

# Categorizing Learners' Needs in English for Occupational Purposes (EOP): A Proposed Taxonomy

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Received on: 08 July 2024

Accepted on: 11 August 2024

Published on: 03 September 2024

## ABSTRACT

*Teaching English for Specific purposes (ESP) necessitates exerting tremendous efforts and carrying out tasks prior to the implementation of such courses. These tasks involve identifying learners' needs and developing teaching material with specific discourse. The fact that learners are individuals with unique requirements should be considered, and here is where learning needs come into play. In addition to the learning environment, learning needs should take into account elements like motivation, strategies and skills. The aim of this study is to propose a categorization of learners' needs during the implementation of ESP courses in professional contexts. To this end, the researchers employed a sequential exploratory research design hypothesizing and constructing a taxonomy that included four different dimensions of learners' needs: language, cognitive, psychological and environmental. This was operationalized through an observation process conducted at a Cardiac Care Centre in Aswan, south of Egypt during EOP courses for nurses. To measure learners' perceptions towards the proposed taxonomy, a questionnaire was disseminated to cardiac care nurses. Preliminary findings have revealed that the responses of the participants (n=94) were positive towards the proposed taxonomy of EOP learners' needs. Based on the findings of the study, it is recommended that ESP instructors take into consideration cognitive, psychological and environmental needs alongside the language needs of learners prior to and during the implementation of ESP courses.*

**Keywords:** English for Occupational Purposes, Needs Analysis, Taxonomy of Needs.

## 1. INTRODUCTION

ESP is a new approach to teaching English to various domains and industries and is more focused on language in context for certain pre-determined purposes based on an evaluation of the needs and the wants of the targeted group of learners (Paltridge and Starfield 2013; Rahman 2015; Hafner and Miller 2018). It is, therefore, a special language that is primarily used in a specific setting by certain groups of participants (Mackay and Mountford 1978 as cited in Khalid 2016). ESP can be divided into a variety of subfields within

specifically prepared English classes, including the social sciences, business and economics, and science and technology. English for Academic Purposes (EAP) and English for Occupational Purposes (EOP) are the two primary divisions into which all English classes specifically designed for those professions may be divided (Hutchinson and Waters 1987; Pranoto and Suprayogi 2020). In order to conduct an ESP course, instructors should consider the four pillars of ESP courses (Anthony 2018). These pillars are needs analysis, learning objectives, materials and methods, and evaluation.

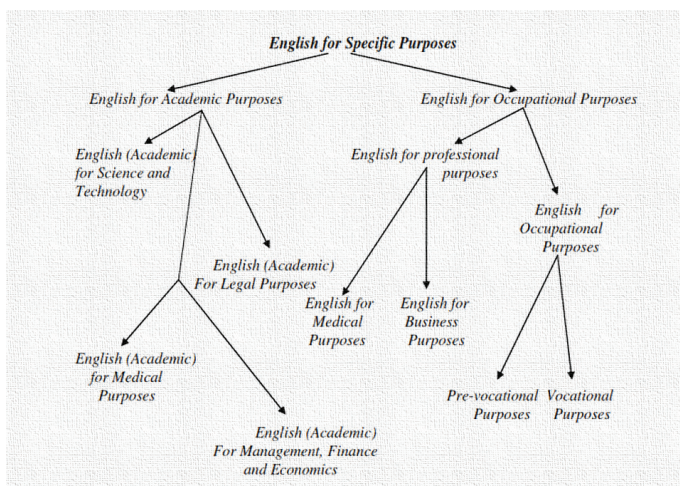


Figure 1: Classification of English for Specific Purposes in Hutchinson and Waters (1987)

Analyzing learners' needs is a crucial step in creating an English language course. It helps ESP instructors to set goals and objectives, and directs the creation of instructional materials, tests, and evaluation techniques (Jihui 2008). Needs analysis has been created for decision-making in education and human services that support grant financing, planning, and resource allocation (Long 2018). According to Otilia (2012), needs analysis in English for Specific Purposes (ESP) has changed throughout time, focusing on identifying target situations, evaluating learners' communicative requirements, and putting effective instructional techniques into practice (see Appendix A). It is even more intricate; in addition to identifying the target situation and environment of ESP study, its goals include collecting information about the learners (Yuriatson Jubhari et al. 2022). It involves using questionnaires, interview checklists, and documents to collect information about students' needs and perspectives (Gozali 2018). Furthermore, Aprianto (2020) identified three essential factors that are needed to be taken into consideration: input (content), process (teaching method), and output (outcome). Similarly, Ibrahim (2016) argued that needs analysis in ESL courses includes target needs analysis, present situation analysis, and learning means analysis. Furthermore, the process of applying needs analysis follows a specific sequence in order to obtain accurate data and decide to carry out effective or

remedial actions. The steps of conducting a needs analysis are demonstrated in Figure 2.

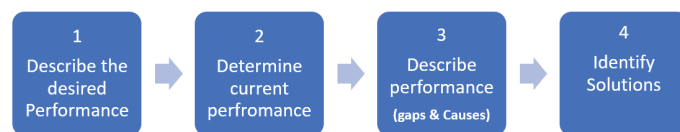


Figure 2: Steps of Needs Analysis according to Berkeley Lab training. Source: Needs Analysis (2022)

Numerous needs analyses have been conducted in recent years to determine the language requirements for college students and professionals in various domains. Pranoto and Suprayogi (2020) conducted a needs analysis for physical education students. The analysis revealed the desired topics of physical education students (e.g., English for sports, English for journalism, English for professional athletes) and the needs for developing their spoken and written English skills to thrive as professional athletes on an international scale. Alhadiyah (2021) conducted a study to investigate the communication requirements of engineering students in Saudi Arabia. The study's conclusion included a set of communication exercises and details on the frequency and difficulty of the activities reported by the students. Meunchong (2023) also looked at the challenges and needs in English that homestay hosts in Thailand's isolated Phetchabun province deal with. The study concluded that the majority of homestay entrepreneurs need English learning resources that are bilingual (Thai - English) with Thai language reading and meaning, like a booklet that contains information on how to greet guests, what to expect in each room, how much it costs, what amenities are included, and a self-guided tour schedule of the community. Finally, Chemir and Kitila (2022) explored the role of needs analysis in EAP courses prior to designing a language curriculum for Ethiopian higher education students. The results showed that the students' approaches to learning English are both integrative and instrumental. However, since the majority of research participants believed that students primarily needed English for practical reasons, instrumental motivation outweighed integrative drive.

The fact that learners are individuals with special requirements should be taken into consideration. These requirements may include motivation, strategies, skills as well as the learning situation; i.e. the time and place where the course is conducted (Hutchinson and Waters 1987). Corroborating this argument, Brindley (1989) stated that adult ESL course designers should take into account individual requirements as well as language use when analyzing needs. This involves considering variables such as learning styles, expectations, motivation, attitudes, and personality. Yet, since none of previously mentioned studies classified or proposed the different needs of learners, the current study investigates determining, proposing and categorizing the types of needs for language learners to conduct successful EFL and ESP courses. The significance of the study lies in the classification of the various types of needs that EAP and EOP teachers need to take into account when designing and delivering their courses. In the pursuit of filling this gap, the study purports to answer the following questions:

1. What are the proposed needs of EOP learners?
2. How can EOP learners' needs be categorized?
3. To what extent do these needs enhance language learning from the researchers' perspective?

## 2. METHODOLOGY

The methodology section is concerned with the design of the study, participants, data collection, statistical analysis procedures and the research procedures and stages. The main purpose of the study is to propose and categorize EOP learners' types of needs, especially cardiac care nurses.

### 2.1 Study Design and Participants

The study adopts a pragmatist approach, qualitative and quantitative employing two data collection tools: a participant structured observation and a constructed questionnaire. The observation acted as an exploratory tool whereas the questionnaire acted as a confirmatory tool. The taxonomy was proposed due to the findings of the observation process. The questionnaire was applied to confirm the findings of the observation process. Participants were cardiac care nurses working for one of the cardiothoracic Centers offering free-of-charge services for patients with congenital and developed heart diseases. The vision of Centre revolves around providing optimum patient care, offering professional development

courses and education for its staff members and conducting scientific and academic research to develop its practices.

Table 1. Demographic Information of the Study Participants (n = 94)

| Demographic Information               | No. | %    |
|---------------------------------------|-----|------|
| <b>Sex</b>                            |     |      |
| Male                                  | 52  | 55.3 |
| Female                                | 42  | 44.7 |
| <b>Age</b>                            |     |      |
| Between 20 and 25                     | 41  | 43.6 |
| Between 26 and 30                     | 33  | 35.1 |
| Between 31 and 35                     | 13  | 13.8 |
| Over 35                               | 7   | 7.4  |
| <b>Years of Experience in nursing</b> |     |      |
| Less than a year                      | 12  | 12.8 |
| 1 to 3 years                          | 33  | 35.1 |
| 4 to 6 years                          | 25  | 26.6 |
| 7 to 10 years                         | 16  | 17.0 |
| More than 10 years                    | 8   | 8.5  |

Table 1 shows the demographic information obtained through the constructed questionnaire administered to the cardiac care nurses following the observation process. As revealed, out of 94 nurses, 52 were male nurses whereas 42 were female nurses. In terms of their age, 74 nurses were between 20 to 30 years old, and 20 nurses were above 31 years old. With regard to their experience, 12 nurses had less than a year, 58 nurses had from 1 to 6 years collectively and 24 nurses had 7 years and above.

### 2.2 Instruments of Data Collection

The observation process was conducted by one of the researchers, who acted as the English instructor for nurses, over 6 months with 2 sessions a week (see Appendix B). As previously mentioned, one of the researchers was the ESP instructor which leads to the fact that it was a participant observation. Yet, since there was a specific time for the English session and pre-determined schedule, the observation was also a structured process. Notes were taken in every English session. The researcher, then, organized and analyzed the notes to finally classify them in a taxonomy.

As regards the questionnaire, it was constructed by the researchers based on the observation findings.

It consists of six sections: the first section (3 Questions) aims to elicit demographic information about the participants. The following five sections (28 Questions) aim to elicit information on the perceptions of cardiac care nurses regarding the linguistic, cognitive, psychological and environmental needs to conduct a successful ESP course in a professional context. The questionnaire was piloted over 5 nurses in order to check its reliability and validity. A few statements have been modified for appropriate wording. The questionnaire was disseminated through a link to a google form. Google forms are known for their efficiency, reliability and practicality in calculating surveys and quizzes results.

### 2.3 Statistical Procedures

Data were fed to the computer and analyzed using IBM SPSS software package version 20.0. The used tests were as follows:

1. **Pearson coefficient** to correlate between two normally distributed quantitative variables
2. **Cronbach's Alpha** Reliability Statistics were assessed using Cronbach's Alpha test.
3. **Mean scores and participants proportions** for the questionnaire items.

Table 2. Reliability statistics

| Sections               | Cronbach's Alpha | No. of Items |
|------------------------|------------------|--------------|
| B) Linguistic Needs    | 0.878            | 6            |
| C) Cognitive Needs     | 0.863            | 7            |
| D) Psychological Needs | 0.842            | 6            |
| E) Environmental Needs | 0.834            | 7            |
| F) Direct Questions    | 0.667            | 2            |

As regards the questionnaire validity and reliability, Cronbach Alpha coefficient was applied to each of the questionnaire sections to measure its reliability. As shown in Table 2, the linguistic needs had the highest reliability level ( $\alpha = 0.878$ ), then comes the cognitive needs ( $\alpha = 0.863$ ). The psychological needs come in third place with a reliability coefficient ( $\alpha = 0.842$ ). The environmental needs section had a ( $\alpha = 0.834$ ) and finally the direct questions coefficient was ( $\alpha = 0.667$ ). As for the validity of the questionnaire, all sections were statistically significant at ( $p \leq 0.05$ ) following the application of Pearson coefficient ( $r$ ).

### 2.4 Stages of the Study

As shown in Figure 3, the study went through 3 stages. The first was the exploration and identification stage as the researchers reviewed the relevant literature so as to gain more knowledge about learners' needs and the needs analysis and discover the gap of the research. Then, one of the researchers conducted a participant structured observation over 6 months in various ESP classes and took notes to be analyzed later on. Following the analysis of the observation notes, a taxonomy of the types of learners' needs was constructed.

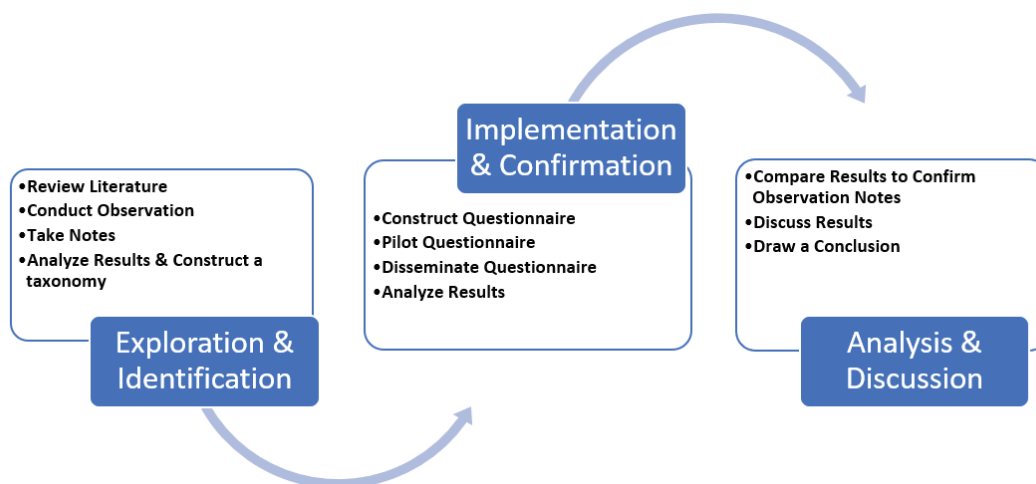


Figure 3: Stages of the study

The implementation and confirmation stage (2<sup>nd</sup> stage) included constructing a questionnaire based on the observation results. After that, the questionnaire was piloted on 5 nurses for its practicality, validity and reliability. It was then administered to nurses and was left open to accept responses for a week. In the end, the results were analyzed using the Statistical Package for Social Sciences (SPSS) program applying various tests as mentioned in the statistical procedures section. Finally, in the analysis and discussion stage (3<sup>rd</sup> stage), the results were compared following their analysis and some conclusions were reached.

### 3. FINDINGS OF THE STUDY

The findings of the research were extracted following the analysis of the data collected from the observation first then confirmed by questionnaire. The exploratory tool was the observation, from which the taxonomy was constructed, whereas the data confirmatory tool was the questionnaire.

#### 3.1 Observation

Designing and tailoring ESP courses is never an effortless process. It requires and necessitates collecting a considerable amount of information about learners in terms of their aims, their expectations, their abilities, their educational background and other language learning influencing variables. For this reason, one of the authors carried out a structured, participant observation process on the ESP and general English courses provided by one of the cardiac care Centers

to its staff nurses in Egypt. The courses were held over a period of six months. During this time, it was found that learners do not only have language needs, but also cognitive, psychological and environmental needs. The authors sorted out these needs in a taxonomy demonstrated in Figure 4.

The taxonomy is divided into four dimensions: language, cognitive, psychological and environmental. All of them are elements that affect the designing and delivery of not only ESP but also any English language courses. The language needs include language fluency and accuracy, reception and production of the second/foreign language, discourse and genre identification, language contextuality and register and, finally, social interaction. The cognitive needs address matters of mental processing of information and language acquired through the designed activities. It includes various concepts: attention and curiosity, reasoning (critical thinking, creativity, problem-solving, analysis, evaluation and synthesizing), visual and auditory processing, learning strategies and, finally, learning preferences. The psychological needs are concerned with the affective or psychological status of the learners and their inclusion in the course activities. It involves promoting self-confidence and raising self-esteem, commitment and self-discipline, the encouragement of autonomy, collaboration and relatedness and finally raising learners' interest. The environmental needs include the avoidance of over-stress, showing professional behaviour, practicality of resources, safety and comfort of learners, cross-cultural understanding, cooperation and empowerment and finally appropriate organization of the courses.

| Taxonomy of Needs in ESP  |  |  |   |
|---|--|--|---|
| Language Needs  | Cognitive Needs  | Psychological Needs  | Environmental Needs   |
| 1- Fluency & Accuracy<br>2- Reception & Production of Language<br>3- Discourse & Genre Identification<br>4- Contextuality & Authenticity of target language<br>5- Social Interaction with Target Language | 1- Attention & curiosity<br>2- Reasoning, Critical Thinking and creativity<br>3- Clarity of Purpose & Direction<br>4- Visual & Auditory Processing<br>5- Learning Preferences & cognitive Strategies | 1- Self-confidnece & Self-esteem<br>2- Commitment & Self-discipline<br>3- Promote Autonomy<br>4- Belonging to Learners' Group<br>5- Learners' Interest | 1- Professional Behaviour<br>2- Practicality of Resources<br>3- Safety & Comfort<br>4- Cross-cultural Understanding<br>5- Cooperation & Empowerment<br>6-Appropriate Organization of the course |

Figure 4: Taxonomy of learners' needs

Learners enroll in language courses to gain the capability of using the target language effectively for various sorts of communication. Writing emails, reports, social media posts, job contracts and other sorts of written communicative linguistic forms are a prime example of such language needs. During the courses implemented at the cardiac care Centre, the instructor noticed that nurses were striving to become fluent in English and requested detailed feedback for their mistakes and errors to improve the way they write or speak. In order to do that, they needed to listen to recorded conversations and lectures, and read a lot of medical texts with various nursing related topics in an attempt to enhance their knowledge of nursing and improve their nursing-related language skills. They even requested the references from which the instructor brought the texts and the recorded conversations. Their ability to write was satisfactory; however, they needed to identify the genres of emails, reports and nursing notes so as to be able to analyze and write them independently in a practical manner. They also needed to identify the real-life language at work. That is why the instructor brought some authentic texts and conversations to show them how language is used in the nursing cardiac care context. The interesting part for the learners was the interaction activity. This activity required them to use the language learned in every session. It provided them with some motivation to continue learning, though there was some anxiety during the activity that needed to be addressed by the instructor.

As for cognitive needs, learners appreciate and conform to whoever respects their minds. They like to be curious about what they learn and how they learn it. They become attentive to the miniature details if they feel interested in the topic. For this reason, the instructor had to always ignite their interest with the learning resources (e.g., visuals and audios), discussions, feedback and the teaching methodology. In addition, a lot of the cardiac care Centre nurses did not know how to study their lessons after they finish their sessions. Yet, it was a must for the instructor to provide them with diverse strategies of learning and recalling while considering their individual differences and learning preferences (e.g., auditorily, visual, kinesthetic). Additionally, before every lesson, it was important to clarify what language functions, rules or vocabulary they will learn and how the instructor is going to implement that. In doing so, the instructor always started the sessions with lead-in questions to identify their expectations and inform them about

what they are going to learn. This is because they were adult learners who always yearned to know the purpose of the session.

The psychological needs were as important as the language and cognitive needs. Nurses needed to feel respected and self-confident in order to be motivated to learn. This was obvious when the instructor asked them politely to do their tasks, praised them and celebrated their tiny achievements. It was also useful to remind them of their commitment to the course time and tasks so that they would remember the due dates of their tasks as they were heavily loaded with job responsibilities. Moreover, the instructor promoted their autonomy through giving them topics to look for on the internet and words to look up their meanings in dictionaries. This need gave nurses a sense of achievement and created an ability to construct their own knowledge. It was uplifting and motivating for them to feel that they are in control of their own learning. Furthermore, it is the responsibility of the instructor to prevent any kind of ostracism or rejection in the English class as learners who feel related to the group will always be happy and motivated to learn.

The surrounding environment has to be well-prepared for teaching and learning. Professional behaviour with the teacher and the administration of the workplace and vice versa can pave the way towards a promising learning environment. Learners have to communicate properly, act politely and participate in class enthusiastically. Teachers, on the other hand, have to make sure that learners feel comfortable and safe, avoid giving stressful tasks, use practical resources for teaching, integrate technology, empower learners to use the language effectively and ensure respect is there for all learners even if they are from different cultural backgrounds.

### 3.2 Frequencies of the Questionnaire Items

Tables 3, 4, 5, 6 and 7 demonstrate the quantitative data collected from cardiac care nurses. The tables include data on the language, cognitive, psychological and environmental needs of learners in the ESP classes. As previously mentioned in the methodology section, the questionnaire collected data corroborate the qualitative data collected from the observation process and the suggested needs taxonomy.

Table 3. Language needs: Frequencies of questionnaire items (n = 94)

|   | B) Language Needs   |     | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean rank | Direction |
|---|---|-----|-------------------|----------|---------|-------|----------------|-----------|-----------|
| 1 | I need to improve my target-language fluency and accuracy in an ESP course through effective activities.  | No. | 0                 | 0        | 7       | 36    | 51             | 4.47      | High      |
|   |   | %   | 0.0               | 0.0      | 7.4     | 38.3  | 54.3           |           |           |
| 2 | I need to receive and produce target language vocabulary and grammar through field-specific reading texts and listening recordings.   | No. | 0                 | 0        | 9       | 38    | 47             | 4.40      | High      |
|   |   | %   | 0.0               | 0.0      | 9.6     | 40.4  | 50.0           |           |           |
| 3 | I need to identify the type and the structure of the text used in the activities to be familiar with the language used in it.   | No. | 0                 | 1        | 5       | 44    | 44             | 4.39      | High      |
|   |   | %   | 0.0               | 1.1      | 5.3     | 46.8  | 46.8           |           |           |
| 4 | I need to see the target language used in various contexts in an ESP course (e.g., listening field-specific situations, field-specific reading texts).  | No. | 0                 | 1        | 7       | 52    | 34             | 4.27      | High      |
|   |   | %   | 0.0               | 1.1      | 7.4     | 55.3  | 36.2           |           |           |
| 5 | I need to identify the appropriate language for formal, semi-formal and informal field-specific situations.   | No. | 0                 | 0        | 7       | 39    | 48             | 4.44      | High      |
|   |   | %   | 0.0               | 0.0      | 7.4     | 41.5  | 51.1           |           |           |
| 6 | I need to use the target and field -specific language through activities that provide social interaction with my classmates to be familiar with and practically use it at workplace later on. | No. | 0                 | 0        | 3       | 51    | 40             | 4.39      | High      |
|   |   | %   | 0.0               | 0.0      | 3.2     | 54.3  | 42.6           |           |           |

As Table 3 shows, a total number of 87 nurses (92.6%) either strongly agreed or agreed that they need to improve their target-language fluency and accuracy in an ESP course through effective activities and only 7 nurses adopted a neutral disposition. In item 2, 85 nurses constituting 90.4 % stated that they need to receive and produce target language vocabulary and grammar through field-specific reading texts and listening recordings, only 9 nurses were neutral. Moreover, 88 nurses representing 93.6 % confirmed that need to identify the type and the structure (e.g., emails, specialized reports) of the text used in the activities to be familiar with the language used in it whereas only one disagreed and 5 were neutral. 86

nurses comprising 91.5% approved that they need to see the target language used in various contexts in an ESP course (e.g., listening field-specific situations, field-specific reading texts), only one disagreed and 7 positioned themselves in the neutral zone. Added to this, 87 nurses (92.6%) asserted that they need to identify the appropriate language for formal, semi-formal and informal field-specific situations. Finally, in statement 6, 91 nurses constituting 96.9% approved that they need to use the target and field -specific language through activities that provide social interaction with their classmates to be familiar with and practically use it at workplace later on, none disagreed to the statement and only 3 were neutral.

Table 4. Cognitive needs: Frequencies of questionnaire items (n = 94)

| C) Cognitive Needs |   |     | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean rank | Direction |
|--------------------|---|-----|-------------------|----------|---------|-------|----------------|-----------|-----------|
| 7                  | I need my critical thinking, problem-solving and creativity skills to be developed through activities that enhance them effectively in an ESP class.  | No. | 0                 | 0        | 7       | 52    | 35             | 4.30      | High      |
|                    |   | %   | 0.0               | 0.0      | 7.4     | 55.3  | 37.2           |           |           |
| 8                  | I need to improve my detail-attention skill and enhance my curiosity through designed activities, course instructor's mentoring skills or teaching methodology.   | No. | 0                 | 0        | 8       | 49    | 37             | 4.31      | High      |
|                    |   | %   | 0.0               | 0.0      | 8.5     | 52.1  | 39.4           |           |           |
| 9                  | I need the instructor to use illustrative and legible pictures that are suitable to my level of English and contain the target and field specific language to understand and process information covered in them. | No. | 0                 | 1        | 8       | 47    | 38             | 4.30      | High      |
|                    |   | %   | 0.0               | 1.1      | 8.5     | 50.0  | 40.4           |           |           |
| 10                 | I need the instructor to use clear and interpretive recordings that are suitable to my level of English and contain the target and field specific language to understand and process information covered in them. | No. | 0                 | 2        | 5       | 50    | 37             | 4.30      | High      |
|                    |   | %   | 0.0               | 2.1      | 5.3     | 53.2  | 39.4           |           |           |
| 11                 | I need the instructor to inform me of the course plan, the aims and the expected outcome.   | No. | 0                 | 0        | 8       | 38    | 48             | 4.43      | High      |
|                    |   | %   | 0.0               | 0.0      | 8.5     | 40.4  | 51.1           |           |           |
| 12                 | I need the instructor to teach me some learning strategies to achieve the outcome of the ESP course.  | No. | 1                 | 2        | 10      | 38    | 43             | 4.28      | High      |
|                    |   | %   | 1.1               | 2.1      | 10.6    | 40.4  | 45.7           |           |           |
| 13                 | I need the instructor to consider my learning preferences when designing activities in an ESP course.   | No. | 0                 | 0        | 5       | 45    | 44             | 4.41      | High      |
|                    |   | %   | 0.0               | 0.0      | 5.3     | 47.9  | 46.8           |           |           |

In terms of learners' cognitive needs, out of 94 nurses, 87 nurses (92.5%) confirmed that they need their critical thinking, problem-solving and creativity skills to be developed through activities that enhance them effectively in an ESP class. Also, 86 nurses constituting 91.5% approved that they need to improve their detail-attention skill and enhance their curiosity through designed activities, course instructor's mentoring skills or teaching methodology. Added to that, 85 nurses (90.4%) stated that they need the instructor to use illustrative and legible pictures that are suitable to their level of English and contain the target and field specific language to understand and process information covered in them.

87 nurses representing 92.6% stated that they need the instructor to use clear and interpretive recordings that are suitable to their level of English and contain the target and field specific language to understand and process the information covered in them. 86 nurses (91.5%) stated that they need the instructor to inform them of the course plan, the aims and the expected outcome. Furthermore, 81 nurses (86.1%) confirmed that they need the instructor to teach them some learning strategies to achieve the outcome of the ESP course. Finally, in item 13, 89 nurses (94.7%) stated that they need the instructor to consider their learning preferences when designing activities in an ESP course.



Table 5. Psychological needs: Frequencies of questionnaire items (n = 94)

|    | D) Psychological Needs   |     | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean rank | Direction |
|----|--|-----|-------------------|----------|---------|-------|----------------|-----------|-----------|
| 14 | I need the course instructor to design activities that enhance my self-confidence and self-esteem in an ESP class.                         | No. | 0                 | 0        | 9       | 42    | 43             | 4.36      | High      |
|    |  | %   | 0.0               | 0.0      | 9.6     | 44.7  | 45.7           |           |           |
| 15 | I need the instructor to give me constructive feedback and not to discourage me in an ESP class.   | No. | 1                 | 1        | 4       | 43    | 45             | 4.38      | High      |
|    |  | %   | 1.1               | 1.1      | 4.3     | 45.7  | 47.9           |           |           |
| 16 | I need the course instructor to enhance my commitment through giving me reasonable tasks to do on my own or with my classmates.            | No. | 0                 | 4        | 8       | 45    | 37             | 4.22      | High      |
|    |  | %   | 0.0               | 4.3      | 8.5     | 47.9  | 39.4           |           |           |
| 17 | I need the course instructor and the learning resources to enhance my research skills and learning on my own.                              | No. | 0                 | 3        | 8       | 39    | 44             | 4.32      | High      |
|    |  | %   | 0.0               | 3.2      | 8.5     | 41.5  | 46.8           |           |           |
| 18 | I need to feel a sense of belonging to the group of learners and the field in an ESP class.  | No. | 0                 | 2        | 11      | 50    | 31             | 4.17      | High      |
|    |  | %   | 0.0               | 2.1      | 11.7    | 53.2  | 33.0           |           |           |
| 19 | I need to feel eager and excited to learn through the designed activities by the course instructor and the materials used in an ESP class. | No. | 0                 | 2        | 6       | 37    | 49             | 4.41      | High      |
|    |  | %   | 0.0               | 2.1      | 6.4     | 39.4  | 52.1           |           |           |

With reference to learners' psychological needs, a number of 85 nurses comprising 90.4% either strongly agreed or agreed that they need the course instructor to design activities that enhance their self-confidence and self-esteem in an ESP class. 88 nurses (93.6%) reported that they need the instructor to give them constructive feedback and not to discourage them in an ESP class. 82 nurses (87.3%) approved that they need the course instructor to enhance their commitment through giving them reasonable tasks to do on their own or with their classmates. 83 nurses

(88.3%) reported that they need the course instructor and the learning resources to enhance their research skills and learning on their own, 3 disagreed with the statement and 8 were neutral. 81 nurses constituting 86.2% confirmed that they need to feel a sense of belonging to the group of learners and the field in an ESP class. 86 nurses (91.5%) stated that they need to feel eager and excited to learn through the designed activities by the course instructor and the materials used in an ESP class.

Table 6. Environmental needs: Frequencies of questionnaire items (n = 94)

| E) Environmental Needs |  |     | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean rank | Direction |
|------------------------|--|-----|-------------------|----------|---------|-------|----------------|-----------|-----------|
| 20                     | I do not need to feel overstressed in an ESP class though I know that stress is part of the learning process in general.   | No. | 0                 | 3        | 15      | 49    | 27             | 4.06      | High      |
|                        |  | %   | 0.0               | 3.2      | 16.0    | 52.1  | 28.7           |           |           |
| 21                     | I need to see professional attitude and behaviour from my classmates, the course instructor and the employees involved in the enrollment process to feel motivated to learn. | No. | 0                 | 1        | 7       | 48    | 38             | 4.31      | High      |
|                        |  | %   | 0.0               | 1.1      | 7.4     | 51.1  | 40.4           |           |           |
| 22                     | I need the resources used for the course to be provided and practical (e.g., books, place, technologies)   | No. | 0                 | 0        | 11      | 39    | 44             | 4.35      | High      |
|                        |  | %   | 0.0               | 0.0      | 11.7    | 41.5  | 46.8           |           |           |
| 23                     | I need to feel safe and comfortable during the ESP course.   | No. | 0                 | 2        | 6       | 38    | 48             | 4.40      | High      |
|                        |  | %   | 0.0               | 2.1      | 6.4     | 40.4  | 51.1           |           |           |
| 24                     | I need to feel understood and respected in terms of my culture during the ESP course.  | No. | 3                 | 1        | 4       | 37    | 49             | 4.36      | High      |
|                        |  | %   | 3.2               | 1.1      | 4.3     | 39.4  | 52.1           |           |           |
| 25                     | I need to feel empowered and assisted during the ESP course.   | No. | 0                 | 1        | 13      | 38    | 42             | 4.29      | High      |
|                        |  | %   | 0.0               | 1.1      | 13.8    | 40.4  | 44.7           |           |           |
| 26                     | I need the ESP course time to be appropriate to enhance the learning process.  | No. | 1                 | 0        | 4       | 33    | 56             | 4.52      | High      |
|                        |  | %   | 1.1               | 0.0      | 4.3     | 35.1  | 59.6           |           |           |

As regards the environmental needs, out of 94 nurses, 76 nurses representing (80.7%) stated that they do not need to feel overstressed in an ESP class though they know that stress is part of the learning process in general. 86 nurses (91.4%) reported that they need to see professional attitude and behaviour from their classmates, the course instructor and the employees involved in the enrollment process to feel motivated to learn. 83 nurses (88.3%) approved that they need the resources used for the course to be provided

and practical (e.g., books, place, technologies). Additionally, 86 nurses (91.5%) stated that they need to feel safe and comfortable during the ESP course. The same number of nurses approved that they need to feel understood and respected in terms of their culture during the ESP course. 80 nurses representing 85.1% confirmed that they need to feel empowered and assisted during the ESP course. Also, 89 nurses (94.7%) approved that they need the ESP course time to be appropriate to enhance the learning process.

Table 7. Direct questions: Frequencies of questionnaire items (n = 94)

| F) Direct Questions |   |     | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean rank | Direction |
|---------------------|---|-----|-------------------|----------|---------|-------|----------------|-----------|-----------|
| 27                  | I <b>want</b> the course instructor, the material selected and the organization providing the ESP course to consider the cognitive, psychological and environmental needs of the learners along with the linguistic needs.        | No. | 1                 | 0        | 9       | 41    | 43             | 4.33      | High      |
|                     |   | %   | 1.1               | 0.0      | 9.6     | 43.6  | 45.7           |           |           |
| 28                  | I <b>do not want</b> the course instructor, the material selected and the organization providing the ESP course to consider the cognitive, psychological and environmental needs of the learners along with the linguistic needs. | No. | 32                | 38       | 20      | 4     | 0              | 0.96      | Low       |
|                     |   | %   | 34.0              | 40.4     | 21.3    | 4.3   | 0.0            |           |           |

Table 7 presents 2 direct questions to confirm the results of the previous tables. In this endeavor, out of 94 nurses, 84 nurses constituting 89.3% confirmed that they want the course instructor, the material selected and the organization providing the ESP course to consider the cognitive, psychological and environmental needs of the learners along with the linguistic needs, 9 were neutral and the mean score was 4.33. In reverse, 70 nurses comprising 74.4% disapproved that they do not want the course instructor, the material selected and the organization providing the ESP course to consider the cognitive, psychological and environmental needs of the learners along with the linguistic needs, 20 were neutral and the mean score was 0.96.

#### 4. DISCUSSION

As previously mentioned, the researchers conducted an observation process in order to identify learners' needs and categorize them. Following the observation process, the researchers constructed and disseminated a questionnaire in an attempt to confirm the observation results. Based on the data extracted from the observation, then, the questionnaire, the researchers categorized ESP learners' needs into four dimensions: language, cognitive, psychological, and environmental needs associating them to their origin, nature and functioning (see Figure 4).

The language needs in the taxonomy include the pursuit of fluency and accuracy to elevate learners' level of proficiency to the best of their ability and the teacher's ability as well. There has to be a variety of resources and teaching methods that allow the reception and production of language as well. These resources and methods include field-specific well-designed conversation audios, templates of functional

writing (e.g., reports, notes) for the acquisition of vocabulary, field-specific common grammatical forms and familiarity with the type of discourse used in the target domain. In addition, learners need to use the target language for social interaction to be familiarized with their field language. Furthermore, all language needs complete one another as the reception and production of language, the social interaction of the target language, the contextualization and authenticity of language and the identification of genre and discourse are conducive to fluency and accuracy which is always the main aim of any ESP course. This also means that the exclusion of any of the needs will prevent the way to the learner's fluency and accuracy.

In order to make an ESP course engaging, instructors must intellectually challenge learners by stimulating their curiosity, grabbing their focus, and creating assignments that require them to reflect critically, express their thoughts, and use creativity. Additionally, it is critical that the instructor be open and transparent with the students by outlining expectations, the degree of difficulty of the target language items, and how the learners should approach them. However, in order to facilitate learning, educators may employ pictures, videos, or any other kind of audiovisual material to assist students establish the connection between what they see and what they hear (processing). Along with educating them using the ways they prefer, it would also be beneficial to teach them specific strategies that make learning easier and more successful.

The process of learning cannot be successful unless learners are respected, motivated, committed, have sense of belonging and interested. Respect and motivation enhance learners' self-confidence and self-esteem, raise their interest and autonomy and leads finally to commitment. When learners are psychologically comfortable, language learning

becomes effective and autonomous. In terms of the environment, an ESP course can only be successful in the presence of professional behaviour, safety, resources practicality, cultural understanding, cooperation and appropriate organization of the course sections. This occurs through collaborative efforts between the instructor and the stakeholders.

## 5. CONCLUDING REMARKS

The aim of the study was to propose and categorize different types of learners' needs in an ESP course. Briefly demonstrating the study's results, 1) there are 4 types of needs for language learners that can be considered and employed in ESP courses: language, cognitive, psychological, and environmental. 2) In every category, there are items that directly or indirectly serve the language learning process (see Figure 4).

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- Course designing and delivering is either a making or a breaking point in the lives and professions of EFL and ESP learners. It makes them continue their target-language education process or stop it due to its uselessness. The taxonomy of needs for English language learners is a feasible and pragmatic move on the way to design effective activities that combine all sorts of involved elements in the learning process: linguistic, cognitive, psychological and environmental. That is why, prior to designing any activities, syllabus designers, EFL and ESP practitioners have to keep in mind the other skills and circumstances, not just the language, to enhance and increase the willingness of the English language learners to learn (e.g., self-confidence, creativity and cross-cultural understanding). Furthermore, identifying learners' needs through the taxonomy accelerates the target-language learning process as it gives the ESP practitioner an idea about their cognitive and psychological status as well as their abilities to perceive, understand and adapt to the surrounding environment.
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## Appendix A

### Types of Needs Analysis according to Different Researchers.

| No. | Type                                    | Researchers   |
|-----|---|---|
| 1   | <b>Register Analysis</b>                | Peter Strevens, Jack Ewer and John Swales -1960s and 1970s  |
| 2   | <b>Communicative Needs Processor</b>    | Munby (1978)  |
| 3   | <b>Deficiency Analysis</b>              | West (1997); Brindley (1989)  |
| 4   | <b>Learner- Centered Needs Analysis</b> | Nunan (1988)  |
| 5   | <b>Target Situation Analysis</b>        | Hutchinson and Waters (1987)  |
| 6   | <b>Critically Aware Needs Analysis</b>  | Holliday and Cooke (1982); Selinker (1979) and Swales (1990); Tudor (1997); Douglas (2000); Murray and McPherson (2004); Jasso-Aguilar (1995,1998); Carter-Thomas, (2012); Huhta, Vogt & Ulkki (2013) |
| 7   | <b>Right Analysis</b>                   | Benson (1989); Goer (1992); Smoke (1994); Leki (1995); Prior (1995); Spack (1997); Benesch (1999, 2001); Dudley Evans and St. Johns (2001).   |
| 8   | <b>Stakeholder Needs Analysis</b>       | Jass-Aguilar (1999); Long (2005); Cheng (2011); Belcher & Lukkarila (2011); Paltridge & Starfield (2013); Huhta, Vogt & Ulkki (2013)  |

*Adapted from Kothalawala et al. (2015)*

## Appendix B

### Observation Schedule

| Day    | 8:00:00 to 10:00 AM    | 4:00 PM                            | 5:00:00 to 6:30 PM      | 8:30:00 to 10:00PM     |
|--------|------------------------|------------------------------------|-------------------------|------------------------|
| Sat.   | A2 (Elementary)        | Preparation & Administrative tasks | Nurse Aide              | A2 (Elementary)        |
| Sun.   | B1- (Pre-intermediate) |                                    | B2 (Upper-Intermediate) | B1- (Pre-intermediate) |
| Mon.   | B1 (Intermediate)      |                                    | C1                      | B1 (Intermediate)      |
| Tue.   | A2 (Elementary)        |                                    | Nurse Aide              | A2 (Elementary)        |
| Wed.   | B1- (Pre-intermediate) |                                    | B2 (Upper-Intermediate) | B1- (Pre-intermediate) |
| Thurs. | B1 (Intermediate)      |                                    | C1                      | B1 (Intermediate)      |