Annunciation and radio traffic etiquette can also use some improvement to improve safety. Some radio traffic is very cryptic when operators have been calling the same security zone for ten years and their annunciation is sloppy and nearly impossible for visiting vessels to understand.

The universal adoption of English as the operating language of choice for mariners worldwide is going to make the transition to the new standards more difficult. Many maritime schools worldwide offer excellent foreign language training. It will be a difficult task to retrain generations of mariners no matter what their native language.

4.1. Communications Directives in STCW

The idea of sailors consulting a guide to etiquette is funny to you then you are not alone. This point of focus has the potential to be one of the richest sources of maritime humour in recent times. There are many serious consequences when communication is vague or indecipherable. In many accident reports communication is cited as one of the main contributors in serious incidents. Everyone involved knows the dangers of work at sea so it is reasonable to expect a crew to show some respect towards the possibly deadly situation.

Some of the serious consequences take place over a longer span of time. Ongoing, consistently poor communication will whittle away at crew morale since it is difficult to do a job that is poorly defined. The same is true of crew members who cannot express concerns or improvements to a situation. These are mostly face to face interactions we are talking about but it also includes written communications. These directives will impact everyone on crew from the Master, who must now refine

communications in the mountain of paperwork, to the deckhand who is now expected to have training to resolve differences in fair and equitable manner. There are some more realistic and productive parts of STCW Communications. The mentoring of crew by officers is likely to really tighten up working relationships and improve the workplace overall. This is closely tied to portions of the STCW Manila Amendments that require significantly more training and frequent re-certification.

5. CONCLUSIONS

Combining the STCW requirements related to leadership and teamwork in a syllabus is most suitable for a stand-alone course. While strongly supporting the introduction of non-technical skills in the STCW as such, there are still things that could be improved. We believe that it is a draw back to have the non-technical contents split up in different tables keeping departments and ranks apart. The different labels *Bridge Resource Management* and *Engine-Room Management* to the same content add to the confusion. During our meetings with our students that had been on board vessel for training, we often hear about the feeling of „us and them”-between ranks, between departments, and between ship and shore. To improve safety and open up to efficient communication.

and teamwork, such barriers must be brought down. We do not agree to non-technical training where target groups are kept apart. At Constanta Maritime University we develop the same course for all target groups with the purpose of establishing a shared view on how things should be done.

6. REFERENCES

- [1] IMO, *The Manila amendments to the STCW Convention and Code*, International Maritime Organization, 2010.
- [2] IMO, *International Convention on Standards of Training, Certification and Watch keeping for Seafarers*, International Maritime Organization, London, 2011.
- [3] FLIN, R., O'CONNOR, P., CRICHTON, M., *Safety at the Sharp End: A Guide to Non-Technical Skills*, Ashgate, Aldershot, 2008.
- [4] ANDERSON, L.W., KRATHWOHL, D.R., AIRASIAN, P.W., and CRUIKSHANK, K.A., *A Taxonomy for Learning, Teaching and Assessing -a revision of Bloom's taxonomy for educational objectives* New York: Longman, 2001.
- [5] REAY, D., *Evaluating Training*, London: Kogan Page, 1994.
- [6] BAILEY, K., *The conceptualization of validity: Current perspectives*, Social Science Research, 17, 1988.