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Core Values in Practice

Assessment of Marine Professionals’ Needs

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Nicoleta ACOMI¹*, Ovidiu ACOMI²

Abstract

Marine professionals represent a category of people with a wide area of competences. Their line of work often requires a wide range of technical knowledge and skills, along with transversal and soft skills acquired across multidisciplinary subjects. In addition to technical competencies provided through formal training, the predominantly temporary-based marine work assignments require skillsets that enable them to carry out specialised jobs. The challenge for this category of personnel is to maintain themselves up to date through continuous professional development. From a different perspective, training centres face similar challenges related to improving the existent curricula or proposing new training programmes to respond to the labour market needs. The present paper aims at exemplifying the utility of conducting survey-based primary market research for identifying the marine sector needs. The research method consists of establishing questionnaires targeting various categories of marine personnel and specific needs. Feedback was collected through an online survey during 2017. The questionnaires developed with filtering questions aim at involving trainees, lecturers, marine professionals, recruiters, career advisors and employers. This approach is thought to provide data of sufficient quality and quantity to meet the objective of reducing the gaps between the education sector and business expectations. The results of this study emphasise the views of the respondents with regards to the marine labour market. Based on the analysis of results, the authors proposed a set of solutions for developing the skills of marine professionals. The authors draw on the above and assert that continued data collection through online survey may result in closing the existing and emerging gaps.

Keywords: Marine professionals, maritime training, labour market, market survey, marine careers.

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1. Introduction

In the context of the challenging shipping industry environment, there is a continuous concern for the educational world to provide training in conformity with the marine worker’s needs and labour market expectations. According to the “Rethinking Education Initiative” 2012 [1], in order to build “skills for the 21st century”, efforts are needed to develop soft skills to enhance employability.

2. Problem Statement

During the “Maritime Skills Roundtable Discussions” organised by IMarEST (professional association) and MatchTech (global recruiters) for the purpose of “mitigating the skills gap in the maritime and offshore market”, 2015 [2] the participants discussed “any competences that you […] feel graduates are lacking”. The results showed that 71% of them considered that graduates were not leaving university with all the expected competences. These were evenly distributed between lack of industry competences and soft skills. It was recommended to “formulate a transfer of skills programme to attract engineers from other industries”.

3. Research Questions/Aims of the research

Acknowledging the differences between the marine professionals’ skills, the business expectations resulted from the newly developed marine technology on board and ashore, and the educational sectors, the research aimed at identifying the existing gaps from the different stakeholders’ point of view. In this respect, the questionnaires developed with filtering questions sought to involve trainees, lecturers, marine professionals, recruiters, career advisors and employers. The present paper aims at exemplifying the utility of conducting survey-based primary market research for identifying the marine sector needs.

4. Research Methods

Recognising the role of the marine training organisations in supplying competent workforce which meet the labour market demand, and the input from the marine stakeholders in uncovering detailed requirements of the training curricula, the research team chose to conduct focus groups and survey. The research method consists of establishing questionnaires [3,4]
targeting various categories of marine personnel and specific needs. These methods served to identify the gaps between the educational field and the marine business expectations.

Before embarking on the survey, the DivSea team conducted focus groups [5,6] among collaborators of partner institutions. The focus group analysis, which identified the main categories of marine stakeholders, contributed to the high-level understanding of the needs and to the development of questionnaires relevant for the poll. The identified categories of marine stakeholders were: learners, marine professionals, lecturers, recruiters, employers, career advisors.

The survey was conducted online among respondents from Europa from 14th February to 10th March 2017. The respondents were selected from the collaborators of the research team institutions and they were invited via e-mail, phone, face-to-face or social media channels to complete the survey.

5. Findings

5.1. Composition of the survey respondents

The online survey addressed nine categories of marine stakeholders: learners (student, trainee) with sea time experience, learners (student, trainee) without sea time experience, marine personnel (employee, worker) working onboard, marine personnel (employee, worker) working ashore, lecturers (professor, instructor, trainer) teaching marine specific subjects, lecturers (professor, instructor, trainer) teaching fundamental subjects, career advisors, recruiters and employers. The survey consisted of a total of 211 completed responses, distributed as presented in figure 1.

![Figure 1. Distribution per group of respondents](image-url)
The distribution of respondents per country, figure 2, showed responses from Netherlands, Romania, Bulgaria, Portugal, Greece, Italy, UK and unknown.

Figure 2. Distribution of respondents per country

5.2. Key findings

The information below summarises the feedback collected from different categories of marine stakeholders, on similar issues. The set of questions addressed general queries: knowledge areas that would help in career progress, the attractiveness of industry sector, study skills, soft skills, contributors to employability. The intention of this approach was to estimate the gaps between education, marine professionals needs and business expectations.

- More than a half of the respondents who were asked to indicate the knowledge areas that would help in future career progress (figure 3) selected: marine environment, marine and cargo survey, ships maintenance, operations management, cargo & ballast operation, and health & safety, which may indicate the direction in which they intend to focus their training.
By far the largest number of respondents who were asked to indicate which industry sector would be in their opinion more attractive in five years (figure 4) indicated: ports, offshore renewables, offshore oil & gas and marine engineering, which emphasise the marine areas where they intend to apply for jobs.

Figure 3. Distribution of respondents per “Knowledge areas”

Figure 4. Distribution of respondents per “Attractiveness of Industry Sector”
• A large portion of the people surveyed was of the opinion that they require improvement of the following study skills (figure 5): Writing reports, Presentation skills, Critical thinking, and Reflective thinking, which shows the need to be addressed during formal as well as non-formal education.

![Figure 5](image)

**Figure 5.** Distribution of respondents per “Study skills to be improved”

• The majority of the people surveyed reported that the most relevant soft skills for coping better with the marine career (figure 6) are: effective communication, leadership skills, team working skills, problem-solving, managing stress, which demonstrate that working in the marine sector is a challenge and the success factor is the manage people and stress.

![Figure 6](image)

**Figure 6.** Distribution of respondents per “The most relevant soft skills”
A significant percentage of those who responded agreed on three factors that could increase the chances of employability (figure 7): Professional behaviour, preparing for an interview, and CV & Cover letter, which proves that guiding of future employees in accordance with the labour market needs is an issue that needs to be addressed.

Figure 7. Distribution of respondents per “Increasing the chances of Employability”

6. Discussions

Out of the total number of 211 respondents, only 16 were Employers or Recruiters; their answers are considered of sufficient quality and quantity for the purpose of the survey. However, these numbers reflect the potential for improvement in the relationship between partner organisations and the labour market, and generally in the market orientation of the education institutions. This argument holds true for career advisors, a category which did not register any respondent.

The approach of conducting focus groups to identify the categories of marine stakeholders and the types of questions addressed is thought to provide data of sufficient quality and quantity to meet the objective of reducing the gaps between the education sector and business expectations.

7. Conclusions

Based on the results of the survey the few areas appeared to contribute to closing the gaps between educational sector and business
expectations: communication with stakeholders, teamwork exercises, self-assessment, counselling and market orientation of the training providers.

Communication. For the purpose of the survey, the questionnaires were developed to respond to actual needs of marine stakeholders. To continuously improve the training curricula, it would seem necessary to maintain communication with stakeholders and use the survey instrument to collect marine labour market needs.

Skills improvement. In light of the results of this survey, we would recommend that practical exercises were included during training; this would foster trainees’ teamwork and decision-making skills. Debriefing on behaviour and team dynamics would also add value to the exercise.

Skills recognition and validation. The introduction of a system for self-assessment of skills acquired through formal and non-formal education would enable the users to identify the areas where their knowledge might be improved. We consider that the development of set tests would guide the users towards ranking their level of knowledge and recognition of learning outcomes.

Counselling. Considering that the survey did not receive feedback from career advisors, it is recommended that partner institutions and generally the education and training organisations would further develop relations with this category. That is because Learners considered that career guidance and mentoring could increase their chances of employability. With regards to mentoring, we would recommend development of mentorship programs, which would facilitate the direct contact of learners with the experienced marine professionals. That would complement the existing in-house and third party career advice centres.

Market orientation. It is also recommended to improve the market orientation of the education institutions, with emphasis on the relationship with marine employers and recruiters.

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