

Preliminary results of the identification of entrants' approach towards maritime career

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Abstract: In a perspective of diminishing attractiveness of a career at sea and the continued growth of the fleet, the aspect of promoting employment at sea among young people, is in the spotlight. The 2010 International Convention on Standards of Training, Certification and Watchkeeping (STCW) Convention encourages the international community to promote sea-going employment among young people, especially women. With tens of thousands' shortage in the number of qualified officers, the future of industry responsible for as much as 90% of global trade is at stake. Various solutions are proposed, including attractive cadet trainee programs, to encourage young people to work at sea and pursue their careers over the years. However, it remains unclear what are the main thoughts of the entrants while enrolling in a maritime education and training (MET) institution and how they change in the first years of education. To investigate this issue, a study has been performed on the newly-enrolled Navigation students of the Gdynia Maritime University by paper-based questionnaires distributed to them on one of their first courses at the University. Students complete a similar questionnaire again on one of the last courses, just before graduating from the university. At this point, they already have their first seagoing experience. The herein paper presents the initial results of the study which we intend to continue and possibly expand. Different aspects of entrants' attitude towards their career development like motivation to join the fleet have been investigated. The results of this study may prove valuable in determining future seafarers employment and retention policy-making recommendations aimed at attracting new entrants and retaining them in a number sufficient to sustain the operations of maritime transportation. Additionally, identifying the social aspects of further seafarers can be important in relation to the prospective implementation of Maritime Autonomous Surface Ships. Future research directions include expanding the study involving cadets from other universities and departments (like Marine Engineering). Performing such cross-national study would be a good opportunity to also strengthen inter-MET cooperation and create a global framework for attracting new entrants.

Keywords: maritime education, maritime training, seafarers, employment policy, maritime transportation

1. Introduction

Shipping is responsible for the flow of commodities on a global scale [1]. As every industry, people are its central part - and only those designing and constructing ships, handling cargoes in ports and managing the process. The most critical workforce are the seafarers, without whom the ships would be nothing more than dead steel structures floating in the water. Even with postulated attempts to reduce the crews down to zero and implement autonomous or even crewless merchant vessels [2], the human element in maritime operations will not be eliminated. As a matter of fact, the employment gap in the number of qualified seafarers and officers is estimated as thousands of people [3], but it has also been argued that this may be an effect of a structural mismatch [4].

Nevertheless, it remains a fact that the shipping industry requires a constant flow of a new workforce to sustain itself. This workforce is a product of Maritime Education and Training (MET) institutions, which are run by private and public entities specifically to train young seafarers and increase the qualifications of those who already have a sea-going experience. From the global perspective however, it is the entrants that should be in focus, which has also been reflected in the Resolution 12 of 2010 International Convention on Standards of

Training, Certification and Watchkeeping for Seafarers (STCW) [5]. Therein, a number of actions are recommended to attract young people in the shipping industry.

To this day however, to the authors' best knowledge, no comprehensive, long-term study has been performed to investigate the motivation of young people to join the [merchant] navy, see the world, and how these change upon their first contact with the sea. Although it has been postulated in 2015 [6], the contemporary scientific literature still lacks the research on the attitude of entrants to their future profession. Some attempts have been made in this respect, but were rather isolated and focusing on different, selected aspects of the issue [7–12]. With our research, we intend to bridge this gap by approaching it in a long-term, comprehensive study on the cadets of Gdynia Maritime University.

The purpose of this survey is to support the ongoing discussion of seafaring aspirations and maritime profession perceptions by answering the following research questions (RQs):

RQ1: How is the perception of the seafaring profession changing in the first years of education?

RQ2: How long did the entrants initially plan to work after graduation and how did it change after completing the cadetship period?

RQ3: Can certain recommendations be made based on the above conclusions in order to maintain adequate motivation to continue working in the seafarer profession after graduation?

For this purpose, a four-year comparative study in the group of newly admitted students and after three years, shortly before graduating - after completing the maritime internship were carried out. The students participating in the study are from the Gdynia Maritime University, one of the three tertiary-education METs in Poland.

The herein paper is structured as follows. Section 2 introduces the process of data collection. Section 3 presents the results of the survey, which are then discussed in Section 4 along with formulation of policy recommendations and listing known limitations of the study. Final Section concludes the paper.

2. Materials and methods

The research aimed at identifying the motivations, fears and perspectives of the perception of the seafaring profession among newly recruited students was initiated by authors in 2015 at the Gdynia Maritime University in Poland. For this purpose, a questionnaire was prepared, which students filled in during one of the first classes. These studies are continued in an unchanged form so as to ensure a long perspective.

A group of students subjected to the first study in 2015 was again asked to fill out a similar questionnaire shortly before graduation in order to identify changes in their perception of the seafaring profession. This was in 2019, after some three years of a theoretical education at the University and at least a single contract as a cadet on a commercial sea-going ship. The last courses in the University are organized in small groups of maximum twelve participants, which makes it difficult to carry out this questionnaire among a large group of students. The same research was carried out in the group of students in subsequent years, which allowed for the comparison of these changes in the continuous period of four years 2019-2022.

Again, as in the initial questionnaire carried out by the new entrants four years earlier, cadets were asked to provide answers regarding their motivations, hopes, expectations and fears related to their chosen seafarer profession. The questionnaire questions were prepared in various forms. They included both open and closed questions, some of them based on expressing opinions through a 9-level Likert scale. In the herein paper, we only present the most relevant and interesting findings.

3. Results

By introducing an additional exit-questionnaire to the research that has been carried out already for seven years in total, the following issues were selected for the purposes of this article. Firstly, a comparison of how the perception of the seafaring profession changed in subsequent 2019-2022 years before starting education and just before graduating from the university, results of which are given in Section 3.1. Then, it was verified how long they initially (when entering the University) planned to work in seafarer profession after graduation and how it changed after completing the three years education and cadetship period, on which Section 3.2. elaborates.

3.1. Change in the perception of the seafaring profession

In the entry questionnaire, students mostly perceived jobs in the seafarer profession as well-paid and interesting. This perspective has not changed significantly over three years of education and the first experience with the future profession during on-board practice. In the exit questionnaire, these are also the perspectives with which the students agreed most. There has only been a slight change in the form of more of the strongest positive answers (completely agree). This change is presented in Figure 2

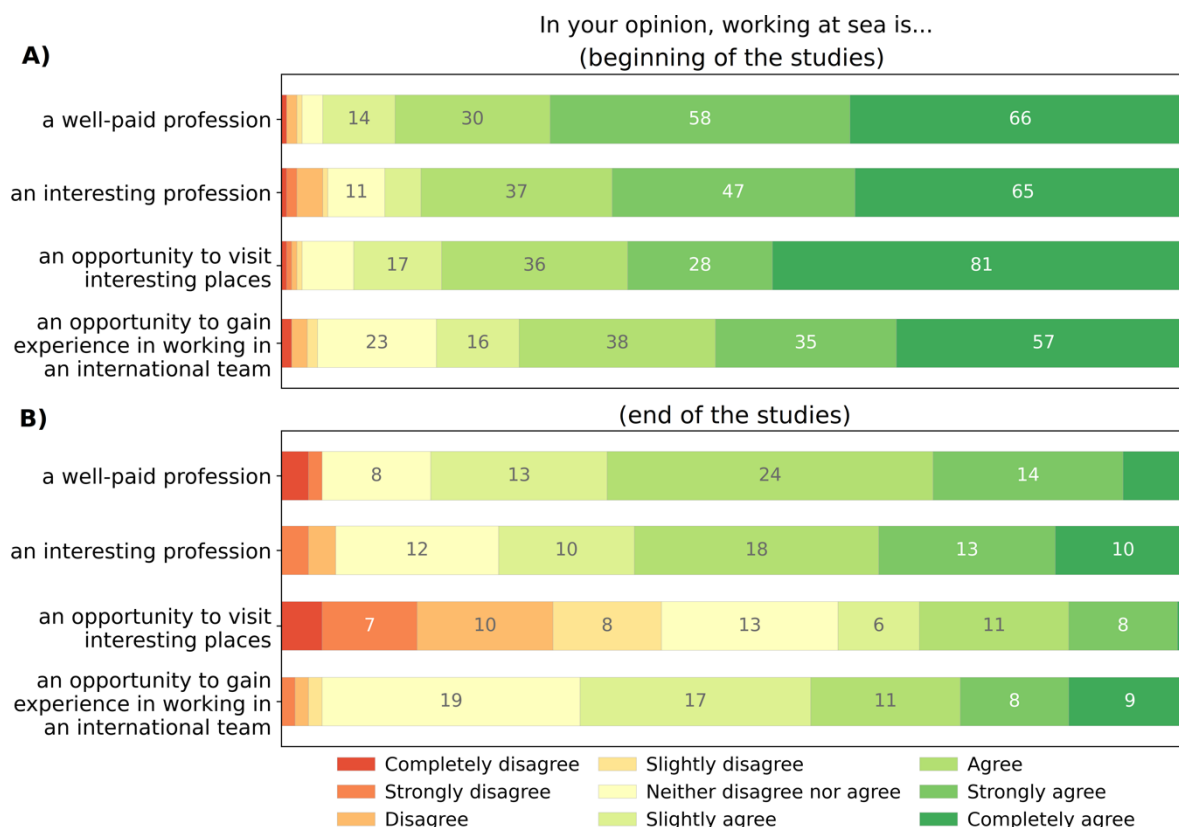


Figure 1. Change in the perception of the seafaring as a profession before and after first experience of working on board the vessel

On the other hand, there has been a significant change with regard to the perception of seafaring as an opportunity to visit interesting places. While in the entry questionnaire it was an option with which the students agreed most right after a well-paid and interesting profession, in the exit questionnaire, the students do not agree on this fact anymore. This perception could have been significantly influenced by the COVID-19 pandemic causing travel restrictions which have been referred to as a humanitarian crisis [13]. However, already in 2018 and 2019 it was observed that students who returned from their first cadet trip do not notice that the seafarer's profession will allow them to visit interesting places in the way they thought before starting their studies.

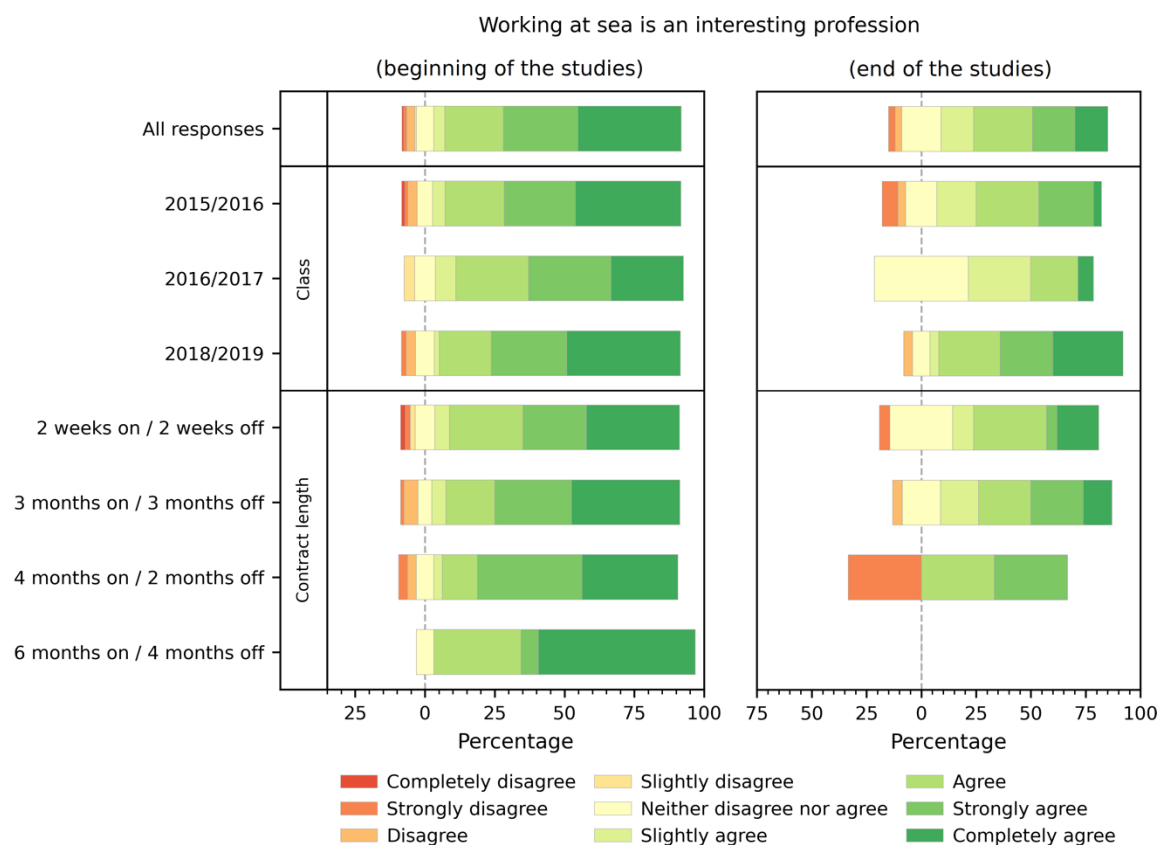


Figure 2. Change in perception of seafaring

With regard to the work regime, it can be noted that in the exit survey the entrants declared shorter duration of the contracts than during questionnaires filled at the beginning of the studies. This can result from a change of their perception caused by sea-going practice and onboard experience gained during the studies.

3.2. Plan to work as a seaman

Another aspect of which changes could be observed after the three-year period of education at the university and completed cadetship period on board the vessel is the assumed period of professional activity after graduation. In 2019 and each subsequent year, a significant change can be observed when comparing the expected career length declared in the entry and exit questionnaires. What is more, there is also an increase in the number of people who declare that they would not work at all in the seafarer profession after graduation, as depicted in Figure 3.

4. Discussion

The obtained results are discussed in Section 4.1. The consecutive Section 4.2. formulates recommendations based on them in order to maintain adequate motivation to continue working in the seafarer profession after graduation, while Section 4.3. discusses limitations and uncertainties related to the performed study.

4.1. Findings

The obtained results showed a significant change in the perspective of seafarer profession upon starting maritime education and before graduating from the MET (RQ1). The seafarer profession among the students surveyed in the second questionnaire is still considered well-paid and interesting, but not to the extent that they assessed it in the entry questionnaire. The reason for this change may be the lack of reliable information about the future profession before starting university education, as well as the first experience gained from the on-board practice. It may simply be that the perception of the occupation does not match the reality, at least from the cadet's viewpoint as an entry-level, low-salaried, and inexperienced worker.

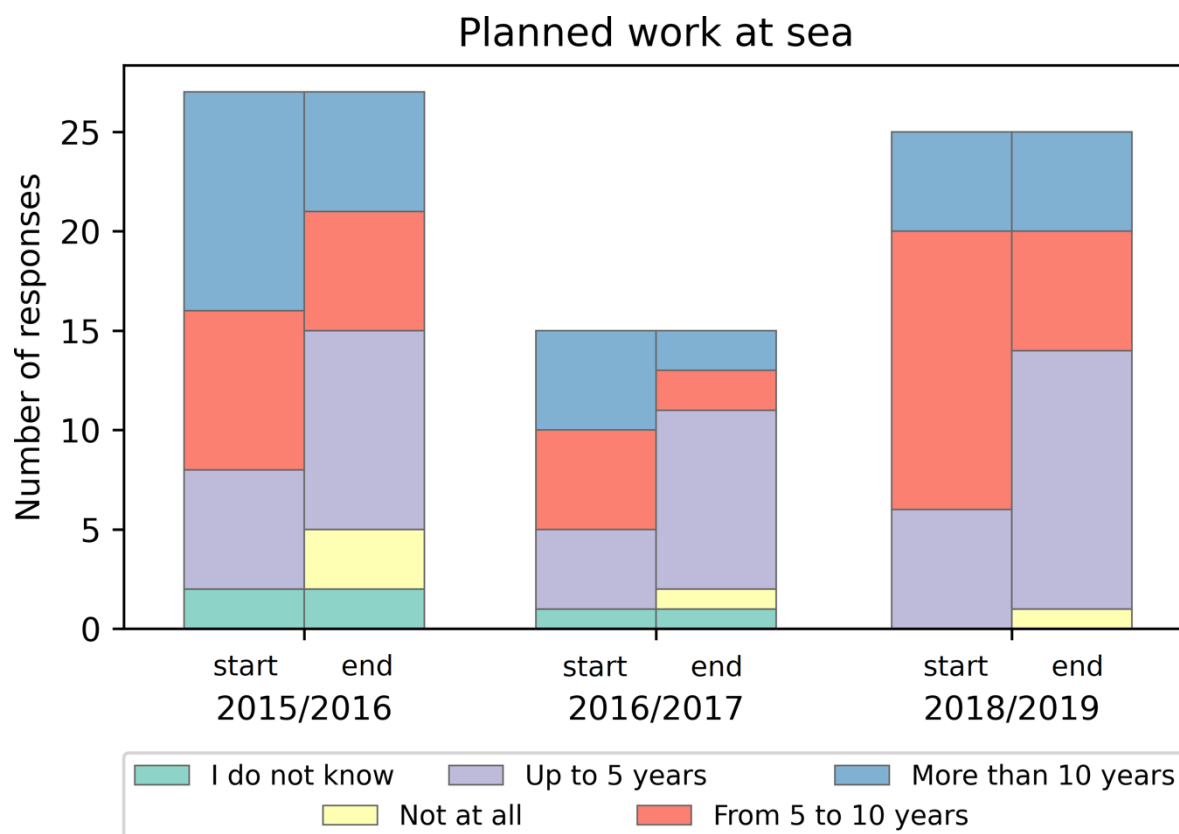


Figure 3. Change in assumed and actual plan to work as a seaman

Significant changes were also observed with regard to the assumed time of professional activity after graduation (RQ2). A large group of the new entrants who did not yet have experience in the seafarer profession assumed in the surveys that they would work in the profession for up to ten years or even more. For a group of cadets after their first years of education and on-board practice, subjected to an exit survey, these responses are rare. The largest group of people declares their willingness to work in the profession for up to ten years.

4.2. Recommendations

Based on the presented and discussed results, certain recommendations can be drafted (RQ3). The ultimate goal of these is attracting new entrants and maintaining an adequate level of cadets motivation to continue working in the seafarer profession after graduation. The maritime administrations, crewing companies, and METs shall therefore consider the following.

Consider increasing efforts to genuinely familiarize new entrants with all possible aspects related to the future profession. It is possible to achieve this by organizing additional seminars and meetings of cadets with people actively working in seaman's profession;

Improve the on-boarding process of entrants to make their first trip on a commercial vessel an introduction to the hardship of life at sea, but not a traumatizing experience. If it is the latter, these persons who might have been passionate and excited about their future job may simply walk out and never go back;

Carry out a more comprehensive survey on an international scale investigating cadet's perceptions and attitudes and how they change across their career span.

4.3. Limitations

The main limitation of the study concerns an unequal number of the respondents during initial and exit surveys. These inequalities may affect the results of the study, especially when a particular class or group is analyzed, but should not impact the general trends among the entrants. Therefore, the results presented as a share of the responses rather than number of answers should properly reflect the entrants' attitude and tendencies concerning their seagoing career.

5. Conclusions

The objective of the performed study was to investigate how the students' perspective of seafarer profession and career changed during their first years of education including their first seagoing cadetship period. To this end, 67 deck department cadets were questioned, members of four classes enrolling to Gdynia Maritime University. The survey is planned to be continued in the subsequent years.

The obtained results indicate that the perception of the seafarer profession and the planned length of the future professional career differ significantly from the initial assumptions of the new entrants. Therefore, it is necessary to take appropriate measures to maintain an adequate level of motivation to continue working in the seafarer profession after graduation and enable them to become familiar with the various aspects of maritime work as early as possible. This can be achieved by implementing recommendations that will be drawn up on the basis of research carried out on a wider group of MET participants from other universities at all stages of their education and at the beginning of their professional career.

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