

SUB-COMMITTEE ON HUMAN ELEMENT,  
TRAINING AND WATCHKEEPING  
7th session  
Agenda item 10

HTW 7/INF.6  
20 March 2020  
ENGLISH ONLY  
Pre-session public release:

**DEVELOPMENT OF MEASURES TO ENSURE QUALITY OF ONBOARD TRAINING  
AS PART OF THE MANDATORY SEAGOING SERVICE REQUIRED BY THE  
STCW CONVENTION**

**Comprehensive study of Onboard Training (OBT) for First CoC**

**Submitted by the International Association of Maritime Universities (IAMU)**

**SUMMARY**

*Executive summary:* This document provides the Sub-Committee with information on the IAMU project "Comprehensive study on quality of OBT", part III: OBT questionnaire feedback data from ship personnel, shipping companies and MET institutions

*Strategic direction, if applicable:* 6

*Output:* 6.16

*Action to be taken:* Paragraph 29

*Related documents:* STW 39/INF.2; MSC 85/23/6; STW 40/13/1, STW 41/7/11, STW 41/7/11; HTW 2/INF.2, HTW 4/INF.4, HTW 5/INF.5, HTW 5/5/1, HTW 6/12/5; MSC 100/10/4, MSC 100/10/4, MSC 101/21/1; C/ES.30/3(a)/1 and STCW.2/Circ.7

**Introduction**

1 The future sustainability of the shipping industry is overwhelmingly dependent on the availability of an adequate pool of capable and effective manpower. Taking this into consideration, it is imperative that Prospective Officers (PO) are trained comprehensively on board in order to acquire the necessary knowledge, understanding, and proficiency to handle critical and emergency shipboard operations with courage and confidence.

2 Onboard Training (OBT) is a vital linking phase between shore-based training and certification of competency. The quality of a PO is predominantly dependent upon the quality of OBT they receive. OBT is an opportunity to strategically align the theoretical knowledge

acquired in a maritime institution with practical day-to-day shipboard operations. When accomplished without any compromise on quality, onboard training has the potential to instill the underpinning skills and knowledge needed to transform trainees into effective manpower.

3 The 1978 STCW Convention, as amended, contains requirements and guidance regarding OBT. However, according to IAMU understanding, there are some sensitive OBT issues that are to be considered and shared in the maritime community in more meaningful ways, namely the Quality Management System (QMS) and quality of OBT. These issues necessitated IAMU to research the OBT process, using feedback information from POs (HTW 4/INF.4) and also from MET institutions, shipping companies, and ship personnel.

4 The OBT project is based on the IAMU Tasmanian Statement<sup>1</sup> (Objective 6: "Provision of quality sea time for cadets"). The project will achieve this goal by identifying factors that impact the quality of OBT and will put forward strategies for OBT improvement. The key principle for the project is to ensure the provision of a skilled maritime workforce.

5 The IAMU OBT project team, having processed the responses, refrained from providing detailed comments to responses in order to give the reader some freedom and flexibility in interpreting the results of the research.

## Background

6 The IAMU preliminary study has revealed that about 60% of OBT requirements as per section A-II/1 of the STCW Code can be carried out using approved simulator training where appropriate, and this case gives the opportunity for cadets to demonstrate their competency in the best way. This also might be the important reason to complement onboard training by simulator-based training and hence a reduction of sea time can be considered.

7 The first part of the project was arranged using a simple survey method to gather feedback data using the post-OBT questionnaire, intentionally developed by the IAMU project team. The information about the OBT was collected from student trainees and addressed their last or most recent onboard training. The second part was devoted to OBT-oriented analysis of international instruments

8 The third part of the project was arranged in similar fashion, with the first part using a simple survey method to gather feedback data using three types of questionnaires, intentionally developed by the IAMU project team. The information about the OBT was collected from ship personnel, shipping companies, and MET institutions and was addressed to the organization of OBT for the First Certificate of Competency (FCoC). The questionnaires are available at the following links:

- .1 Ship personnel:  
<http://iamu.wpengine.com/working-group/wg-on-iamu-obt/1-2/>
- .2 Shipping companies:  
<http://iamu.wpengine.com/working-group/wg-on-iamu-obt/2-2/>
- .3 MET institutions:  
<http://iamu.wpengine.com/working-group/wg-on-iamu-obt/survey-1/>

9 A total of 27 companies, based in Cyprus, Germany, Ghana, Greece, India, Japan, the Netherlands, Philippines, Singapore, Sweden, United Arab Emirates and 44 MET

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<sup>1</sup> [http://iamu-edu.org/?page\\_id=3047](http://iamu-edu.org/?page_id=3047)

institutions from Australia, Bulgaria, Canada, Croatia, Denmark, Egypt, Estonia, Finland, France, Italy, Japan, Myanmar, Norway, Peru, Philippines, Poland, Republic of Korea, Romania, Russian Federation, Turkey, and the United States responded to questionnaires. The IAMU team has received also 415 responses to questionnaires from seafarers during 2019 (figure 1). All the responses were processed as quantitative data. The comments were submitted in the written form and also electronically in online format.

10 The following are excerpts from part B of the STCW Code regarding the certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more<sup>2</sup>:

"Every candidate for certification<sup>3</sup> as officer in charge of a navigational watch should have completed a planned and structured programme of training designed to assist a prospective officer to achieve the standard of competence in accordance with table A-II/1.

The structure of the programme of training should be set out in a training plan which clearly expresses, for all parties involved, the objectives of each stage of training on board and ashore. It is important that the prospective officer, tutors, ships' staff and company personnel are clear about the competences which are to be achieved at the end of the programme and how they are to be achieved through a combination of education, training and practical experience on board and ashore.

The prospective officer should be provided with a training record book to enable a comprehensive record of practical training and experience at sea to be maintained. The training record book should be laid out in such a way that it can provide detailed information about the tasks and duties which should be undertaken and the progress towards their completion. Duly completed, the record book will provide unique evidence that a structured programme of onboard training has been completed which can be taken into account in the process of evaluating competence for the issue of a certificate.

At all times, the prospective officer should be aware of two identifiable individuals who are immediately responsible for the management of the programme of onboard training. The first of these is a qualified seagoing officer, referred to as the 'shipboard training officer', who, under the authority of the master, should organize and supervise the programme of training for the duration of each voyage. The second should be a person nominated by the company, referred to as the 'company training officer', who should have an overall responsibility for the training programme and for coordination with colleges and training institutions."

11 The following STCW regulations: II/1 (Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more); III/1 (Mandatory minimum requirements for certification of officers in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine-room); III/6 (Mandatory minimum requirements for certification of electro-technical officers), and aforesaid provisions initiated the development of questions SPQ1 - SPQ10 for ship personnel; METQ1 - METQ12 for MET institutions and SCQ1 - SCQ10 for shipping companies, the outcomes of which are illustrated in figures 1 to 34 below.

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<sup>2</sup> General provisions of this guidance relate not only deck trainees, but engine trainees also (IAMU unified interpretation)

<sup>3</sup> Guidance regarding the certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more, STCW Code, Part B, Chapter II.

**Organization of OBT by ship personnel: summary of questionnaire responses**

12 The IAMU team has received 415 responses to questionnaires from seafarers during 2019 (see figure 1). Respondents have indicated in 55% of the cases that an approved seagoing service of not less than 12 months is more than enough to meet the requirements of OBT, thus this could be shortened if the PO has undertaken certain competencies ashore prior to OBT (figure 2); and about 82% (figure 3) indicated that there is enough time on board set aside within the normal operational requirements of the ship for completion of OBT for the PO programme, including supervised watchkeeping.

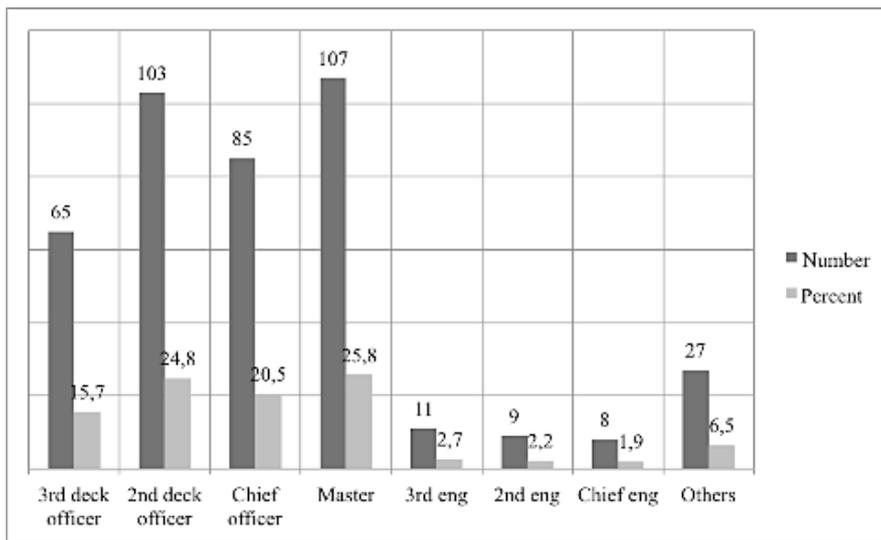


Figure 1

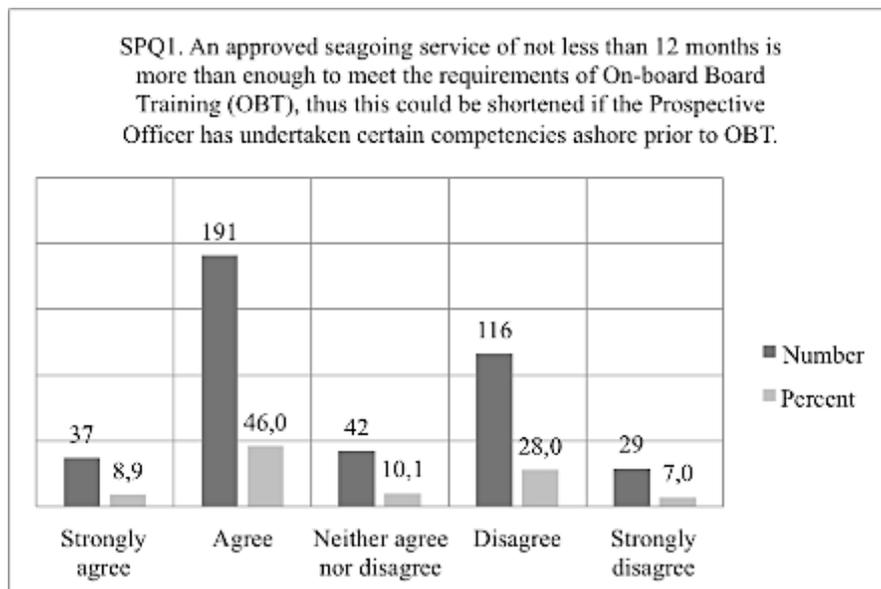


Figure 2

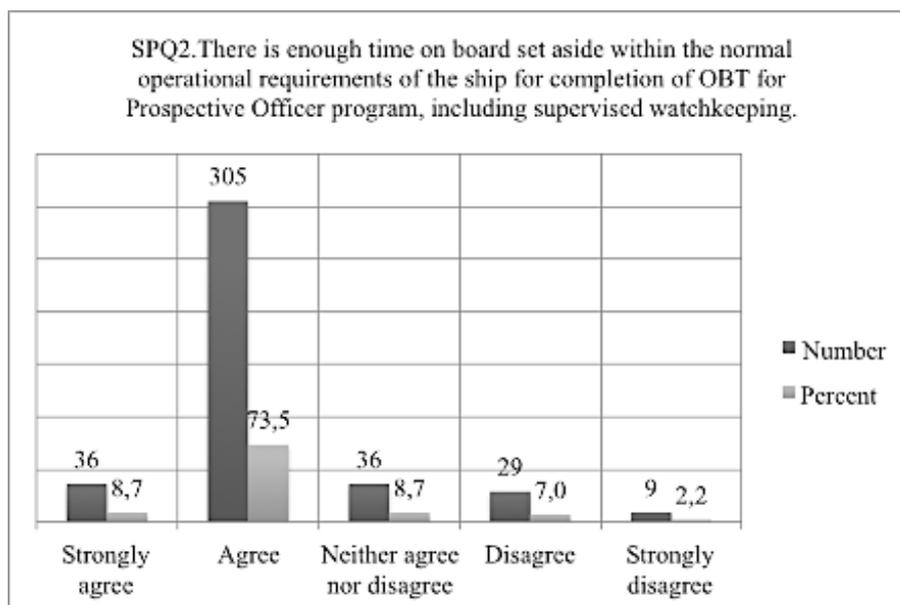


Figure 3

Comments of respondents on question 1 for ship personnel (SPQ1):

"Life on board is different than life ashore. On board, you experience stress but your emotional, mental and professional capabilities are enhanced. Thus, 12 months requirements must not be shortened."

"Experience is still a valuable asset for a person because some problems can be solved only by experience that is why I disagree with shortening of 12 months of OBT."

"An approved seagoing service of not less than 12 months is just enough to meet the requirements of OBT. Certainly, it cannot be shortened. All the competencies stipulated in the ISF TRB can only be complied on board."

"12 months of OBT should be maintained regardless of certain competences reached ashore prior to OBT by prospective officer."

Comments of respondents on question 2 for ship personnel (SPQ2):

"Yes, I agree, in fact, the ship officers are willing to teach their cadets, so that they have the abilities to become an officer."

"Yes, there is enough time for OBT tasks within the normal ship operation frames, but however it depends on type of the ship and its voyage plan."

"For deck trainee there is enough time, but for engine trainee this time is not enough."

13 Respondents have indicated that in 37% of cases the shipboard training officer (STO) was not appointed on board the ship (figure 4); but in 70% confirmed that there is an effective practice on board ship of evaluating the competence of POs (cadets) on board in accordance with onboard training programme (figure 5).

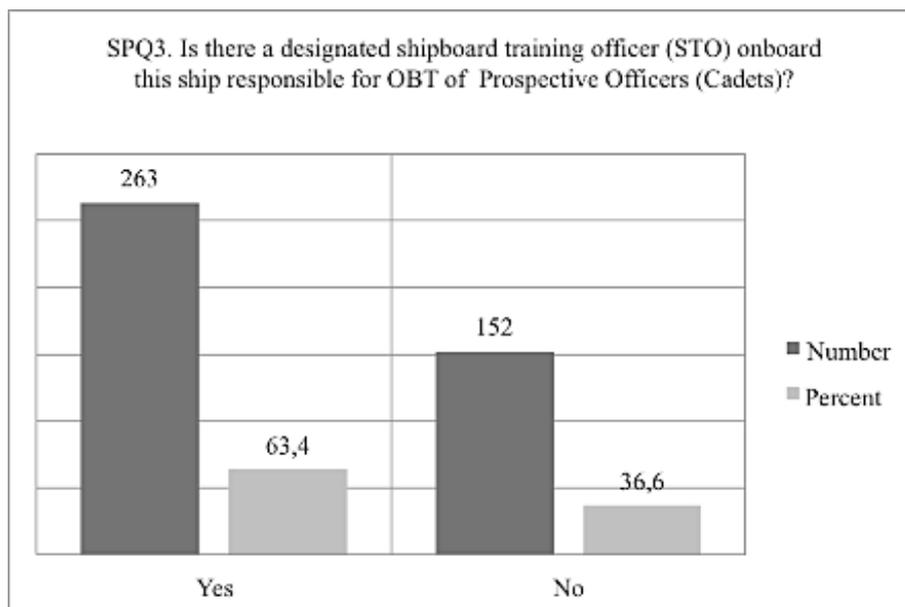


Figure 4

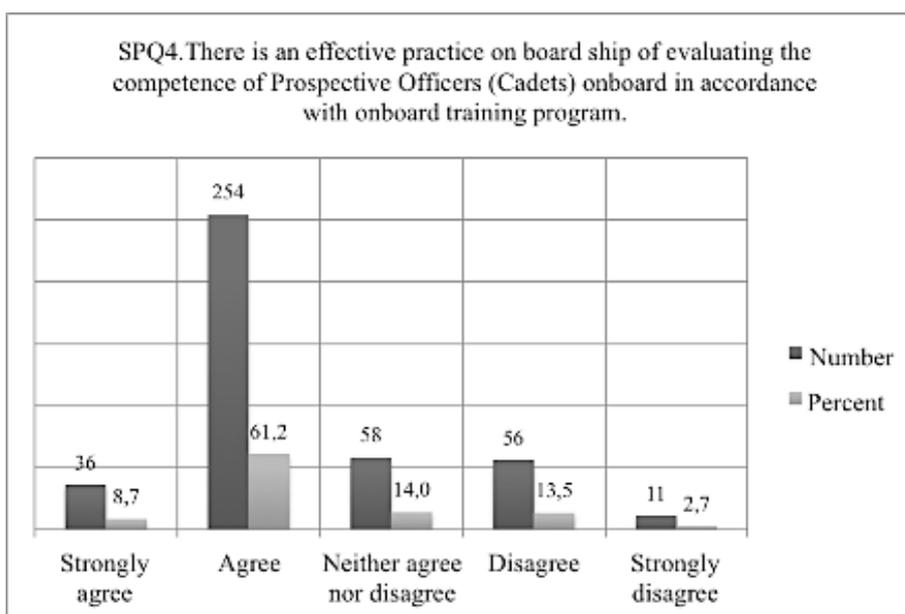


Figure 5

Comments of respondents on question 3 for ship personnel (SPQ3):

"Yes, there is, but the prospective officer should not be depended on STO. He/she should also learn some basics from other crew members."

"It is an advantage, if there is the STO on board."

"If cadets are on board, Chief Officer needs to make two types of job: watchkeeping and also be a trainer for prospective officers."

"Yes, on board the ship the First Engineer is responsible for training of engine cadets and the Chief Mate for the deck cadets."

"As per Company policy, the person assigned as the STO is responsible for OBT of cadets during duty hours. These are Chief Officer and First Engineer."

"As per requirement for OBT, there is always designated STO on board the vessel."

Comments of respondents on question 4 for ship personnel (SPQ4):

"Yes, on board we have the CPR (crew performance report), which is done quarterly, so this is where cadets are being evaluated. At the same time, their project workbooks are also a helpful guide on what should be learnt on board."

"The OBT training record books are mandatory to all cadets to complete and it also the subject of approval by the Master."

"For a company like mine, we have a so-called CPR, wherein POs (cadets) are evaluated/assessed properly in accordance to the competencies required by the STCW regulations and company rules."

14 It is important to note that 56% of respondents stated that there is difficulty for STO to organize the programme of practical training at sea due to lot of professional ship operation duties (figure 6) and about 48% indicated that there is difficulty for STO in providing a supervisory function that the training record book of PO is properly maintained and that all other requirements are fulfilled (figure 7).

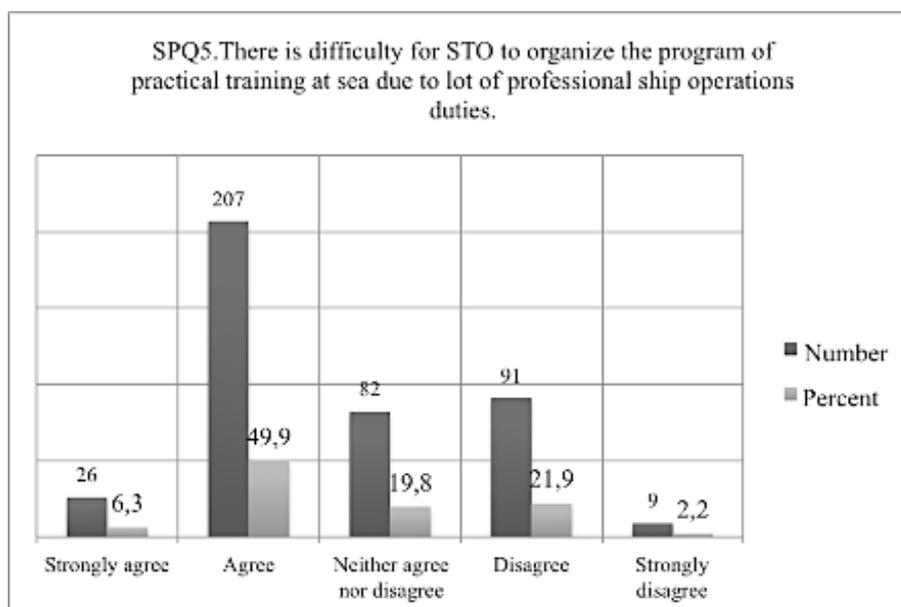


Figure 6

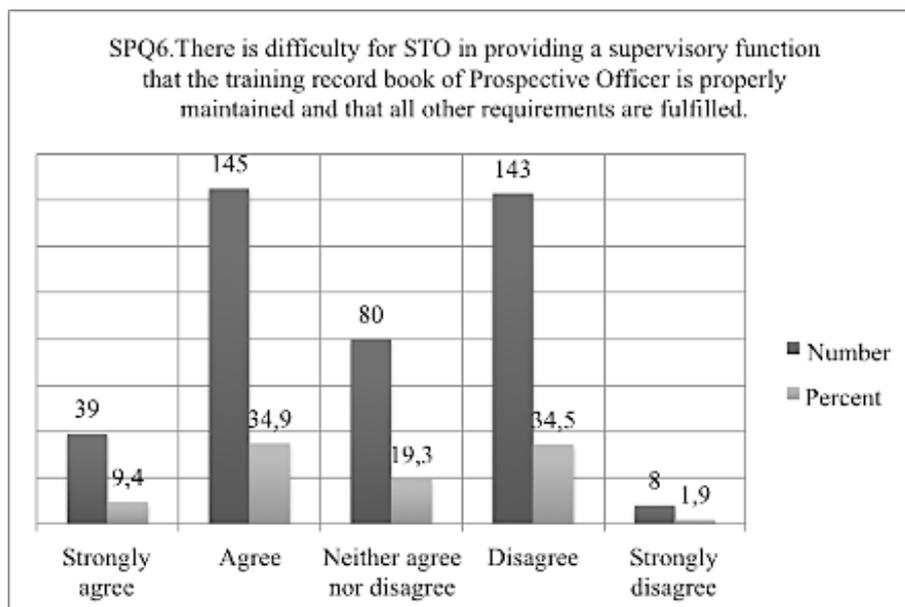


Figure 7

Comments of respondents on question 5 for ship personnel (SPQ5):

"In fact, yes, but in this manner, it is where also cadets learn a lot of professional operation on board."

"It depends on the circumstances."

"It depends on how the company integrates the work of the STO to normal operational assignment of tasks for the personnel on board."

"This depends on the STO. Some STO are really determined in helping the trainees or the cadets. And some of them are only focused with their job."

"STO is usually busy only during port operations; if the ship is underway, he has lot of time to organize the training programme."

Comments of respondents on question 6 for ship personnel (SPQ6):

"Yes, because STO has also a lot of job. However, he is available for cadets, but the cadet should make sure to ask questions at the right time. In fact, the effect of learning depends on the cadet motivation. STO always can find the time to teach the cadet."

"It depends on the STO on how he/she arranges the training of the PO."

15 About 42% of respondents have agreed that there is difficulty in ensuring the appropriate efficiency that the OBT time the PO spends on board is as useful as possible in terms of training and experience (figure 8) and only 29% agreed that Master has difficulty in being the link between STO and CTO (figure 9).

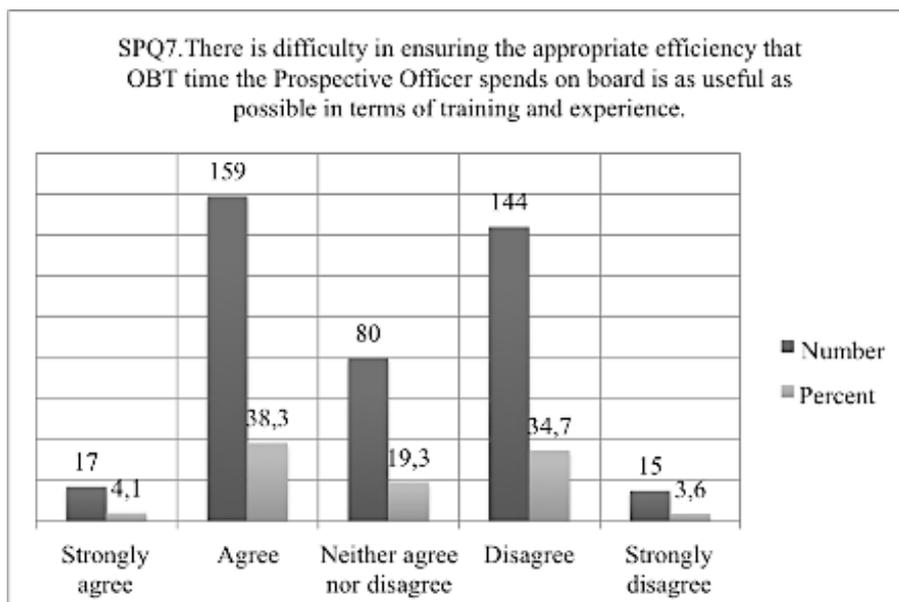


Figure 8

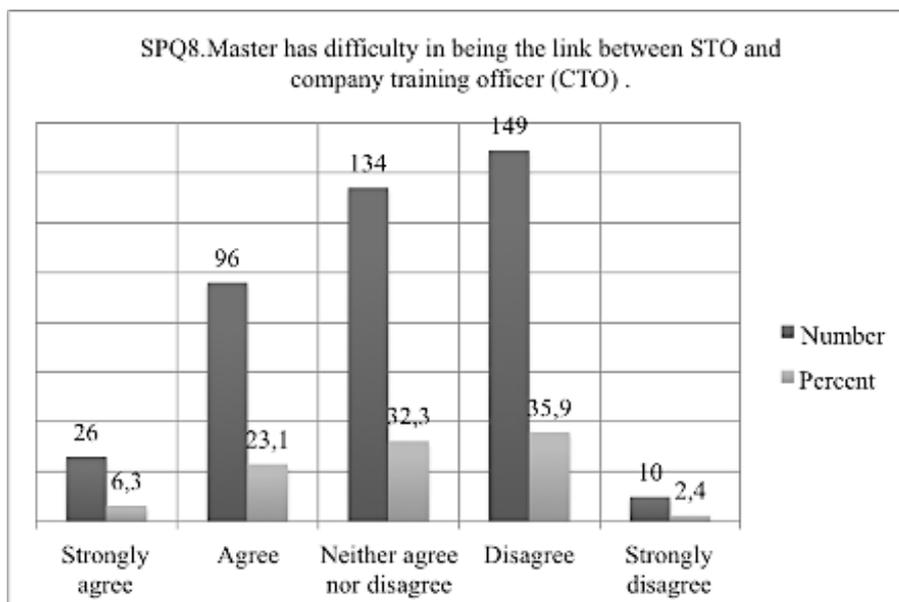


Figure 9

Comments of respondents on question 8 for ship personnel (SPQ8):

"There is no problem with arranging the link between STO and CTO."

"In reality, not all Masters care about it."

16 It is vital to note that 30% agreed that Masters have difficulties to fulfil the role of continuity if the STO is relieved during the voyage (figure 10). 52% of respondents confirmed that Masters have difficulty in ensuring that all concerned are effectively monitoring the realization of OBT programs assigned to POs (figure 11).

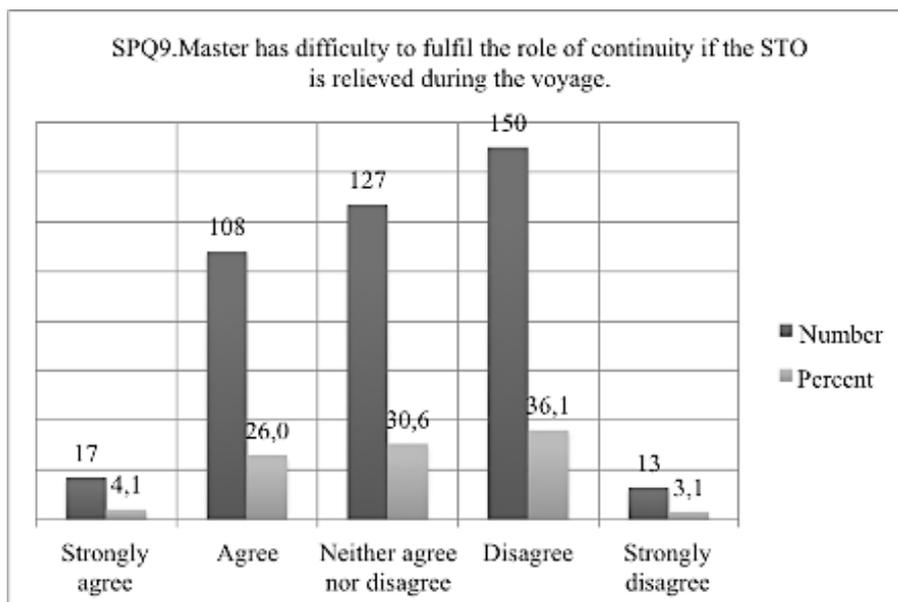


Figure 10

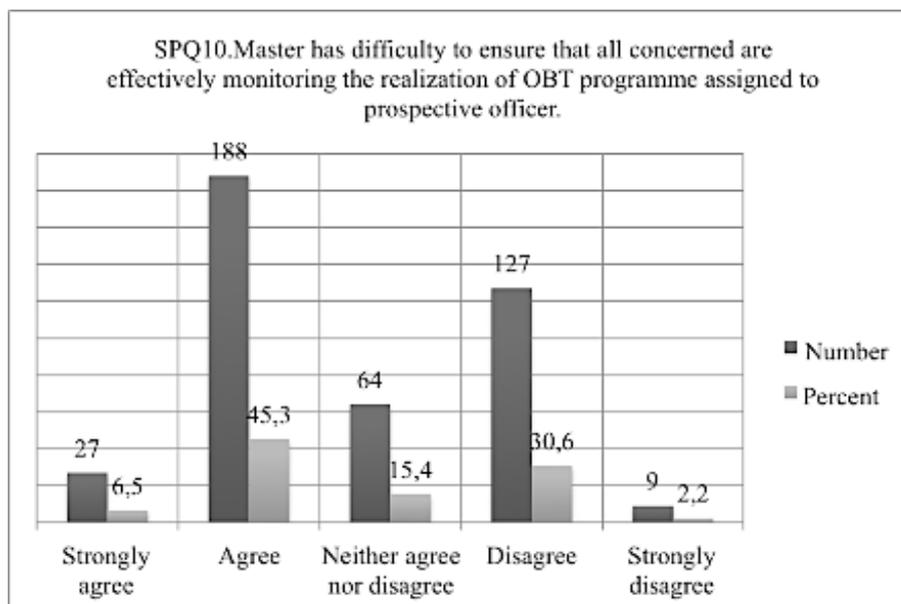


Figure 11

Comments of respondents on question 9 for ship personnel (SPQ9):

"There is no difficulty."

"The prospective officer, whether he belongs to a company training programme or not, he will always bring his approved ISF TRB (training record book). It is used also as a monitoring scheme on how far the candidate already on his OBT programme. I see no difficulty for the Master to fulfil the role of continuity."

Comments of respondents on Question 10 for Ships' Personnel (SPQ10):

"It depends on the ship type and the route. The Master is required to check the progress of the prospective officer. This can be done by checking the ISF TRB every

month and sending Monthly Progress Report to the office. This scheme is common to shipping companies where there is an established cadet's training programme."

Other general comments:

"Safety Management System (SMS) in my company doesn't work; but by my understanding, it has a potential to improve the implementation of training programme for PO."

"STO could, at least, advise a newbie what items are the most difficult and what to be learned onboard more deeply."

"Very often cadets are given stupid, dirty and routine work, which kills all the wishes to continue the work at sea."

### Organization of OBT by shipping companies: summary of questionnaire responses

17 All the companies confirmed that they have an approved training programme ensuring the POs receive systematic practical training and experience in the tasks, duties, and responsibilities of an officer in charge of navigational watch or officer in charge of engineering watch on vessels (figure 12). All respondents allocate and assign qualified personnel both ashore (Company Training Officer, CTO) and on board (Ship Training Officer, STO), to implement quality OBT (figure 13).

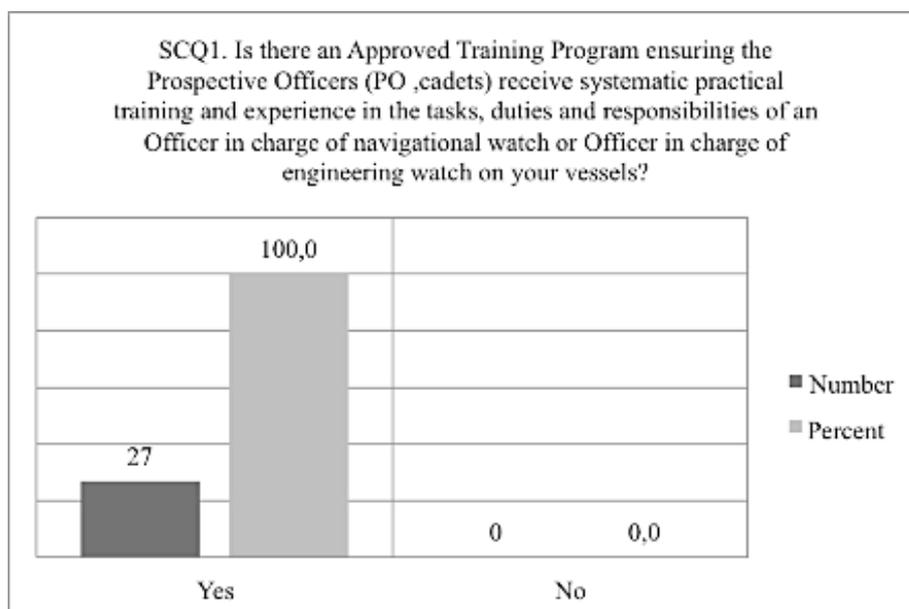


Figure 12

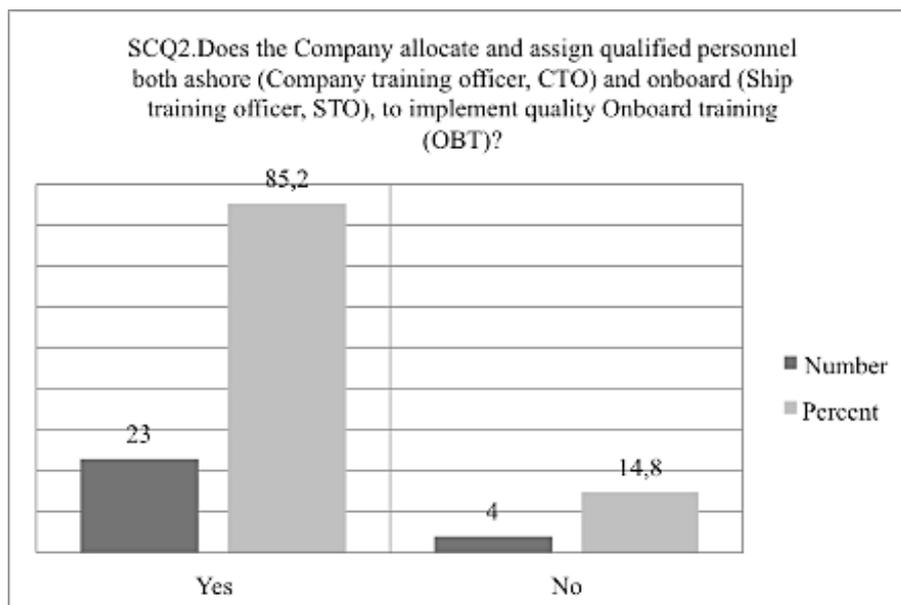


Figure 13

## Comments of respondents on question for shipping companies (SCQ1):

"Cadets and officer trainees carry a digital training record book which is monitored in the office."

"As per our manuals (Company Management System), once a cadet becomes a certificated OOW (deck or engine), he/she has to do a minimum 90-day period of tandem watchkeeping as trainee officer along with another dedicated OOW in order for his/her skills as an independent watchkeeper to be assessed by his superiors and the Master. If he/she meets the requirements, only then would they be put in charge of an independent watch. We have CMS requirements that are generic for each rank and we also have individual requirements tailored to the specific person on an ad hoc basis."

"Company designates onboard training officers."

"Our cadets are passing through the Cadetship Programme wherein a solid training is implemented. Secondly, we have designated Training ships where we are assigning our cadets who will then be trained and monitored by our selected STOs."

## Comments of respondents on question for shipping companies (SCQ2):

"There is no specific person assigned on board but Master has to monitor Digital Training Record Book (DTRB) and can delegate this to other officer on board. DTRB must be signed off by senior officer. DTRB's are sent on monthly basis to office where progress is monitored by training department."

"Senior officers are supposed to arrange training as per CMS for seafarers subordinate to them. Training on board is overseen by HSSE Manager and training manager from head office. Training ashore is overseen by crew manager and human resources coordinator."

"We do have CTO ashore but on board all officers and engineers are involved in training of cadets."

"Company designates onboard training officers and CTO."

"The CTO and the STO communicates on a regular basis to ensure that the training required for the cadets to undergo are properly followed and implemented."

"We have a dedicated person in charge of Cadetship Programme from the time of selection prior schooling, during schooling, shipboard training and back to school until they graduated and take board exams. In addition, Administration has also a dedicated STO who is closely monitoring all cadets."

"We dedicate trading and training vessels with STO for 3 months with each group of max 8 on each vessel."

18 Respondents from 14 companies confirmed that there is a formal undertaking or contract duly accomplished between the company, the training institution and the PO (cadet), stipulating obligations of parties concerned prior to OBT (figure 14) and 25 of them agreed that POs (cadets) are closely supervised, guided and their progress monitored in Training Record Book (TRB) related tasks by the STOs or qualified officers aboard their ships (figure 15).

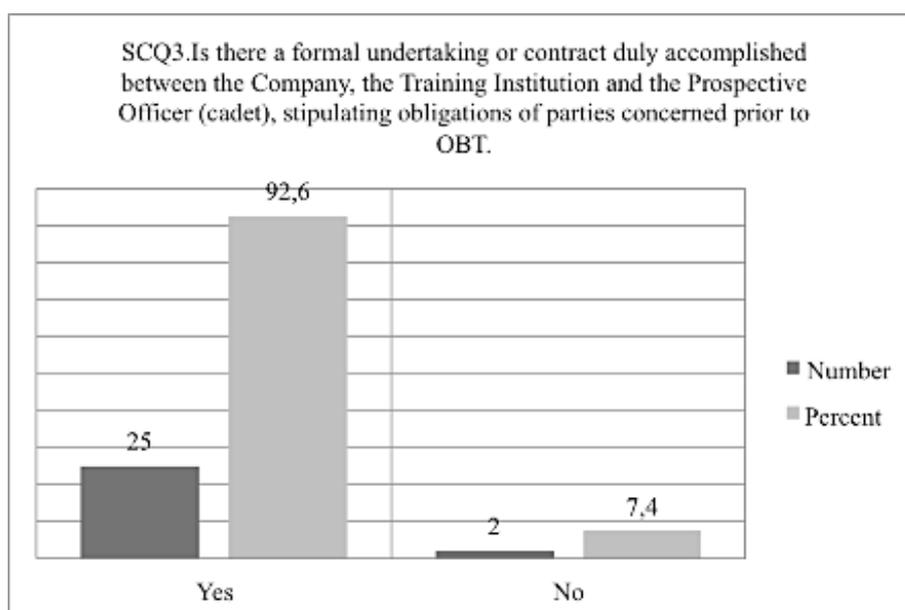


Figure 14

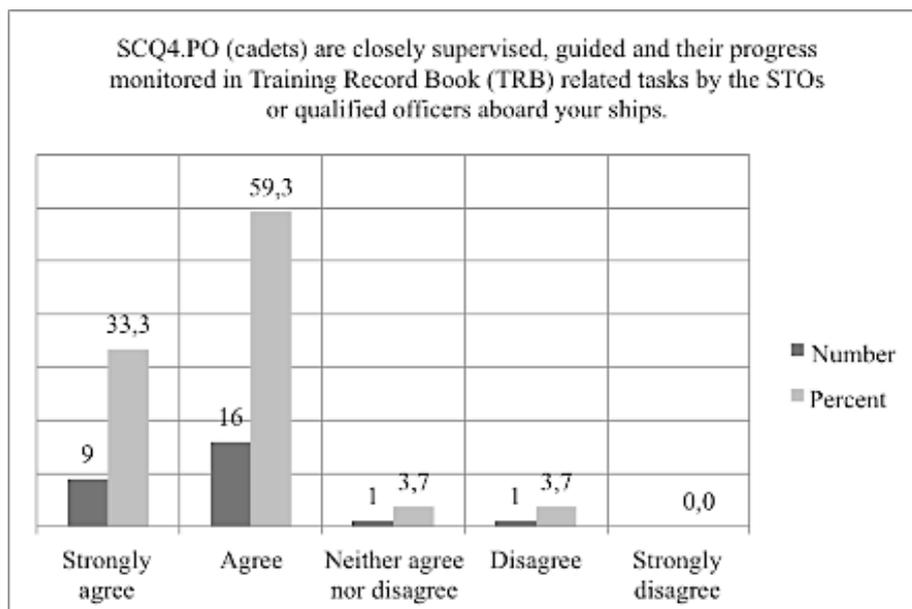


Figure 15

Comments of respondents on question for shipping companies (SCQ3):

"We have POTP but not all cadets are part of this programme."

"We have specific contracts with certain Universities with whom we operate cadetship programmes."

"Placement of cadets is in agreement with the school."

"Prior the commencement of Cadet Training Program, each cadet and the company sign a training agreement explaining therein the obligations of both parties."

"We have MoU with the MET Institutions."

Comments of respondents on question for shipping companies (SCQ4):

"It depends on Master and Chief Engineer if they will closely supervise POs (cadets)."

"Failure to complete a TRB to the company specified standard might delay promotion of the cadet."

"Every month, cadets are required on board to pass their Monthly Progress Report (MPR) in accordance with their TRB."

"Cadets are trainees; hence, they need guidelines, supervision and proper encouragement in order for them to succeed. TRB are closely and strictly monitored on board and onshore to ensure that they comply and learn the proper way. STO and company personnel in charge of Cadetship Programme do this job."

19 As it seen from the data received, 23 respondents agreed that their companies' quality standard systems and training systems ensure the monitoring of all training and assessment of competence on board, especially in respect of the progress in Training Record Book (TRB)-related tasks, duties or practical OBT for the cadets (figure 16) and 15 representatives of companies stated that there are enough human and time resources allocated for supervised

watchkeeping of POs in order to ensure completion or achievement of OBТ programmes within normal operational requirements of ships (figure 17).

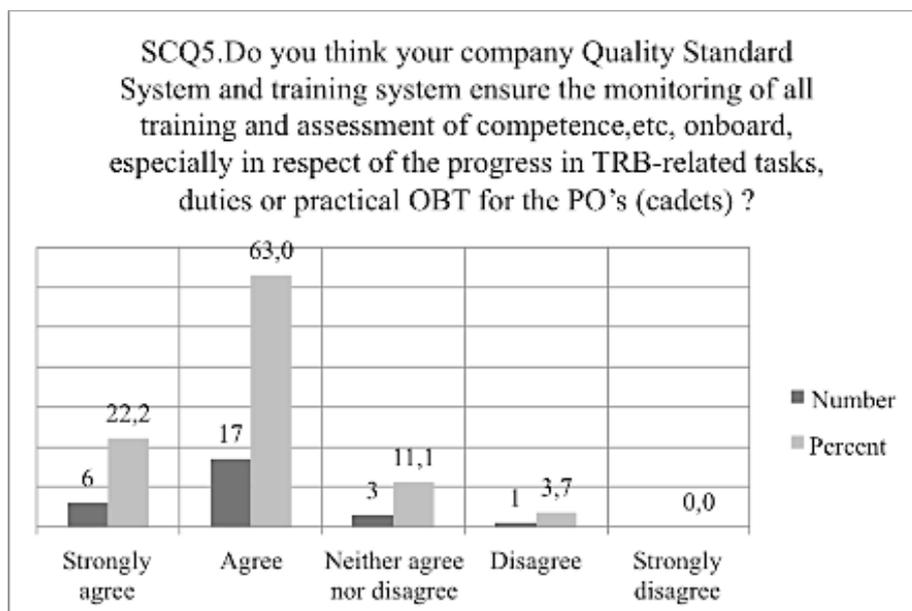


Figure 16

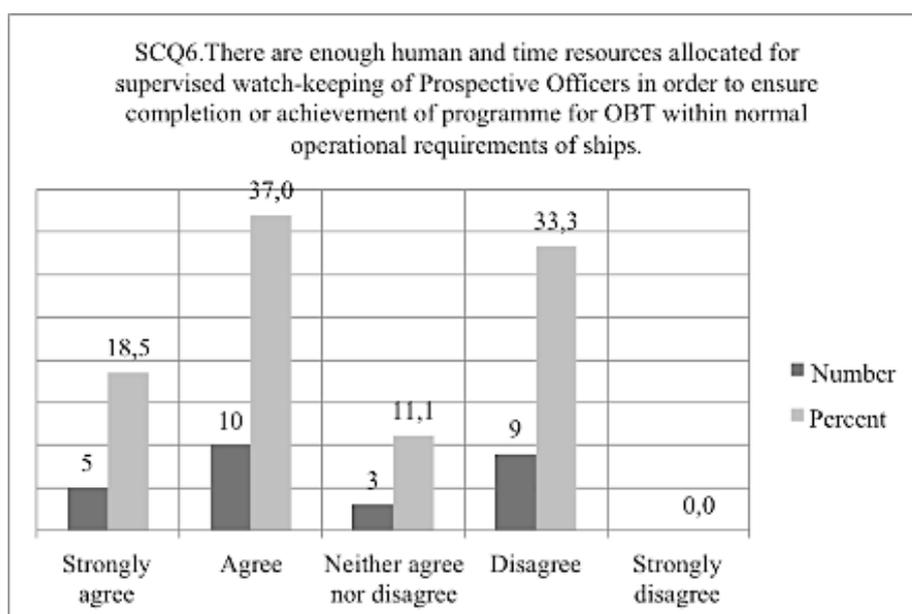


Figure 17

Comments of respondents on question for shipping companies (SCQ5):

"The results vary. Much depends on the commitment and involvement of mentors/coaches."

"As a Company we don't micromanage the cadet training books of the cadets themselves. Only Master and Chief Engineer would oversee any training required practically with regard to sea service as a prerequisite towards CoC issuance. As a Company we ensure any training is as per our CMS."

"A specific department, namely the Prospective Officers Training Programme Department (POTP), is designated to monitor and ensure that all trainings and assessments required for the cadets to undergo are complied with and accomplished in a proper way."

"In addition to ensuring that cadets complete their TRB on time, they are required to send monthly improvement/progress reports."

"We have our own monthly Competence Management System, which ensure the procedure to send Cadets OBT results to Cadet Coordinator and receive the assessment results as a feedback."

Comments of respondents on question for shipping companies (SCQ6):

"Sometimes we hear the excuse. But training requires good planning. There are time periods (usually during port stays) that all time and resources are needed for operational priorities. However once at sea more time can be allocated for these purposes. A cadet can be shadowing the work of an officer even during busy times."

"A STO designated by the Master ensures that the watchkeeping training of each cadet is being supervised."

20 According to the data submitted, ten out of 27 companies agreed that 12 months of required seagoing service can be reduced through specified competency trainings ashore (figure 18) and 13 companies confirmed that using modern approaches, the POs (cadets) can be trained more efficiently in certain competencies while ashore and not necessarily while on board (figure 19).

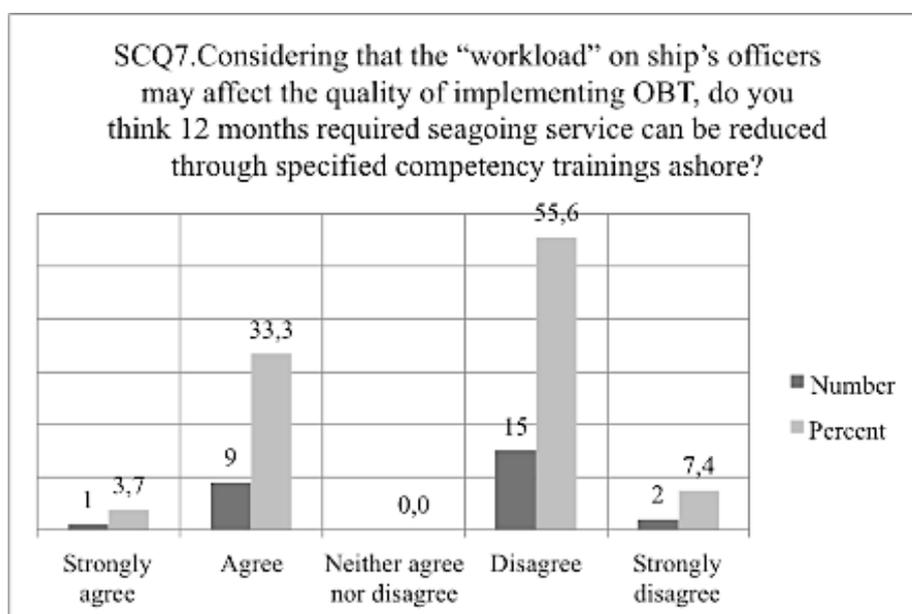


Figure 18

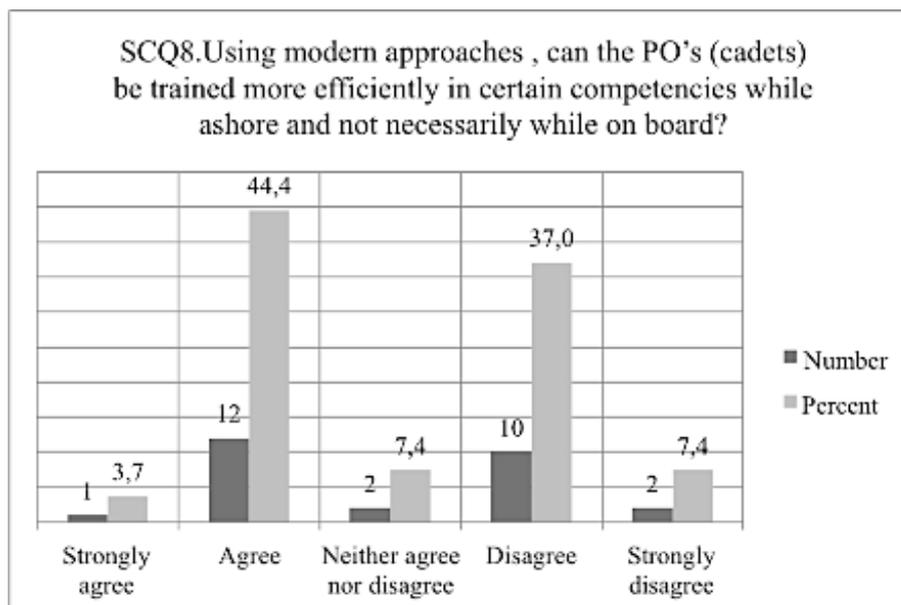


Figure 19

Comments of respondents on question for shipping companies (SCQ7):

"12 months, I would say is the minimum. We are still adding trainings to them whenever they are back from sea service."

"In general the best learning is on the job and on board we have better control over the quality of learning."

"The quality is more important than the quantity, but we personally feel that there would be no real value in reducing the practical service period. The issue mainly here is that MLC 2006 requirement for personnel not to stay more than 12 months on board as well as Administration's interpretation that a person should not stay more than 11 months is restrictive. The more a person stays on board, the more he learns."

"To further reduce the 12 months of sea time of cadets would be a disaster. Sea time required for company vessels is 18 months."

Comments of respondents on question for shipping companies (SCQ8):

"There are certainly certain situations that can be taught more efficiently in a simulation environment, but I am not sure if this would lead to a substantial reduction in training on board."

"Simulators cannot replace the culture and actual experience on board."

"For as long as the competencies to be achieved by the POs can be done, executed and experienced ashore, and with all the available aids to support the trainings of the POs, then it can be possible."

"There is a very big difference between training ashore and actual training/experience on board. Simulators cannot replace onboard training."

21 Only 20 respondents agreed that certain competencies trained ashore would ensure better preparedness for OBT for the PO's (cadets), thus saving OBT time and lessening the

burden on companies and ship crews (figure 21) and 18 companies confirmed they have a system in place, that evaluates the OBT results of the POs upon completion of their OBT period (figure 21).

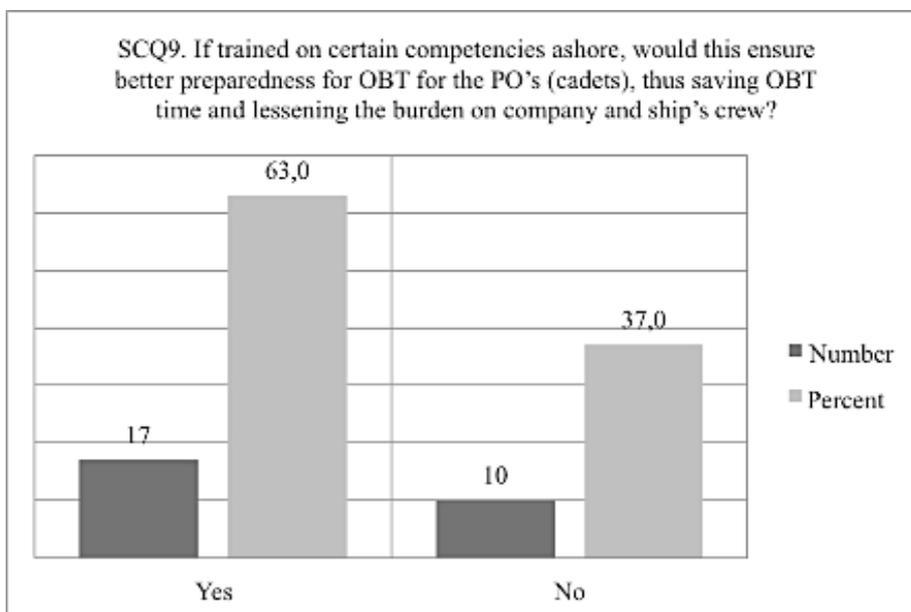


Figure 20

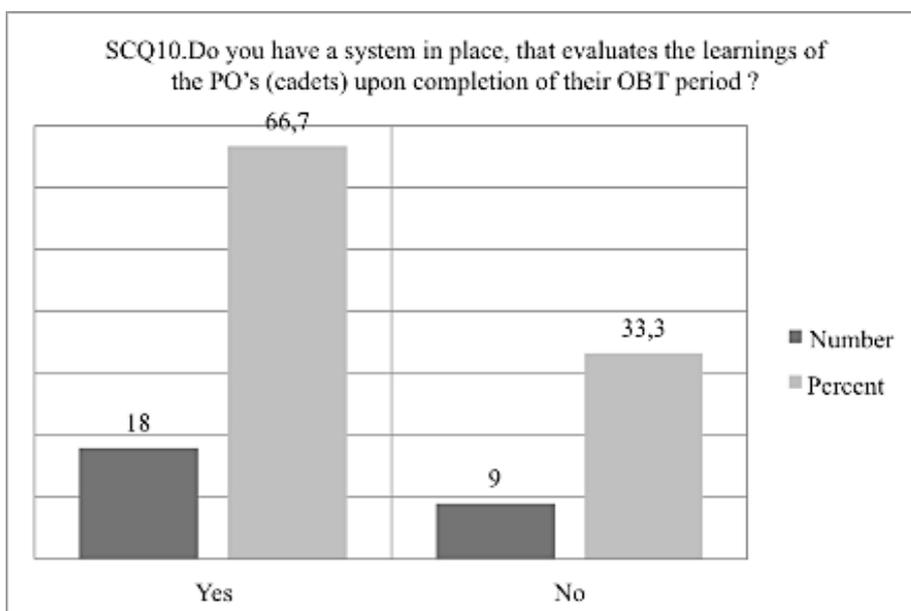


Figure 21

Comments of respondents on question for shipping companies (SCQ9):

"Yes and no, but minimum 12 months still is required for OBT."

"All cadets regardless of how much training he/she had ashore, he/she starts from zero, when he/she goes on board. Advantage is that he/she can learn faster by applying all the knowledge and skills he obtained ashore."

### Comments of respondents on question for shipping companies (SCQ10):

"In our company the Competency Evaluation System (CES) is in place. Cadets will redo the CES test to see if they made any progress compared to the customized CES cadet test taken prior boarding."

"It is a trade secret."

"The POTP department is entrusted and tasked by the company for the cadets to undergo debriefing process after they disembark from their vessels. During debriefing, the training requirements of the cadets are assessed and checked whether the results are in compliance with the requirements or not. If the foresaid training requirements are being complied by the PO, then he/she is allowed for undergoing the next block of the training programme."

"All cadets, after OBT time is completed, must send a report to the company office, where their TRBs will be checked and they will be asked what they have learned on board. This is in addition to assessment procedure being conducted by administrations and schools prior to enrolment for their last year of schooling."

### Organization of OBT by MET institutions: summary of questionnaire responses

22 MET institutions from Australia, Bulgaria, Canada, Croatia, Denmark, Egypt, Estonia, Finland, France, Italy, Japan, Myanmar, Norway, Peru, Philippines, Poland, Republic of Korea, Romania, Russian Federation, Turkey, and the United States responded to questionnaires. The total number of responders from MET Institutions (44) by country is submitted on figure 22.

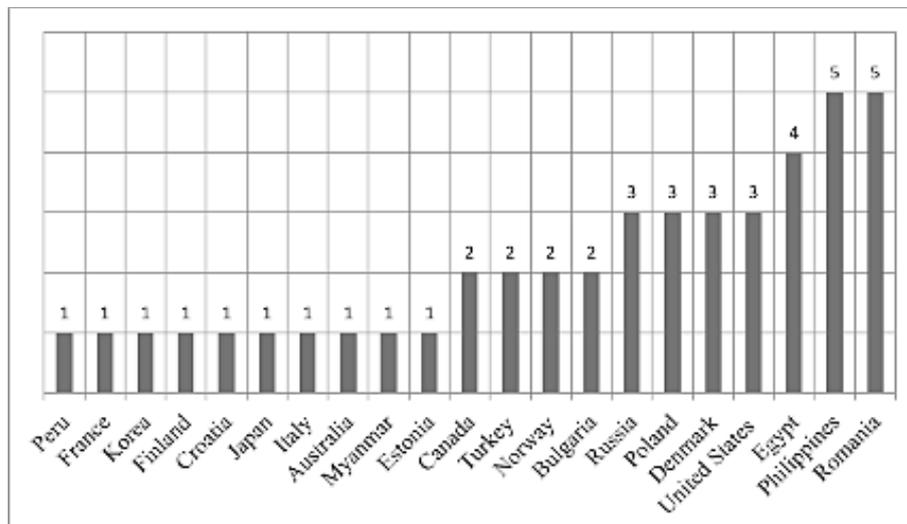


Figure 22

23 About 95% of MET institutions agreed that they should have an approved training plan which includes a structured OBT training programme that prospective officers (cadets) from the institution have to follow once on board (figure 23). But only 75% of them have a formal undertaking or contract duly accomplished between the company, training institution and the PO (cadet), stipulating obligations of parties concerned prior to OBT (figure 24).

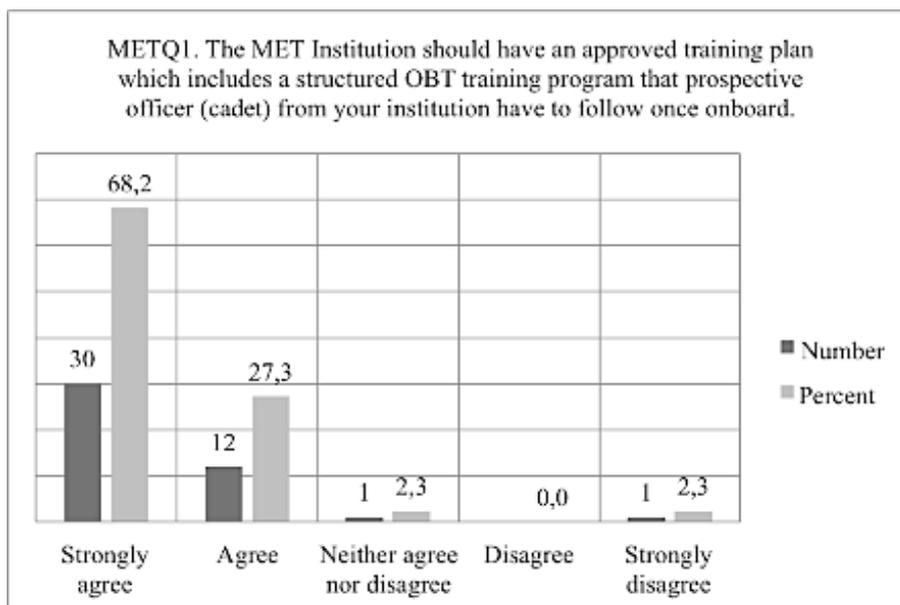


Figure 23

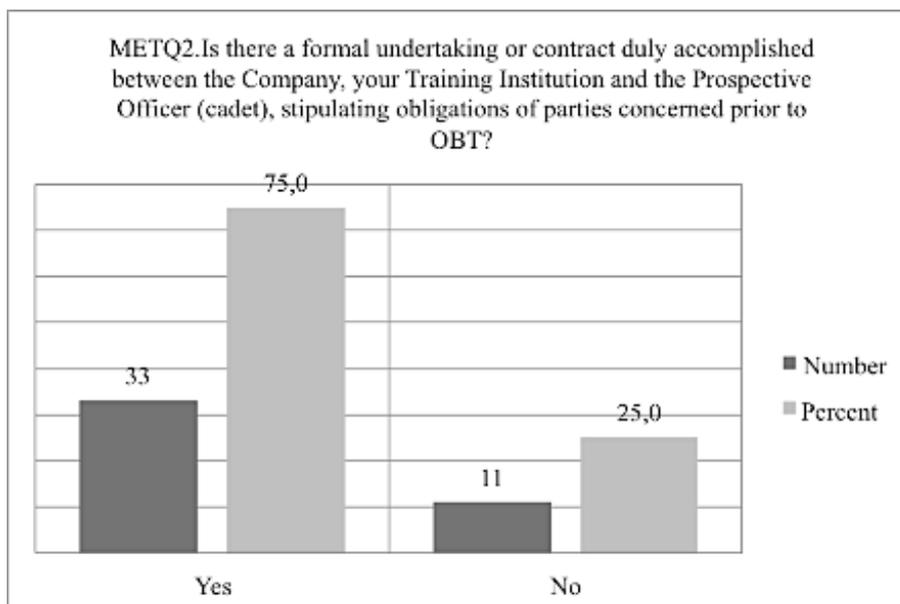


Figure 24

Comments of respondents on question 1 for MET institution (METQ1):

"Seagoing service programme containing in onboard TRB for students is enough to cover all task of educational process."

"Structured training programmes for both engine and deck POs is to be in place. A training record book is provided to cadets before they join the ship for OBT. We already have it since decades."

"Seafaring is more practical occupation, than a theoretical one. So, every institution must have an OBT programme prepared according to STCW requirements and maritime industry's demands."

"It's very important that cadet understands how the OBT is important for his or her future as an officer on board. Cadets need a plan with objectives and detailed activities to reach these objectives, as well as debriefing time to analyse the results (with OOW) and individual reflection."

"Apart from IMO Training Book every student of our maritime university received our own instruction for exercise and work that should be done during the onboard training. After training cadets deliver written report to university on OBT results."

"Our experience is that a structured OBT as part of the training path is crucial to ensure cadets a complete and consistent training, and to make them easily suitable for recruitment by shipping companies."

"In our country the OBT is unfortunately not a part of the maritime education."

#### Comments of respondents on question for MET institution (METQ2):

"No, all requirements for onboard training follow the TRB, no others requirements."

"We have a general tripartite agreement, but not for OBT in specific."

"It is approximately 50% of cadets are sponsored and the other half has OBT in positions of ship personnel (ratings). The contract with the sponsor does not have detailed information about the obligation and the cadet is not a party to it. The contract only mentions the end goal which is to get BSc or CoC according to STCW."

"For certain courses there is a shipboard structured training programme (SSTP) where such undertakings are in place. Our institution does not have such courses."

"We organize carrier week in each academic year for establishing good network between the institute, companies and students. By this way we arrange mandatory STCW training programme for each student in collaboration with the shipping companies. We also follow up our students, while they are on board and use a TRB feedback mechanism."

"There are agreements between both parts in most of cases."

"In our country the OBT is unfortunately not a part of the maritime education."

24 All the respondents agreed that POs (cadets) should be given adequate guidance in accomplishing the TRB such as recording the progress of his practical training and experiences in the tasks; duties and responsibilities of an officer in charge of a navigational or an engineering watch, prior to start the OBT (figure 25). In turn, only 82% confirmed that practice of evaluating the competence of POs (cadets) on board is effectively conducted (figure 26).

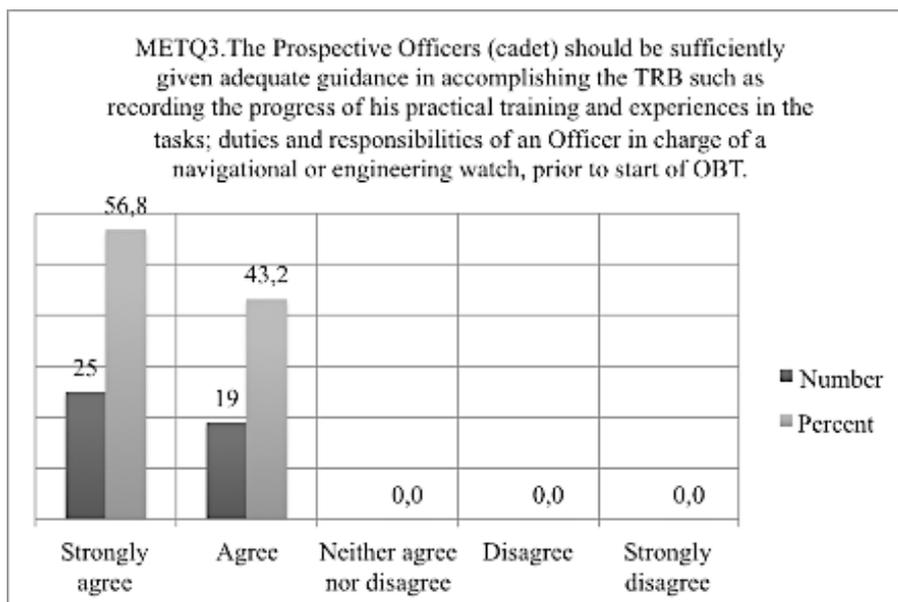


Figure 25

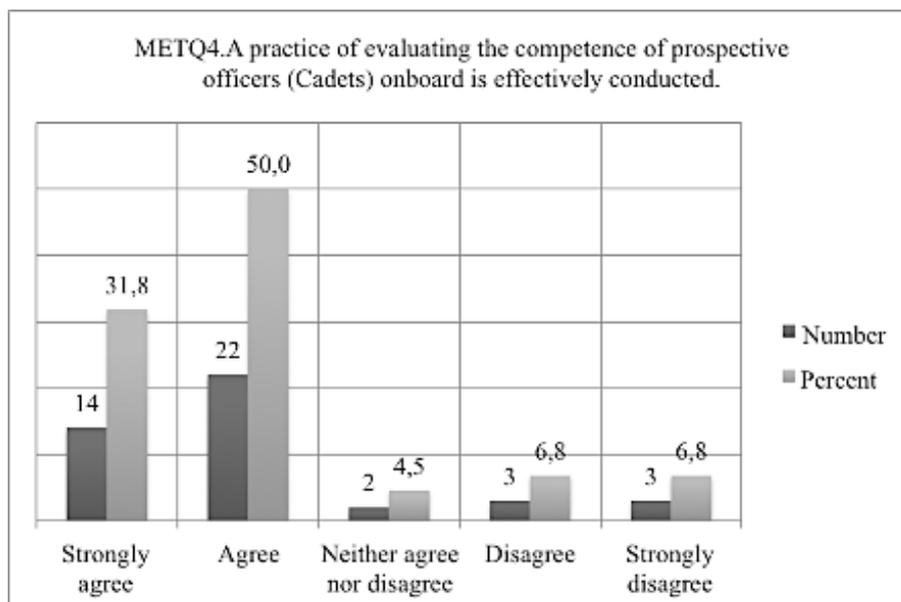


Figure 26

Comments of respondents on question for MET institution (METQ3):

"The TRB is a tracking mechanism that may be in various forms. If all assessments are required to be completed and are embedded in the programme, there is no need to track the individual dates of completion since it is part of a programme."

"It is mandatory for our cadets to record in detail their experience during the OBT time. What they record is checked by STO, and checked again once back by the course coordinator."

Comments of respondents on question for MET institution (METQ4):

"No, because the officers on board that are in charge of monitoring cadets are not trained in assessing competences."

"It is not unified and dependent on the trainer/instructor experience."

"Evaluation and feedback are important."

"We, as MET institution, evaluate the cadets' competencies on their return."

"It depends upon where the cadet has their sea experience and who their supervisors are."

"Once cadets get back to attend lectures, the effectiveness of their onboard experience by the training point of view is assessed by the lecturers of the most important technical subjects of the course through the Web-Cadet system."

"Our university has no information on what's going on board."

25 It is important to note that 74% of respondents agreed that POs (cadets) should undertake and gain proficiency in certain competencies before OBT, thereby making him/her better prepared and make possible a shorter OBT period (figure 27) and all of them confirmed that the PO (cadet) should be fully aware to diligently partake in the training programme; TRB tasks and his/her responsibility to make the most of training opportunities, like bridge or engine watchkeeping, both within and outside working (duty) hours (figure 28).

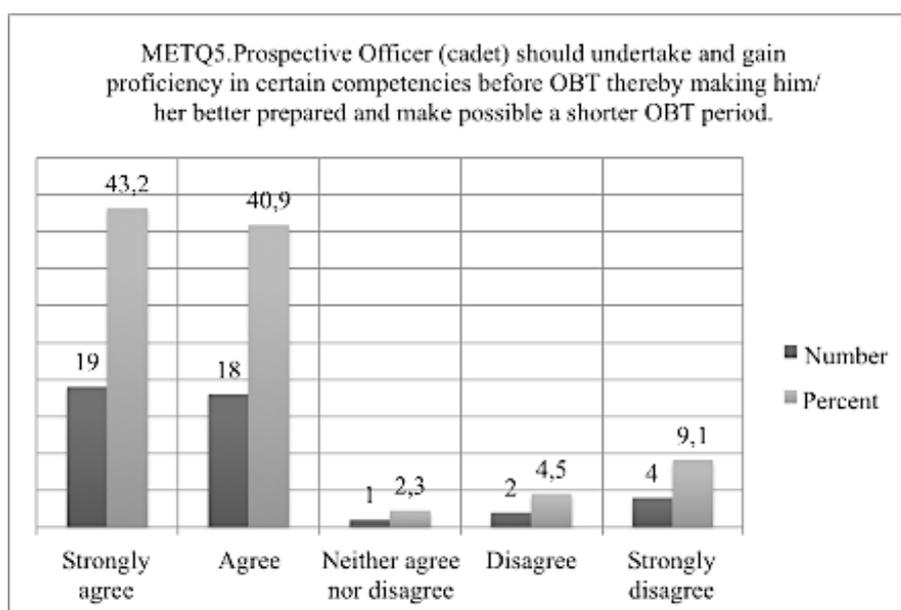


Figure 27

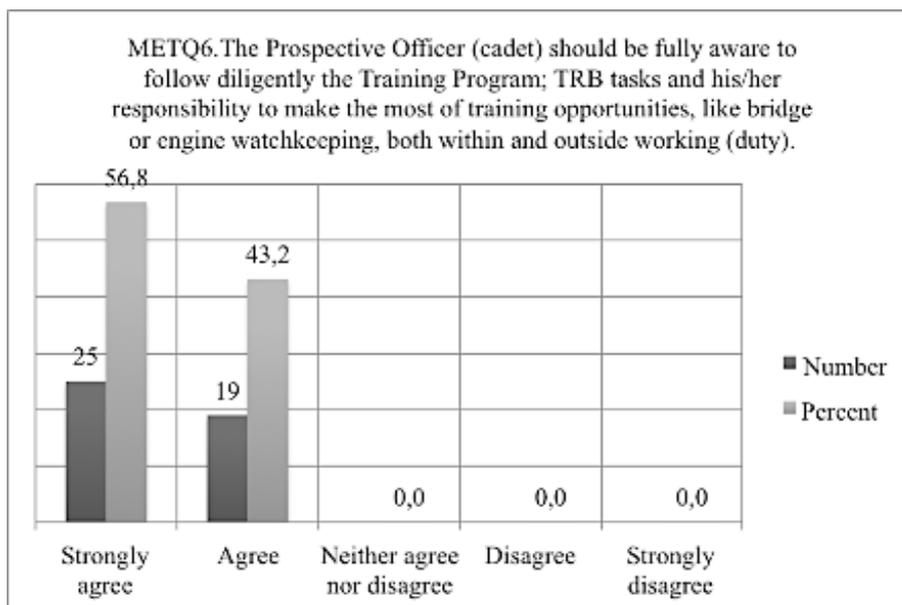


Figure 28

Comments of respondents on question for MET institution (METQ5):

"Seagoing service for all cadets is very good field to gain skills and practical knowledge, but without reducing the sea service period to achieve better results."

"Our institution does not have a training vessel. Practical competencies are gained through STCW safety training, approved nautical and engine simulators, and various labs (machine shop, welding, engine labs, thermodynamics, etc.)"

"Training in survival and emergencies are taken before going to sea. Other practical seamanship trainings are also taken before going to sea."

"It is crucial, and in this sense we act, that he/she receives at least a consistent familiarization course to work onboard. Familiarization is part of the theoretical training path."

Comments of respondents on question for MET institution (METQ6):

"The company should also consider that cadets working hours to be limited and a portion of the 8-hour work per day be dedicated for training. However, if so required, may suspend the study hour due to urgency of personnel required to attend the work at hand."

"This requirement/recommendation thoroughly expressed to cadets throughout the entirety of the programme."

"Training programmes arranged according to STCW, so cadets and shipping companies should follow the requirements of training programme provided by the university."

"The academy must advise cadet carefully to the tasks."

"Cadets must be aware that onboard service is not just 'a work' and earning of some money, but a crucial part of their training. A MET institution must raise this kind of

awareness in them. It is not possible to require the students to work beyond of their working hours."

26 It is important to keep in mind that 96% of respondents agreed that the POs (cadets) should be fully aware of his/her responsibility to keep the TRB up to date, and initiated by a qualified officer upon achieving a particular proficiency and to ensure that it is available at all times for scrutiny (figure 29). 93% of respondents confirmed that the PO (cadet) should appropriately undergo an induction session before the OBT programme (and upon joining another ship), detailing information, guidance, expectations, and tasks to be undertaken, with particular regard to safe working practices, including the protection of the marine environment among many others (figure 30).

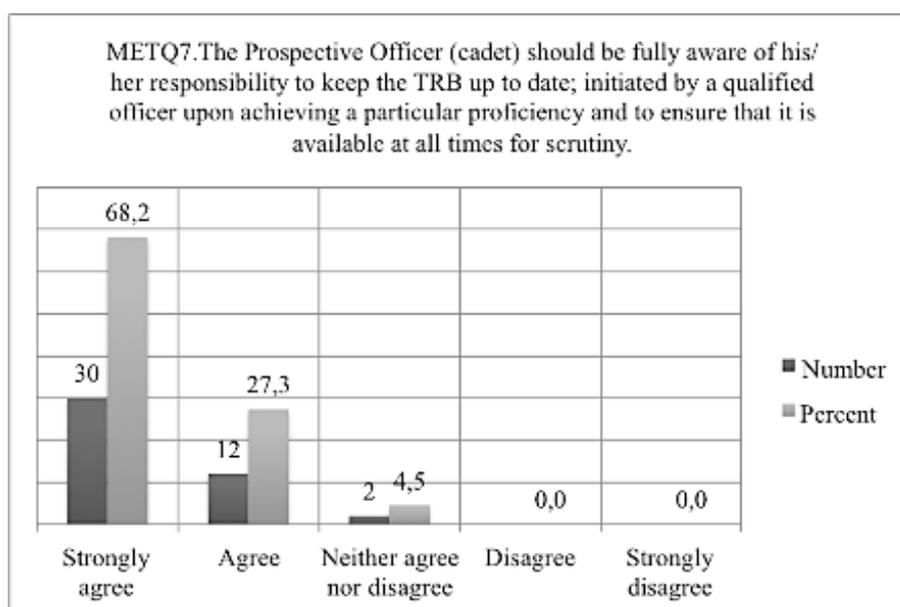


Figure 29

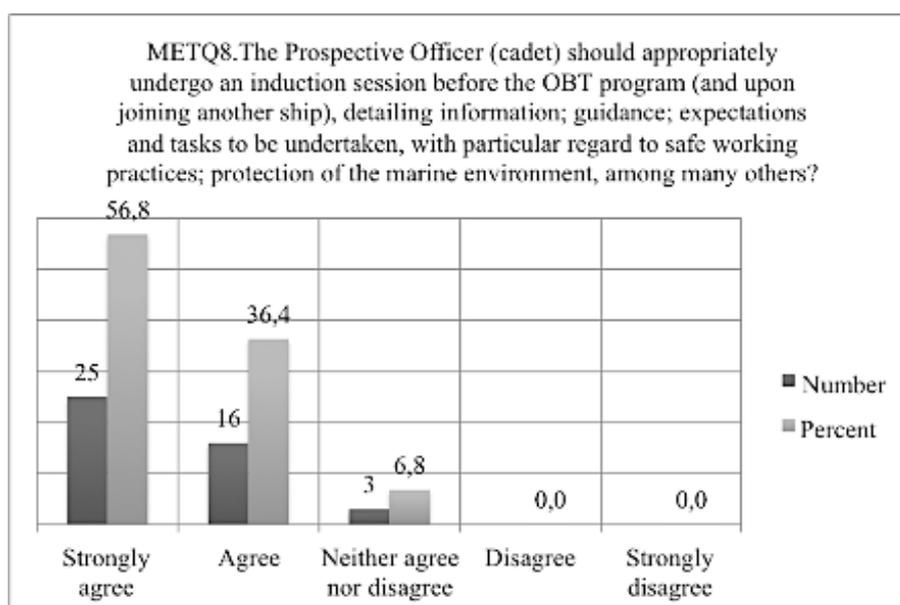


Figure 30

## Comments of respondents on question for MET institution (METQ7):

"Agree, but with giving the cadet period of allowance, say two weeks, in case the qualified officer delay to sign the papers for some tasks."

"This requirement/recommendation thoroughly expressed to cadets throughout the entirety of the programme, especially before joining or rejoining a vessel."

"Yes. The cadets also need to be aware of the type of checks: periodic checklists and on the spot."

"Cadet's responsibility is to initiate communication with officers to review and sign off on their OBT tasks."

"Once again, if it is embedded in a programme the instructor should do so to avoid falsification of documents. Once the documents are submitted directly to the governing body, the credentials should suffice as proof of competency."

"Yes, he/she should. And the only way to ensure this is to give them an evaluation also on the basis of the way they keep TRB updated."

"This is dependent on the interest and attitude of the officers of the ship. If they are not interested, nor have the time and aptitude to train, the cadet will have to work on his own."

## Comments of respondents on question for MET institution (METQ8):

"Induction is usually carried over by shipping companies. Doing this in MET institution is difficult, as not all cadets are joining ships at same month. All covered in theoretical study before joining a ship."

"Yes, the standards and requirements of the company/ship might be different and the cadets need familiarization."

"In practice of our university there is a number of lessons subject of preparing for better familiarization with different types of ships."

"Pre-sea briefing is given to all cadets before going to sea."

"Often this time is not allotted for cadets joining a ship. There should be a part of hiring process prior joining a ship to ensure that cadets know all mandatory requirements prior the stepping aboard the ship."

"Yes, he/she should, but it mustn't be a MET institution task and must be done in cooperation with the shipping company involved."

27 Only 64% of MET institutions confirmed that they have a system in place for the monitoring of the progress of the OBT of POs (cadets) while on board (figure 31) and 95% agreed that upon completion of OBT by POs (cadets), MET institutions should have a comprehensive system to validate, verify and evaluate the learnings during the OBT, leading to evaluation of required competencies (figure 32).

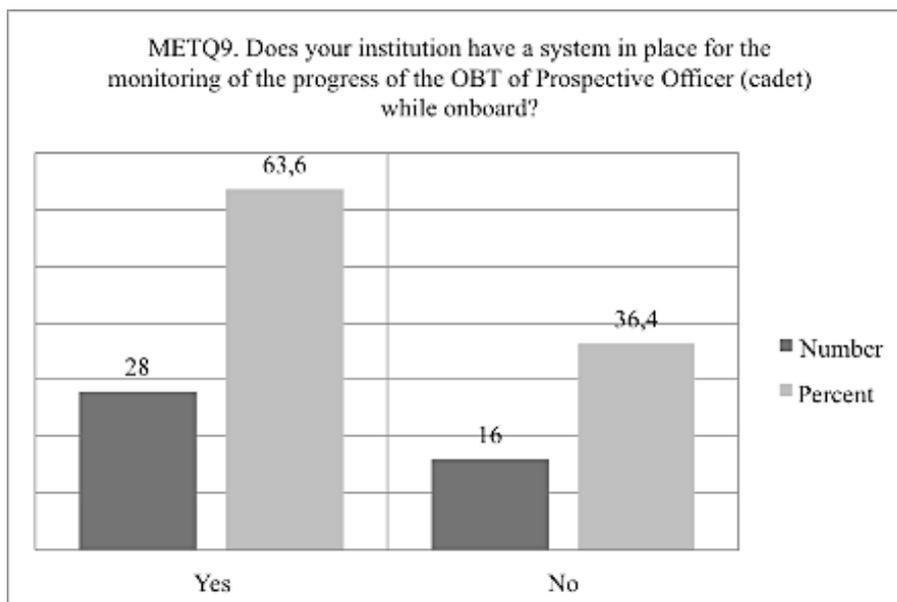


Figure 31

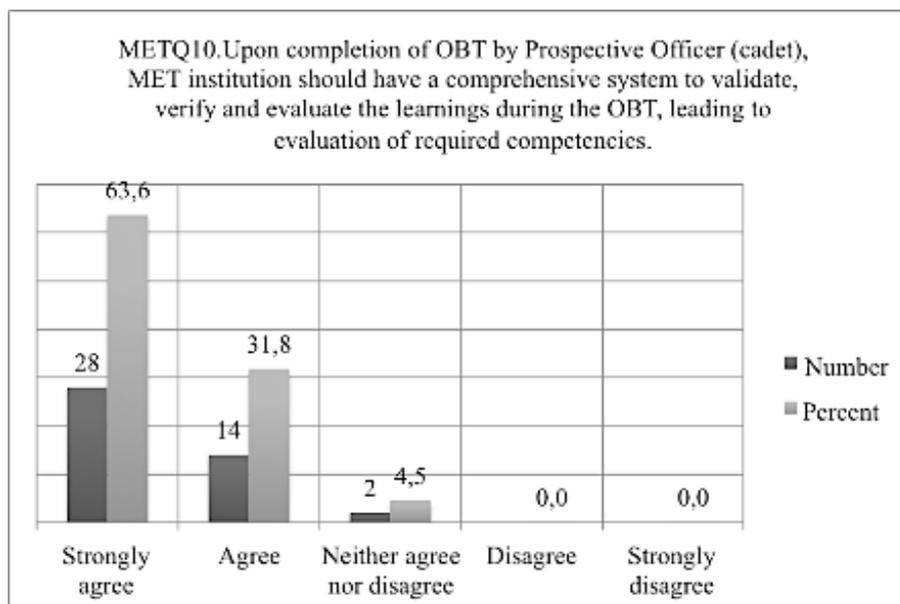


Figure 32

Comments of respondents on question for MET institution (METQ9):

"We monitor signing on/off of cadets only. We request Performance Report and record results under 'promotion', 'joining in same position' or 'not rejoin'. For each result we have further and specific treatment."

"Yes, but it is not effectively carried out as there are no KPIs to measure the progress. It is applicable only for certain courses, which is under shipboard structured training programme. Our institution is not conducting such course."

"The university monitors the progress of the OBT only in case of group practice."

"We have a training book to regularly follow up trainees. Also we have a good collaboration and personal feedback mechanism with shipping companies. We are

inviting all the companies yearly under career week and get personal feedbacks about our cadets currently on board."

"The cadets have a project that must be completed while aboard ship. In the project, there are certain tasks that must be completed. They must also provide detailed descriptions of how those tasks were carried out."

"It is limited possibility to reach the cadets while working on board. In any case an 'onboard tutor' or 'onboard training officer' is always identified."

"In our country, the onboard training is not a part of the maritime education."

"After completing sea service, the TRB is to be submitted to respective head of department of institution, and then passed to Academy."

#### Comments of respondents on question for MET institution (METQ10):

"Only for those competences not achieved."

"We are managing this with our training assessment just after students complete their OBT. We are assigning a group of 5 lecturers (including master competency and sea experience also teaching experience) and evaluating cadets' competencies."

"It's very difficult to make this evaluation possible."

"We, as MET institution, do have a system to evaluate the achievements. Nevertheless, an international comprehensive system will ensure uniformity of evaluation. University has got such a system."

"All OBT training record books are reviewed and validated upon the returning to school by MET faculty."

"Several licensed mariners evaluate the written reports before a passing grade is submitted."

"The MET's Cadet Shipboard Training Director should have an assessment tool that includes oral assessment and mechanism of demonstrating competence."

28 It is important to note that 31 out of 44 MET institutions are satisfied with the quality of OBT and competencies achieved by cadets upon the completion of their OBT (figure 33) and 22 agreed that 12 months of required seagoing service can be reduced through specified competency trainings ashore (figure 34).

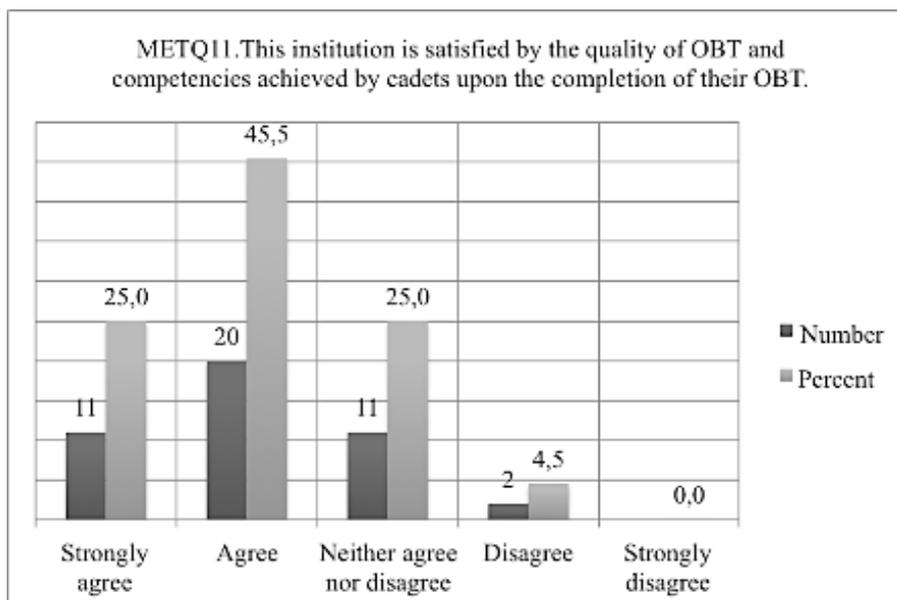


Figure 33

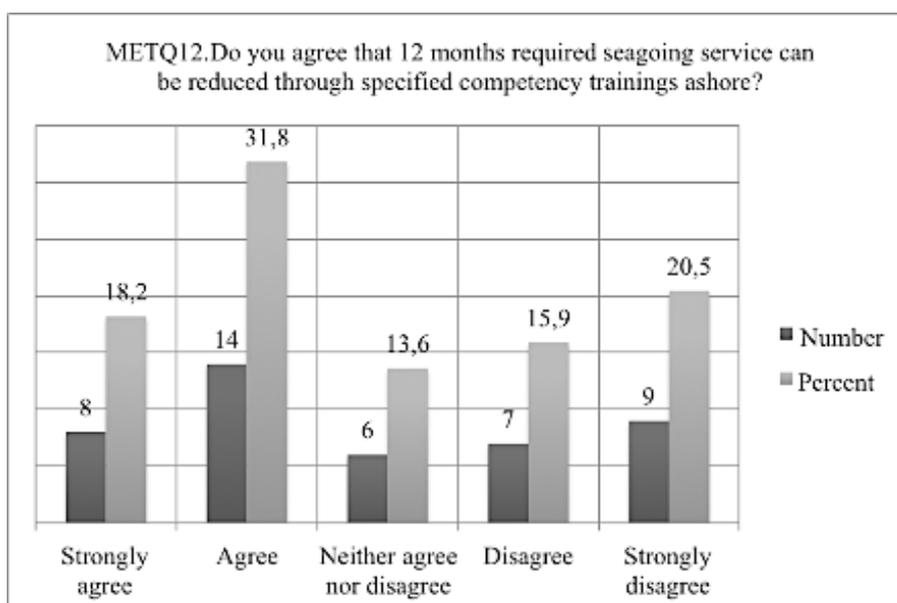


Figure 34

Comments of respondents on question for MET institution (METQ11):

"Again, there is no KPIs to measure to what extent the competencies have been achieved."

"Since cadets do not return to institution after OBT we don't get to keep a track of their OBT except in selected cases where the training company provides an overall general feedback, but not a reflection of the competencies achieved by them."

"Not all the companies have well implemented OBT regulations. Thus, improvements are needed."

"Communication and cooperation with shipping companies is not always easy. The coordination of OBT activity between MET and company is not always ensured, but the experience helps to find solutions optimized for all."

"In our country the OBT is not a part of the maritime education."

Comments of respondents on question for MET institution (METQ12):

"No, according to my experience 12 months seagoing service for cadets is a minimum time required to fulfil all tasks."

"No, as the matter is not only to conduct certain tasks as much as transfer a different kind of experience and gain many hidden skills of maritime elements in various situations."

"OBT is the best teacher and experience for the PO (cadet) to acquire the proficiency in any competency required."

"Seafaring is more practical occupation, than a theoretical one so if the onboard training duration reduced it will directly affect quality of the officers. 12 monthly seagoing training is crucial to rise up qualified seafarers."

"Only for watchkeeping engineer it is possible."

"If an effective competency training scheme is in place and the proper assessment procedure is developed and implemented, then the OBT time could be reduced."

"Generally agree, however 12 months is an acceptable standard. If it reduced, the quality and monitoring of training would need to be enhanced."

"If candidates for issuance CoC never worked in the actual environment, they do not know the expectations might be. They may have the knowledge, but not have the experience. "

"Primary example, being away from land, many young seafarers do not understand the stress and strain from being disconnected from home or social life for long periods. Nor do they understand seafarers work 7 days a week and be on call 24 hours for all 7 days. Ashore training, above all if it means using advanced simulators, can integrate but not used in place of an actual experience on a real ship."

#### **Action requested of the Sub-Committee**

29 The Sub-Committee is invited to note the information provided.

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