



Needs Analysis for Maritime ESP Courses of Iran's Ports and Maritime Organization (PMO)

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Abstract

Limiting the scope of Maritime English (ME) courses to nautical subject matters, due to the conventional views who define ME as the global language used at sea, may not be based on a real needs analysis of English for Specific Purposes (ESP) courses in ports and maritime related organizations. Utilizing a mixed-methods approach, this study aimed to challenge this traditional perception through conducting an ESP needs analysis in Ports and Maritime Organization (PMO) of Iran. All the 17 departments' managers and/or their delegates were interviewed, then a researcher-made questionnaire which was developed according to the interviews was distributed among the experts (70 respondents). The deductive content analysis was used for analyzing the qualitative part, and the quantitative data were analyzed through descriptive statistics. It was revealed that the overall needs of PMO in terms of ESP does not concord with conventional nautical-based Maritime English courses, and it in fact encompasses a much wider variety of content areas such as "port economic, marketing and investment, legal, tariffs, agreements and contracts, education, research, strategic port administration, logistics" etc.

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Introduction

A considerable amount of research has been conducted in the field of ESP courses for different disciplines, and a wide variety of commercial materials are being published for such courses. However, as Kourieos (2015) believes, little effort has been put in the field of Maritime English, a small subcategory of ESP. More specifically, it has been claimed that teaching materials within the requirements of STCW 2010 convention (Standards of Training, Certification and Watchkeeping of Seafarers) are still scarce and limited (Dirgayasa, 2014). Earlier, Pritchard (2004) had reflected such a concern in his report about maritime materials.

Some institutes may, due to their actual needs in target situation, go further and design courses beyond the requirements of STCW convention and with no direct connection to safety. One such case is observed in Ceronav - a Romanian maritime training center (Martes, 2015).

Awareness of the needs rather than the existence of such a need is the distinction between ESP and General English, according to Hutchinson and Waters (1989). Therefore, they believe it should be the first step for devising syllabuses, courses, materials, and classroom procedures. Similarly, Dudley-Evans and St John (1998) considered needs analysis as the corner stone of ESP and one of the key steps in ESP course design.

Many researches in different fields of ESP have testified the existence of a gap between the course contents and target needs, for instance Iranian railway engineering (Atai & Asadi, 2013), Iranian Medical sciences (Nezakatgoo & Alibakhshi, 2014), the engineering colleges of India (Celement & Murugavel, 2015), and the undergraduate civil engineering students of Pakistan (Buriro & Soomro, 2013), etc.

Now, the question is whether the existing books and teaching materials in the field of Maritime English are being produced after a thorough needs analysis of the target groups or not. Answering this question requires us to consider two more fundamental questions: *What is Maritime English and who are its relevant stakeholders in different maritime related entities?* This is where we become aware of the ambiguity of definition and the unidentified stakeholders with their diverse necessities, lacks, wants, and learning preferences. It seems that these issues have not been addressed in an empirical study so far, thus this study aims to fill this gap in literature.

It must be pointed out that the center of focus in Maritime English is on the nautical side, particularly seafarers' communication and safety issues as Trenkner (2000) and Yishan (2008) argued. However, this question could be raised whether Maritime ESP courses encompass the whole realm of maritime affairs and all real work situations of the ever-expanding maritime industry or not. A very recent study offered a negative answer to this question (Khosiyono, Pardjono, & Priyana, 2021).

Ports and Maritime organization (PMO) of Iran is one of the major end-users of maritime ESP courses. The Education and Training Department of PMO is responsible for holding Maritime English courses for the relevant staff, for instance in the form of in-service short courses. Thus, the first question is who the involved persons are. Those with maritime educational background? Those who work in maritime related departments? How about the other departments which do not deal directly with maritime affairs?

The purpose of the current study is to identify the actual beneficiaries and stakeholders of Maritime ESP courses in PMO. It analyses each department's activities/in order to/find out the target situations of language usage, the frequency of usage, the contents and subject matters, and the skills and modes of communication which are needed in order to avoid breakdown in communication.

Research Questions:

Question 1: What departments of Iran's Ports and Maritime Organization can be considered as practical stakeholders of Maritime English courses?

Question 2: What are the needs of Iran's Ports and Maritime Organization's departments in terms of different language skills?

Question 3: What are the needs of Iran's Ports and Maritime Organization's departments in terms of content areas/subject matters?

Literature review

Hemming (2015) believes that Maritime English emerged as a 'lingua franca', which means a common language to be used at sea by seafarers from different nations with different languages. This is in line with Belchers (2009) statement that a lingua franca evolved when English was adopted by speakers whose first language was not English. Therefore, Maritime English is a 'vehicular language' (Franceschi, 2014) that functions as a medium of communication from vessel to vessel, vessel to shore, and vice versa. That is why Dirgeyasa (2018) considers a quite unique situation and status for Maritime English, compared with any other branches of ESP such as English for Journalism, English for Business, and English for Medicine, etc.

While Demydenko (2012) limited the realm of Maritime English to the global language used at sea, Nicolas and Fauziningrum (2018) extended it from the language of sea to the language used by seafarers as well as other maritime professionals in relevant industries. However, it seems that the scholars have not gone much further and mostly limited ESP to the language used for communication between ship and shore, between crewmembers, between crew and captain, and between crew and passengers. This is a critical area where the cost of a communication breakdown can be damaging to the property and environment, as well as causing human casualties.

Aminah and Refnaldi (2020) conducted a survey among the students of maritime vocational high schools of Padang in Indonesia, aiming at identifying their needs of Maritime English. The results showed that the students perceived speaking as their most needed skill in Nautical Merchant Vessel program (31%) and listening skill as the second priority (26%), while writing (24%) and reading (19%) were ranked as the next priorities in this program. In another recent study, Vidhiasi and Syihabuddin (2022) aimed to find out whether the base of Maritime English is English Language utilized for teaching maritime science or it is in fact maritime science which is taught by the medium of English language. It was concluded that Maritime English is indeed English intended for maritime science students.

In another recent survey among the cadets of Indonesian Merchant Marine Polytechnic who finished sea project works, Windiahsari and Wen-li (2021) tried to figure out the difficulties and the necessities of using Maritime English in the professional areas. It was found that cadets

had difficulties in equipment checking report, radiotelephone communication, traffic operation exchange and presentation in English. The study revealed that the cadets are in urgent need of daily English, presentation in English, Standard Marine Communication Phrases (SMCP), English daily reports, and vessels particulars and specifications. The researchers also suggested that ESP courses should be designed in two different forms of general Maritime English and specific Maritime English, accompanied by English language refresher courses for the specialized seafarers.

Pritchard (2019) also fleshed out that a modern Maritime Syllabus is expected to take into consideration the needs of modern seafarers i.e. deck officers, engineers officer etc., needing a wide variety of maritime registers and genres. Zhang and Cole who worked on syllabus mapping, task design and content selection of IMO Model Course 3.17 Maritime English, came to the conclusion that a genre-based ESP curriculum development framework is advisable (2018).

In the context of Iran, Azadsarv, Maftoon, and Rashtchi (2021) developed a needs analysis questionnaire for the Deck Engineering cadets, using factor analysis method. The participants were 350 Iranian male cadets of Imam Khomeini Naval Academy at B.A. level of Deck Engineering. The developed questionnaire included a total number of 44 items categorized into three groups: Skills, Functions, and Maritime Affairs. It was shown that deck cadets eagerly wanted to develop their ESP language skills in order to perform better in their specialized working situations.

Finally, in another study in Iran, it was concluded that the real-life tasks of Iranian maritime engineering students encompass instances such as description of the ship and its components, description of the weather conditions, emergencies happening at the shore and the deck, interactions among the crews, and interacting with the crews on the international ports and borders (Alibakhshi, Labbafi, & Javaheri, 2021). Khoshsiman et al., determined the content area for the students of Maritime English in a project for publishing an ESP/EAP textbook, in which the superiority of nautical subjects is evident (2018).

Methodology

Design and participants

This research was designed as a descriptive case study, and the data were gathered both quantitatively and qualitatively. The scope of the study covered the Ports and Maritime Organization of Iran (PMO) which is divided into 17 departments, based on their different tasks and missions. Since this research is a case study, there were no need for sampling, and in fact the whole relevant departments were involved in the data collection. About 2 to 4 persons from each department were assigned to complete the questionnaires in the second phase. Moreover, in order to include 9 local ports as the sub-branches of PMO, a delegate from the training department of each port was also added to this list to enhance the generalizability of the results. Therefore, the total number of distributed questionnaires exceeded to 70.

Procedure

First, Iran's PMO (the case to be studied here) was divided into 17 distinctive departments, considering their task and missions within the official organizational chart. Then the top manager of each department (in 4 cases their delegates) were interviewed. The first part of the

interview was a free discussion or an unstructured interview in order to clarify the issues and to let the interviewee to recall and concentrate on the key points he/she wished to mention. The second part was a semi-structured interview with average length of 20 minutes. Some key points of the interview were as follows: any record of ESP course held for your department, your opinion about limiting maritime ESP course shareholders to maritime related department or including some other departments as well, your opinion about limiting the content of PMO's ESP courses to nautical issues and IMO conventions or tailoring it based on the actual needs of the organization, your department's need for maritime ESP course, frequent or vital situations in which your colleagues need to communicate in English and their capability to cope with such situations, any content area/subject matter you need to learn in maritime English courses based on your workplace experiences, modes and skills of language you need the most in different working situations, etc.

In the next stage, three questionnaires were developed based on the contents of semi-structured interviews in order to extract more precise and more generalizable opinions, using Likert's 5-point scale. After ensuring the reliability of the questionnaires by distributing them among 10% of participants and calculating Cronbach's alpha, they were distributed during the quantitative phases among assigned experts in different departments. The researchers received some 61 completed questionnaires. Cronbach's alpha was calculated again for the whole items of the received questionnaires, and it was 0.985. This implied that the items of the questionnaires were highly consistent and reliable. As for validity, the questionnaires were presented to three TEFL experts to confirm their face/content validity.

Instruments

The following instruments were utilized in this research:

Due to the nature of the study which is both qualitative and quantitative, at least two different types of instruments were needed for data gathering: a series of semi-structured interviews as well as three different questionnaires, each one designed for one research question. The details are as follows:

Interviews: The semi-structured type of interview was selected for the qualitative part of the research. A series of questions as it was explained in the procedure section were developed, according to the research questions in order to extract views, beliefs, wishes, experiences and preferences of the top managers of each department.

The situations of English language use which had occurred in past or were expected to happen in future, the modes of communication and skills they needed in those situations, and the content areas that their departments usually deal with, were among the main questions. However, it must be pointed out that due discussions went through some more issues such as the interviewee's experiences about PMO's previous ESP courses and any other comments and recommendation for the course designers and relevant decision makers.

Questionnaires: The following questionnaires were developed and utilized during the quantitative data collection phase, using a 5-point Likert's scale. The first questionnaire consisted of three sections and was named *Authentic Language Use Situations for Different PMO's Departments*. A.1. The frequency (occurrence) of language use situations in the past,

which were ranked as: 1. never 2. rarely, 3. sometimes 4. most of times 5. always. A.2. The probability of language use situations in future, with a similar ranking, A.3. The vitality of communication, which was ranked as: 1. absolutely necessary, 2. considerably necessary, 3. somewhat necessary, 4. almost unnecessary, 5. absolutely unnecessary. The questionnaires completed by each department were calculated separately, and the mean scores of different departments were shown in different columns and compared (as shown in Table 1.)

The second and third questionnaires were titled *Significance of Maritime ESP Needs in Terms of Language Modes and Skills*, and *Gap finding for PMO ESP Content Areas*. Both of these questionnaires were developed based on the content analysis of the interviews. There were no need for departmental segregation for these two questionnaires, and they were analyzed for the whole organization. The items in the *Significance of Maritime ESP Needs in Terms of Language Modes and Skills* questionnaire was as follows: 1. absolutely necessary, 2. considerably necessary, 3. somewhat necessary, 4. almost unnecessary, 5. absolutely unnecessary. This questionnaire is shown in Figure 1.

The third questionnaire, called *Gap finding for PMO ESP Content Areas*, comprised of two different sections: one section dealt with the necessity of each proposed subject/content area with similar scale with the questionnaire B. The second section sought for the existence or lack of each subject/content area in regular syllabuses of maritime ESP courses. Its ranking was as follows: 1. completely exists 2. considerably exists, 3. little exists, 4. almost not exists, 5. not exists. The results are shown in Figure 2.

Data Analysis for Quantitative and Qualitative Data

Qualitative phase: The interviews of the qualitative phases of the research were analyzed utilizing deductive content analysis. First of all, the interviews were read two times by the researcher, and the main points of each paragraph was determined. These main points were coded according to the research questions of the study. Then, the frequency of each category was calculated. However, the main point for the content analysis of the interviews was to help the researchers determine the main content areas needed in each of the departments.

The results of the content analysis paved the way for developing the questionnaires *Significance of Maritime ESP Needs in Terms of Language Modes and Skills*, and *Gap finding for PMO ESP Content Areas* used in the quantitative phase. Language use situations shown in Table 2 were one of the outcomes of the interviews which were the basis for developing the *Significance of Maritime ESP Needs in Terms of Language Modes and Skills* questionnaire. The second outcome of the interviews was finding the needed subject/content area of the ESP course, the lack/presence of which in the existing syllabi as well as their significance and vitality were investigated later. The third outcome of the interviews were some in-depth discussions and comments thanks to the case study nature of the research.

Quantitative phase: Owing to the nature of the study, descriptive statistics analysis such as mean, percentage, and SD were used to analyze the quantitative data which were gathered through three different questionnaires. Then the relevant comparisons and interpretations were made.

Results and Findings

Research Question 1: What departments of Iran's Ports and Maritime Organization can be considered as practical stakeholders of Maritime English courses?

Finding stakeholders of maritime ESP courses necessitates finding the extent to which the different PMO's departments are relevant to this course. This could be done by evaluating the amount of their engagement in language use situation both in past and future as well as their vitality. The numbers in Table 1 show the status of each department.

Table 1. Relevancy of Each Department to Maritime ESP Courses (Target Situation Analysis)

Departments	The frequency of language use situations in past (rank from 1 to 5)	The Probability of language use situations in future (rank from 1 to 5)	The vitality of communication (rank from 1 to 5)	Mean (Relevancy)
Education and Training-ports (ET-P)	2/40	OF 2/60	3/50	2/83
Plan and Strategic studies (PSS)	4/00	4/00	3/50	3/83
Vessel registration and inspection (VRI)	5/00	5/00	5/00	5/0
Public and international affairs (PIA)	4/00	4/50	4/00	4/16
STCW	4/60	4/60	5/00	4/73
Education and Training-center (ET-C)	3/75	4/50	5/00	4/41
International special organizations (ISO)	5/00	4/66	5/00	4/88
Human resource management (HRM)	2/66	4/00	4/00	3/55
Maritime equipment (ME)	3/00	3/66	4/33	3/66
Maritime operations (MO)	4/75	5/00	4/75	4/83
MRCC	4/33	4/50	4/66	4/49
Civil engineering (CE)	3/50	3/50	4/50	3/83
Economic affairs (EA)	4/00	4/00	4/66	4/22
Transit and Tariffs (TT)	5/00	4/50	5/00	4/83
Financial affairs (FA)	3/50	4/50	4/00	4
Marine tourism (MT)	2/00	2/50	4/50	3
Port affairs (PA)	3/75	4/50	4/50	4/25
Mean	3/77	4/06	4/42	2/83

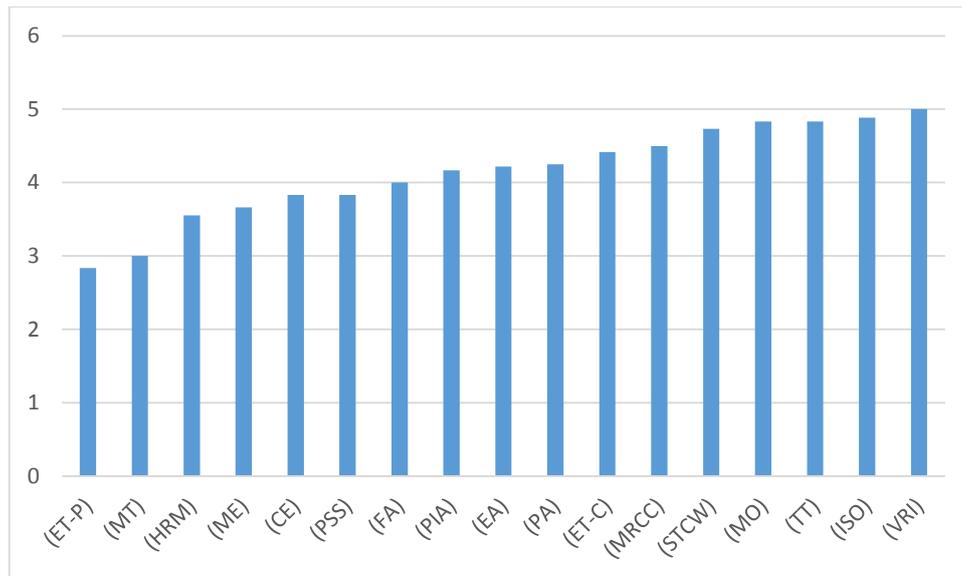


Figure 1. Relevancy of each Departments to Maritime ESP Courses (Target Situation Analysis)

Figure 1 illustrates the rank of each department based on their degrees of relevancy to the course. Although the degree of need for having the course is different from department to department, none of them revealed to be irrelevant because all of the departments have gained at least the half number of Likert spectrum (2.50). Most departments seemed to be considerably relevant to the course, although as it was expected, those dealing directly with cargo handling, navigations, seafarers as well as international organizations expressed a higher interest. The quantitative results of the questionnaires are completely in accordance with the views of the interviewers, in which none of them rejected their relevancy to the course, and all of them stated that they were in severe need of a comprehensive ESP course, covering their own department's subject matters. The director-general of Human Resource Management for instance emphasized: *"at least knowing job titles, functions, locations and offices of a port, as well as key phrases of staffing in English is required"* (Participant 1). The deputy director-general of Financial Affairs explained the situations in which they had to sign contracts in English with foreign parties: *"our hands are trembling of fear as we sign, due to unfamiliarity with the language of text"* (Participant 2). Participant 3, the director-general of Seafarers' Affairs which encompasses both two departments of STCW convention as well as International Special Organizations (ISO) strongly believes that neither maritime universities' nautical-oriented subjects nor IMO's safety-related prescriptions suffice the comprehensive ESP needs of PMO: *"...we are a commercial body, here we deal with legal issues as well, and even with political issues since we represent the country for coastal affairs"*.

Figure 2 shows the gap between target needs and the existing capabilities (knowledge and skills) of the staff in different departments. In other words, it illustrates the discrepancy between the need and required capabilities.

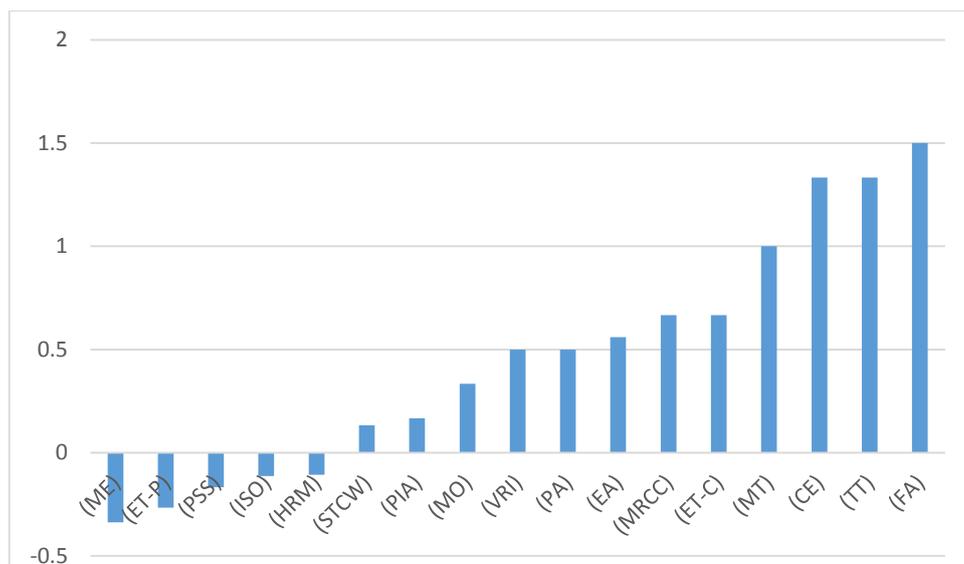


Figure 2. The Gap Between Target Needs and The Existing Capabilities

Negative gap (downward columns) columns imply that the respective departments were already satisfied with their existing level of knowledge and skills. In other words, they believed they were not in severe need of taking ESP courses due to two quite different reasons. They either perceived themselves as being competent enough or thought the consequences of breakdown in communication were not crucial. Maritime equipment, Plan and Strategic studies, Education and Training-ports and International special organizations fall in this category. For the upward part, the higher the columns, the lower satisfaction with their existing level of knowledge and skills. Financial affairs, Transit and Tariffs, Civil engineering, Marine tourism perceived the gap between their existing knowledge and the desired situation was high.

Research Question 2: What are the needs of Iran’s Ports and Maritime Organization’s departments in terms of different language skills?

In the qualitative step as Table 2 shows, the language use situations in PMO were extracted from interviews as the following sub-categories, using deductive content analysis.

Table 2. Situations of English Language Use in PMO

Categories (needed skills)	Sub-categories
Speaking	Presentation of PMO’s official reports orally Greeting the guests and having simple conversations Instructing/PMO’s procedures, operations, machineries, etc. Lengthy speech/lecturing Delicate and complicated business/technical negotiations
Writing	Non-official business Emails Official correspondences Preparing PMO’s PowerPoint files for presentation Writing the contents of PMO’s banners, brochures, sign boards, etc. Drafting PMO’s official contracts,/ reports, news, minutes of multilateral agreements, etc.

	Editing and finalizing PMO's official contracts, reports, news, minutes of multilateral agreements, etc.
Reading	<p>Presentation of PMO's/written reports</p> <p>Understanding the gist of international maritime organization (IMO)'s conventions, resolutions, guidelines, and any other maritime related legal and technical texts</p> <p>Reading in order to translate the texts of international maritime organization (IMO)'s conventions, resolutions, guidelines, etc into Persian.</p> <p>Reading academic texts of their own field</p> <p>Reading banners, brochures, sign boards, etc.</p> <p>Reading instructions of PMO's machineries and equipment</p>
Listening	<p>Participating in meetings/conferences/site visits as an ordinary member (just for listening)</p> <p>Participating in meetings/conferences/site visits as an interactive party</p> <p>Participating in delicate official negotiations as a member of the team</p> <p>Participating in delicate official negotiations as the top negotiator</p> <p>Greeting the guests and having simple conversations</p>

In the quantitative phase, as Table 3 and Figure 3 show, the significance of perceived needs for different language skills in PMO varied from the highest need for speaking and the lowest for grammar. Though writing has attained the lowest ranking among the four modes, it still was perceived to be crucial in some specific working situations based on interviews' content analysis presented in Table 2. The vitality of special vocabulary for preventing breakdown in communication was proved both in qualitative data of interviews and quantitative data of questionnaires. Both sets of data implied the absolute priority of technical words versus grammar. While speaking gained the highest rank in quantitative side of the research, the results of interviews given in Table 2 have emphasized on the significance of reading skill for some specific working situations in PMO, particularly for departments dealing with IMO's conventions.

Table 3. Language Skills Needs Analysis for PMO Staff

Skills	Absolutely unnecessary (%)	Almost unnecessary (%)	Somewhat necessary (%)	Considerably necessary (%)	Absolutely necessary (%)	Mean (%)
Listening	8/2	4/9	11/5	24/6	50/8	4/04
Speaking	3/3	8/2	9/8	26/2	52/5	4/16
Reading	1/6	4/9	18/0	31/1	44/4	4/11
Writing	4/9	11/5	18/0	29/5	36/1	3/80
Technical vocabulary	4/9	4/9	14/8	29/5	45/9	4/06
Grammar	6/6	8/2	29/5	26/2	29/5	3/63

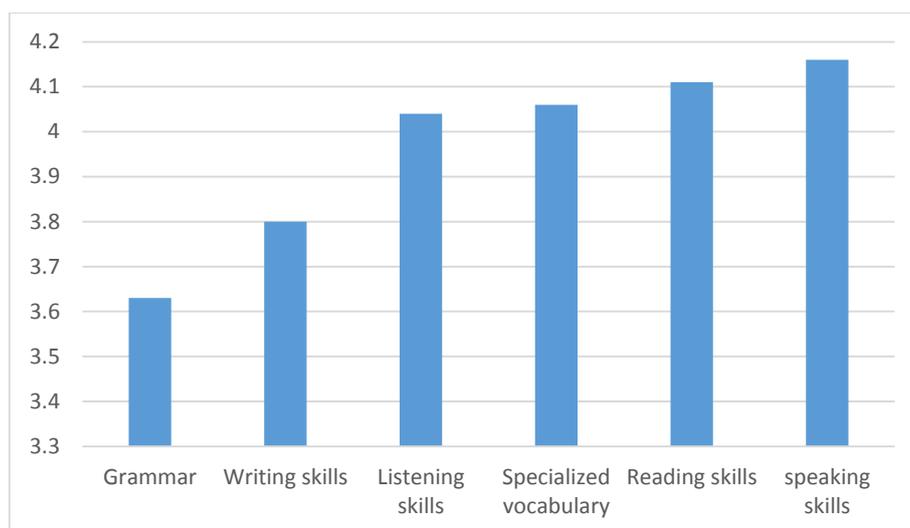


Figure 3. Language Skills Needs Analysis for PMO Staff

Question 3: What are the needs of Iran's Ports and Maritime organization's departments in terms of content areas/subject matters?

The qualitative data extracted from interviews ended up with several subject matters which were classified into 17 categories of content areas. Then their degree of significance as well as their existence were evaluated through questionnaires which are given in tables 4 to 6 and figures 4 to 6. The extracted content areas are listed in Table 4. The degree of necessity of each category is also given according to the views of participants. The mean represents the significance of each category.

Table 4. Content Areas and Their Significance

Content Area	Contents areas	Absolutely unnecessary (%)	Almost unnecessary (%)	Somewhat necessary (%)	Considerably necessary (%)	Absolutely necessary (%)	Mean
S1	Standard Marine Communication Phrases (SMCP)	4/9	3/3	8/2	29/5	54/1	4/24
S2	Ship construction and equipment terms	3/3	4/9	13/1	34/4	44/3	4/11
S3	Maritime law and conventions	3/3	1/6	6/6	29/5	59/0	4/39
S4	Cargo handling and port equipment	3/3	3/3	6/6	42/6	44/3	4/21
S5	Port administration: Authoritative and strategic aspects	6/6	4/9	3/3	45/9	39/3	4/06
S6	Port economic, marketing and investment	3/3	6/6	13/1	27/9	49/2	4/13
S7	Port construction and development (civil engineering)	4/9	11/5	23/0	39/3	21/3	3/60

S8	Port installations (repair and maintenance)	6/6	9/8	24/6	39/3	19/7	3/55
S9	Port and maritime equipment (repair and maintenance)	4/9	8/2	18/0	36/1	32/8	3/83
S10	Public and international relations	3/3	3/3	18/0	29/9	47/5	4/13
S11	Legal, tariffs, agreements and contracts	3/3	3/3	9/8	36/1	47/5	4/21
S12	Human resource management, goal setting, budgeting, organizational structure	4/9	8/2	27/9	37/7	21/3	3/62
S13	Education and training, research and strategic studies	-	4/9	21/3	37/7	36/1	4/04
S14	logistics	4/9	3/3	19/7	31/1	41/0	4/00
S15	Coastal management	4/9	4/9	21/3	36/1	32/8	3/86
S16	Port security and coast guard	6/6	3/3	27/9	26/2	36/1	3/81
S17	Maritime safety and environmental protection	4/9	1/6	11/5	29/9	54/1	4/24

Similarly, Figure 4 ranks the content areas according to their mean which represent the significance of each category. As it is shown, port installations (repair and maintenance) has the lowest significance, while the category of maritime law and conventions was considered to be the most significant content area.

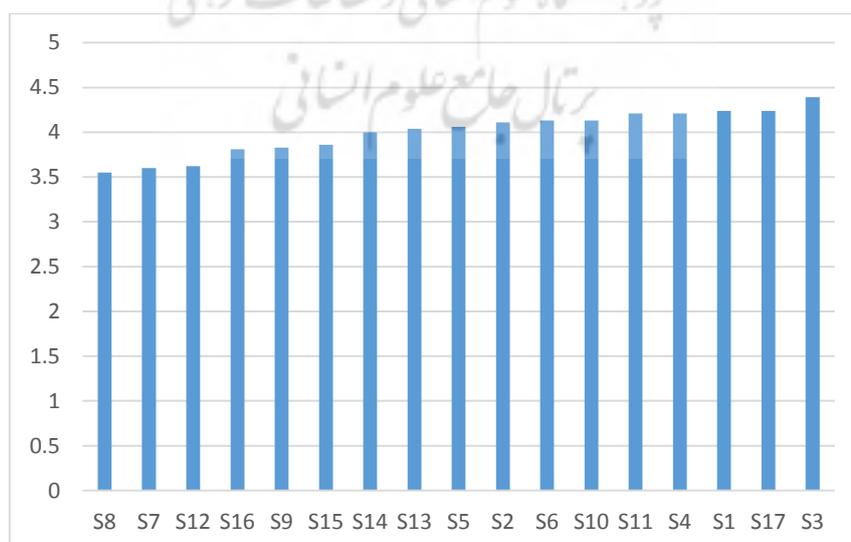


Figure 4. Content Area and Their Significance

Apart from determining the significance of each content area, it is vital to probe its presence in existing course syllabuses and textbooks. The views of participants in this respect are given in Table 5.

Table 5. Existence of Contents in the Current ESP Courses

Row	Contents areas	Not existent (%)	Almost not existent (%)	Little exists (%)	Considerably exists (%)	Completely exists (%)	Mean (%)
ES1	Standard Marine Communication Phrases (SMCP)	14/8	13/1	24/6	24/6	23/0	3/27
ES2	Ship construction and equipment terms	11/5	13/1	31/1	18/0	26/2	3/34
ES3	Maritime law and conventions	14/8	11/5	29/5	26/2	18/0	3/21
ES4	Cargo handling and port equipment	14/8	29/5	29/5	9/8	16/4	2/83
ES5	Port administration: Authoritative and strategic aspects	18/0	32/8	34/4	8/2	6/6	2/52
ES6	Port economic, marketing and investment	23/0	27/9	34/4	8/2	6/6	2/47
ES7	Port construction and development (civil engineering)	23/0	42/6	26/2	3/3	4/9	2/24
ES8	Port installations (repair and maintenance)	29/5	32/8	31/1	4/9	1/6	2/16
ES9	Port and maritime equipment (repair and maintenance)	23/0	36/1	24/6	8/2	8/2	2/42
ES10	Public and international relations	29/5	24/6	24/6	14/8	6/6	2/44
ES11	Legal, tariffs, agreements and contracts	21/3	32/8	29/5	9/8	6/6	2/47
ES12	Human resource management, goal setting, budgeting, organizational structure	42/6	23/0	23/0	4/9	6/6	2/09
ES13	Education and training, research and strategic studies	31/1	26/2	27/9	11/5	3/3	2/29
ES14	Logistics	31/1	24/6	29/5	9/8	4/9	2/32
ES15	Coastal management	29/5	29/5	29/5	8/2	3/3	2/26
ES16	Port security and coast guard	36/1	23/0	21/3	11/5	8/2	2/32
ES17	Maritime safety and environmental protection	24/6	8/2	27/9	24/6	14/8	2/96

Similarly, Figure 5 shows the presence of each content area according to views of the participants. The category of human resource management, goal setting, budgeting and organizational structure were perceived to exist to a small degree within the syllabuses of the course and their relevant textbooks. Ship construction and equipment terms was the content area with the highest presence. Port and maritime equipment (repair and maintenance) as well as public and international relations were the two categories which fell in between.

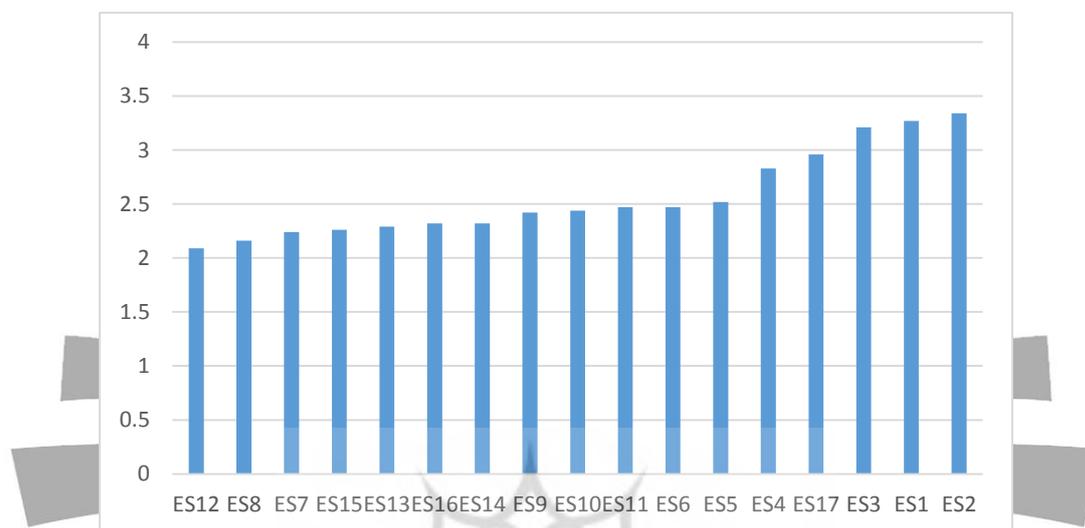


Figure 5. Existence of Contents in the Current ESP Courses

Gap finding is the main purpose of conducting a needs analysis. The gap of content areas can be found by differentiating the mean of significance from the mean of existence for each category. The results are shown in Table 6.

Table 6. Gap of Content Areas

Row	Gap of contents areas (Significance-existence)	Mean S	Mean ES	Mean S- Mean ES
S1-ES1	Standard Marine Communication Phrases (SMCP)	4/24	3/27	0/97
S2-ES2	Ship construction and equipment terms	4/11	3/34	0/77
S3-ES3	Maritime law and conventions	4/39	3/21	1/18
S3-ES4	Cargo handling and port equipment	4/21	2/83	1/38
S5-ES5	Port administration: authoritative and strategic aspects	4/06	2/52	1/54
S6-ES6	Port economic, marketing and investment	4/13	2/47	1/66
S7-ES7	Port construction and development (civil engineering)	3/60	2/24	1/36
S8-ES8	Port installations (repair and maintenance)	3/55	2/16	1/39
S9-ES9	Port and maritime equipment (repair and maintenance)	3/83	2/42	1/41
S10-ES10	Port Public and international relations	4/13	2/44	1/69
S11-ES11	Legal, tariffs, agreements and contracts	4/21	2/47	1/74

S12- ES12	Human resource management, goal setting, budgeting, organizational structure	3/62	2/09	1/53
S13- ES13	Education and training, research and strategic studies	4/04	2/29	1/75
S14- ES14	logistics	4/00	2/32	1/68
S15- ES15	Coastal management	3/86	2/26	1/6
S16- ES16	Port security and coast guard	3/81	2/32	1/49
S17- ES17	Maritime safety and environmental protection	4/24	2/96	1/28

The gaps of content areas found in Table 6 have arranged ascendingly in Figure 6. Ship construction and equipment terms as well as the category of Standard Marine Communication Phrases (SMCP) seemed to have less gap. This implies that they were covered more favorably within the courses. In contrast, education and training, research and strategic studies as well as the category of legal, tariffs, agreements and contracts were perceived to have the highest gap.

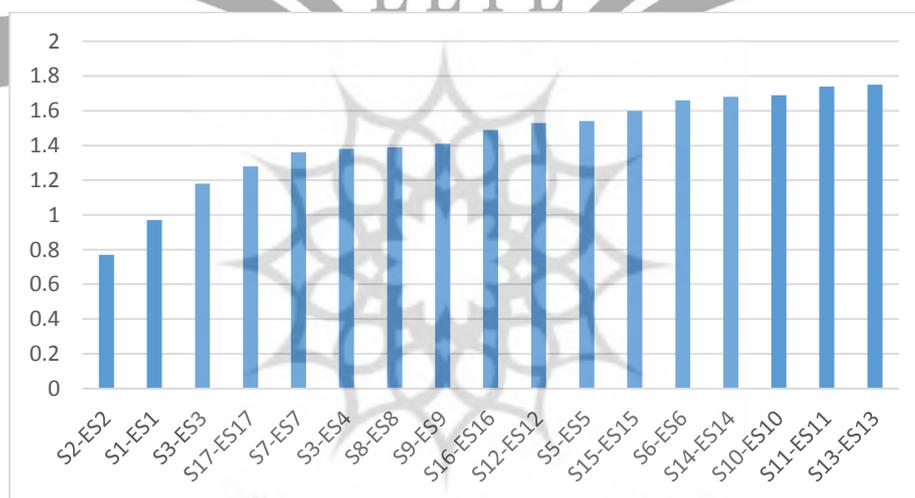


Figure 6. Gap of Content Areas

As an overall analysis, pure nautical subjects and those related to International Maritime Organization (IMO) such as “maritime law and conventions, maritime safety and environmental pollution, Standard Marine Communication Phrases (SMCP), cargo handling and port, ship construction and equipment” turned out to be of top priorities of PMO. However, as table 4 and figure 4 vividly reveal, the suggested syllabi to be included in ESP courses of PMO covers a much wider variety of subject matters than the curriculum and syllabuses presented in maritime universities for nautical students of traditional deck and engine disciplines. In qualitative part of the research for instance, no one ever mentioned very detailed subjects of nautical science such as route planning, celestial navigation, terrestrial navigation, rule of roads, collision avoidance regulations, etc.

On the other hand, thanks to administrative and the same time commercial nature of PMO, subjects such as “port economic, marketing and investment, legal, tariffs, agreements and contracts, education and training, strategic studies, authoritative and strategic aspects of port administration, logistics” etc. stand side by side with nautical subject matters.

Table 5 and Figure 5 interestingly prove the trace of traditional attitude about the superiority of nautical science in PMO's ESP courses: all five top categories of subject matters that are already available in existing courses belonged to the realm of nautical sciences: "ship construction and equipment terms, Standard Marine Communication Phrases (SMCP), maritime law and conventions, maritime safety and environmental pollution, cargo handling and port equipment". This is while several significant issues such as "coastal management, port construction and civil engineering, port equipment maintenance and repair" were perceived to be available in a lesser degree.

Table 6 and Figure 6 show the gap of content areas by comparing the degree of significance with the degree of existence for each category of content area. In accordance with what is shown in Table 5 and Figure 5, the first four categories with less paucity in Table 6 and Figure 6 belonged to the realm of nautical subject matters. None of the following five most lacking areas, despite their relative significance according to Table 6 and Figure 6, are related to nautical subject matters: "education and training, research and strategic studies, legal, tariffs, agreements and contracts, port public and international relations, logistics, port economic, marketing and investment". Surprisingly, none of the five categories with the highest gap in Table 6 and Figure 6 were identical to the five less significant subject matters in Table 4 and Figure 4. Altogether, it could be interpreted that there were some lacks in areas of subjects in PMO's ESP courses despite the necessities and wants declared by the stakeholders within current need analysis.

Conclusion

Needs analysis is the key element which differentiates an ESP from GE courses. However, this process may be ignored or deviated when it comes to designing an ESP course for maritime related entities due to influence of IMO and nautical academies. In fact, what are taught in nautical disciplines as well as what are emphasized by IMO as the cornerstone of maritime ESP courses may not fulfill the requirements of a successful communication in specific working situations of maritime organizations, as it was the case in Iran's PMO. This study revealed lacks and gap areas of subject matters in PMO's ESP course according to the necessities and wants declared by the stakeholders. It also made clear that the stakeholders of the course should not be limited to pure maritime related departments. Similarly, the required subject matters go beyond nautical issues and they cover areas such as economy, marketing, law, administration, civil engineering, etc.

No previous ESP course contents were available for content analysis. There was no possibility of conducting a placement test among the participants in order to evaluate their self-reported level of knowledge. However, the research was designed in a way that avoids such hindrances.

Since this research was based on views and opinions of relevant persons, a corpus study of the recorded language used in PMO is suggested as the second step. Similarly, a comparative content analysis of maritime universities' textbooks in light of findings of this study is also advisable for further studies.

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