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IDENTIFYING THE ENGLISH LANGUAGE NEEDS OF HYDRAULICS ENGINEERS: BRIDGING THE GAP BETWEEN ESP ACADEMIC STUDIES AND PROFESSIONAL NEEDS

(Research Article)

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Abstract

The need to use English in diverse professional domains is increasingly growing throughout the world. Therefore, a Needs Analysis approach is deemed wise to design English for Specific Purposes courses that not only cater for students' academic needs but their target professional requirements as well. Accordingly, the present study attempts to identify hydraulics engineers' use of English as well as the skills and competencies they need in their workplace settings. It also aims at reducing the gap that currently exists between academic studies and engineers' needs in professional life. Therefore, data were gathered from 50 engineers working in different hydraulics settings by means of a questionnaire in which both quantitative and qualitative methods were employed. The results demonstrated that the most important language skill for hydraulics engineers is speaking; meanwhile, it constitutes the most problematic aspect in communication. The findings also revealed that the English courses they had at the tertiary level did not succeed in meeting their academic nor professional needs. The study also elicited some suggestions from the participants to make those courses more effective and relevant to hydraulics professional settings in Algeria.

Keywords: English for Specific Purposes, English for Engineering Purposes, Hydraulics engineers, Needs Analysis

Introduction

Along with this era of global communication and information development, the English language has started to play an increasingly important role in different aspects of the world's community such as trade, economics, medicine, science, technology, and so forth. Hence, more and more requirements and demands to learn English have led to the rise of what is, nowadays, known as ESP or English for Specific Purposes.

The role of English as an international language has, indeed, made ESP a growing field in Algeria as it is now taught in almost all Algerian tertiary level institutions to equip graduates with the necessary language skills and competencies they need to meet in the professional world. Many researchers in the field of engineering, for instance, emphasise the significant role of English in the academic and professional fields of engineering (e.g., Basturkman, 1998; Pendergrass et al, 2001; Pritchard & Nasr, 2004; Venkatraman & Prema, 2007). Pendergrass et al. (2001), for example, posit that: "integrating English into engineering, science and math courses is an effective way to improve the performance of engineering students in oral and written communication."(p.1). In fact, *English for Engineering* which is a branch of English for Science and Technology (EST) that belongs to English for Specific Purposes (ESP), is of paramount importance in the career of engineers since it helps engineering students to communicate and co-operate with fieldwork people from different areas of the world. Moreover, engineers need to be able to understand field-related

terminology since almost all field-related articles, books and magazines, are published in the English language. Therefore, ESP teachers have to design courses and select materials that are designed to meet the needs of these 'specific' learners. This can be fulfilled through what is known as Needs Analysis (NA) as MacDonough (1984) asserts: "the idea of analysing the language needs of the learner as a basis to course development has become almost synonymous with ESP" (p.29). Nevertheless, in some ESP Algerian higher educational settings, students' needs as well as the skills and competencies relevant to real-world occupational settings are, unfortunately, not appraised by ESP practitioners. In fact, after graduation, it has been noticed that most engineers' English language proficiency level does not meet the different required professional skills and competencies. Hydraulics engineers are no exception, and like many other engineers of other specialties, they are not proficient enough to use the language effectively. This perceived problem of inconsideration of 'specific' language as well as the skills needed to be fulfilled in that language among engineering indicates that there is a sharp discrepancy between the ESP programs delivered at the academic level and the actual engineers' professional needs.

Therefore, in response to the lack of knowledge regarding the English language needs of hydraulics engineers in Algeria, this study is based on an authentic analysis of hydraulics students' target situation needs. It aims at providing empirical data about the different needs and uses of hydraulics engineering workers of the English language in their field-work settings. It also seeks to make ESP courses more adapted and relevant to students' real-life situations by integrating more effective approaches and methods. This helps in bridging the gap between what is being taught to them and what they actually need in workplaces.

Accordingly, to spell out the need for conducting the present study, the following questions were posited:

1. What are the major skills and competencies hydraulics engineers use in their workplace as far as the English language is concerned?
2. What are the attitudes of hydraulics engineers towards the ESP courses they had at the tertiary level as far as their academic and professional needs are concerned?

2. Literature Review:

2.1. Theoretical Background to ESP

Different interpretations and clarifications of the meaning of ESP have been presented by different researchers. According to Anthony (2015), "English for Specific Purposes (ESP) is an approach to language teaching that targets the current and/or future academic or occupational needs of learners, [and] focuses on the language, skills, discourses, and genres required to address these needs" (p. 2). Hutchinson & Water (1987) consider ESP as an approach, too, "in which all decisions as to content and method are based on the learner's reason for learning" (p.19). In ESP, indeed, the most important goal is not to learn the language for gaining general knowledge, but for gaining proficiency in both academic and professional environments (Basturkmen, 2006). Moreover, Dudley-Evans & St. John (1998) expanded ESP definitions by identifying two ranges of characteristics:

1. Absolute characteristics: a) ESP is designed to meet specific needs of the learners; b) ESP makes use of underlying methodology and activities of the discipline it serves; c) ESP is centred on the language appropriate to those activities.

2. Variable characteristics: (a) ESP may be related or designed for specific disciplines; (b) ESP may use, in specific teaching situations, a different methodology from that of General English; (c) ESP is likely to be designed for adult learners; (d) ESP is designed for

intermediate or advanced students; (e) ESP assume some basic knowledge of the language system, and (f) ESP can be used with beginners (pp.4-5).

The definitions displayed above, thus, emphasise three major facts: the nature of ESP, the purpose of learning ESP, and ESP setting. Besides, ESP designed courses should be learner-centred and match the needs of the learners. In this respect, Basturkmen (2010) asserts that "ESP courses set out to teach the language and communication skills that specific groups of language learners need or will need to function effectively in their disciplines of study, professions or workplaces". (p.17). In the same vein, Huckin & Oslen (1991) (cited in Gupta, 2013) affirm that "[..], if technical people cannot communicate to others what they are doing and why it is important, it is they and their excellent technical skills will be superfluous". (p.131).Thus, it can be inferred that ESP does not only consider English knowledge as General English (GE) does, but the specific areas of study such as science, engineering, medicine, business and so on. Accordingly, ESP has been divided into smaller sub-divisions such as Medical English, Business English, Aviation English and so forth apart from the two major subdivisions of English for academic purposes (EAP) and English for occupational purposes (EOP). In fact, studying and working are the two major domains of ESP as Kennedy & Bolitho (1984) indicate: "EAP is taught generally within educational institutions to students reading English in their studies" (p.4). On the other hand, "EOP is taught in a situation in which learners need to use English as part of their work profession." Nevertheless, Hutchinson & Waters (1987) point out that the distinction between these two sub-branches of ESP is not really evident since "people can work and study simultaneously; it is also likely that in many cases the language learnt for immediate use in a study environment will be used later when the student takes up or returns to a job"(p.16). It is noted, though, that the end purpose of both EAP and EOP is one: employment. Therefore, the purpose of any ESP course is to equip the learners with the language they need to use in workplaces related to their discipline. This means that a needs analysis approach of the learners' professional needs is of great concern in ESP.

2.2 Needs Analysis in ESP

It is an undeniable fact for many researchers that Needs Analysis (NA) is of paramount importance in ESP as it is considered by many researchers as the starting point of any ESP activity. Graves (2000), for instance, defines NA as "an on-going process of gathering information about students' needs and preferences, interpreting the information, and then making course decisions based on the interpretation in order to meet the needs" (P.98). That is to say, identifying the needs of a course at the very first stage of learning can offer a comprehensive road map for designing effective course programs as well as selecting appropriate teaching methods. Moreover, NA highly contributes to "refining and evaluating on-going ESP courses" (Basturkmen, 2010, p. 25). In fact, Needs analysis requires gathering information about the needs of a specific group of learners to help the teacher selects the kind of English he/she teaches. In this respect, Richard (2001) claims that "different types of students have different language needs and what they are taught should be restricted to what they need" (p.28). To this end, Needs Analysis should consist of Present situation analysis (PSA), which seeks to identify the students' English language proficiency level as well as the course language requirements, and Target situation analysis (TSA), aiming at finding out the students' language requirements of the target situation (Robinson, 1991). In the same vein, Dudley-Evans & St. John (1998) pint point that the major concern of ESP is needs analysis in order to equip the learners with communication skills prescribed by either academic or work situation. Similarly, Hutchinson & Waters (1987) noted that "the ESP course design process should proceed by first identifying the target situation and then carrying out a rigorous analysis of the linguistic features of that situation"(p. 12).

In fact, the concept of target needs became of great importance in ESP especially when Munby's Communicative Needs Processor (CNP) was introduced in 1978 as the main concern within the framework of needs analysis turned out to be the learners' purposes of learning the language. In this respect, Hutchinson & Waters (1987) claim: "with the development of the CNP it seemed as if ESP had come of age." (p.54). In fact, Munby's CNP aims at finding out the linguistic form the ESP learner is likely to use in his target working situation. Nevertheless, Hutchinson & Waters point out that Munby's model deals with one perspective only, i.e., that of the analyst, but it does not take into account the students' learning needs, i.e., "what the learners need to do in order to learn" (p.54), nor does it make a distinction between necessities, wants, and lacks. In fact, *target needs* have been classified into necessities "what learners have to know to function effectively in the target situation" (p.55), lacks "the gap between what the learner knows and the necessities" (p.56), and wants "what the learners think they need" (Nation, 2000, p.2). Moreover, Brindley (1989) and Robinson (1991) classified needs as objective and subjective where they considered all factual information about the learners such as language proficiency, language use in real-life situations, and language difficulties as objective needs while cognitive and affective needs of the learner like confidence, attitudes, and expectations as subjective needs.

Nevertheless, Huhta,Vogt, Johnson & Tulkki (2013) argue that the limitations in Munby's model of NA can be avoided throughout following another different model called Task-based NA. This later is considered as the "second generation needs analysis" (Hutha et al., 2013, p. 14). In fact, this recently introduced model focuses mainly on the professional communication needs in a workplace setting rather than the mere linguistic descriptions of the language by making "a focus on discourse, genres and communicative events and a more collaborative, bottom-up, socially engaged approach to needs analysis and course design" (Hutha et al., 2013, p. 4). In other words, Huhta's model focuses primarily on how the individual interacts in fieldwork contexts (Hutha et al., 2013). Therefore, this innovative approach enables the ESP teacher to have a thorough understanding of the professional context of the students' specialty. In fact, identifying professional needs as far as engineering workers are concerned is expected to be of great importance in the ESP teaching and learning process since it enables teachers as well as course developers to design authentic courses.

3. Methodology

The study followed both a quantitative and a qualitative approach to research design to identify the English needs of engineers working in the fields of hydraulics. In fact, "mixed methods research has a unique potential to produce evidence for the validity of research outcomes through the convergence and corroboration of the findings" (Dörnyei, 2007, p. 45). It was carried out at different Algerian hydraulics engineering workplaces (mainly companies and offices) in order to ensure reliability and validity of the data gathered. As for the research participants of this study, they were not randomly selected as they were all graduated from the National Higher School for Hydraulics (NHSH) which is situated in Blida city in Algeria.

The number of engineer participants was 50, both males and females, and they all had more than one year of working experience in the field of hydraulics.

The primary tool of investigation used in this study to collect data was the questionnaire. In fact, questionnaires allow the researchers to get information from a relatively large amount of people over a short period of time. In order to make sure the questionnaire was fully comprehensible, the questions were very carefully constructed to be as clear and direct as possible to avoid any ambiguities. Moreover, the researcher personally visited most of the target workplaces to check the availability of the engineers and to make sure of the clarity of

the questionnaire for them. She also provided an email address and a phone number for online respondents for any explanation they might need. The researcher also explained to all the participants of this study that their responses to the questionnaire are of paramount importance since throughout unveiling their professional needs of the English language, they would contribute to the ESP course adjustments. Besides, the respondents were not required to write their names in the questionnaires to assure greater honesty of their responses.The researcher could collect 30 questionnaires from different hydraulics work settings while the other 20 were collected online via the internet.

The questionnaire used in the present study was divided into four parts: The first part comprised 6 items which aimed at gathering some general background information about the engineer's profile such as gender, age, degree, working position, working experience, and English proficiency level. The second part consisted of 3 questions which sought to identify the importance of the English language as well as its uses in hydraulics field while the third part included 2 items which were designed for the identification of hydraulics engineers' English language needs. The last part of the questionnaire, which included 3 items, was designed to explore the respondents' attitudes towards the ESP courses they had in NHSH and elicit some suggestions for improving those courses. The majority of the items included in the questionnaire were close-ended where the respondents were required to checkmark (√) their choices while a few others were open-ended so that they can express themselves freely.

4. Data Analysis

In order to reach answers to the research questions of the current study, both quantitative and qualitative analyses were followed. The quantitative data were collected through close-ended questions such as multiple choice and Likert-scale items while qualitative data were gathered from open-ended questions used to elicit information from the study participants.

For quantitative data, the frequencies of engineers' responses were calculated and data were analysed descriptively. As for qualitative data, the answers to open-ended questions were grouped and analysed by focusing on the most obtained answers for each choice.

5. Results

Part I: Background Information

According to the data obtained from the questionnaire, the great majority of the participants of this study were males (96%) while only 4% were females. Their ages range from 28 to 35 with 2 to 6 years of working experience in the field of hydraulics. They all possess a hydraulics engineering degree and belong to different major working positions: Sanitation, Water Supply, Hydrology, and irrigation. As it is shown in Figure1 below, most of the respondents (52%) reported that their English proficiency level is low while 34% indicated that they possess an average level. Only 8% opted for "very low" option, and a scarce number of them (6%) revealed that their level is high. However, no respondent opted for "very high" option.

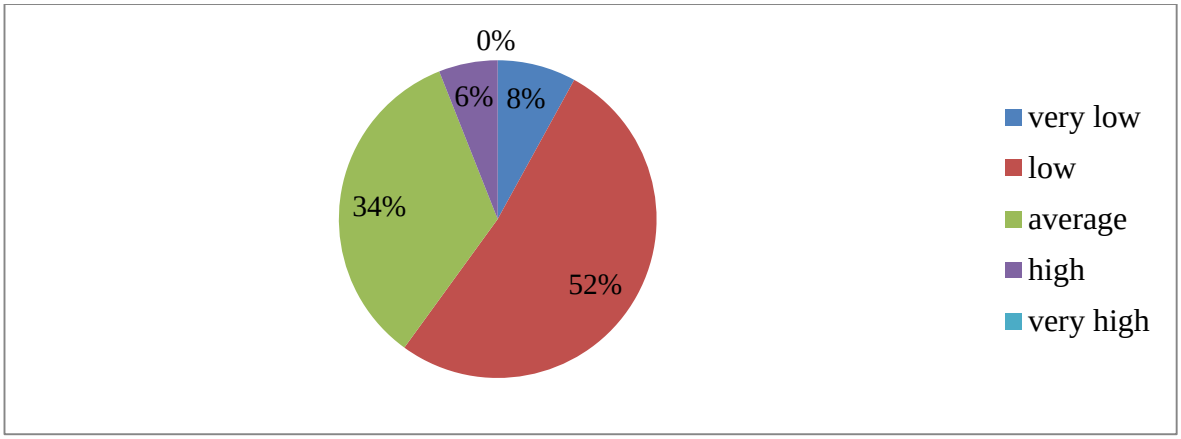

Figure 1. Hydraulics Engineers English Language Proficiency Level

Part II

1. The Usefulness of English for Hydraulics' Engineers Professional Career

Figure 2 indicates that a significant number of hydraulics engineers (58%) believe that English is useful in their field-work while no engineer believes it is not. This emphasises the important role of English in the engineering field. The other choices were almost equally opted for as 22% of the respondents consider it as "very much useful" while 20% perceive it as a "little useful". None of them, however, considers the English language as "not useful at all".

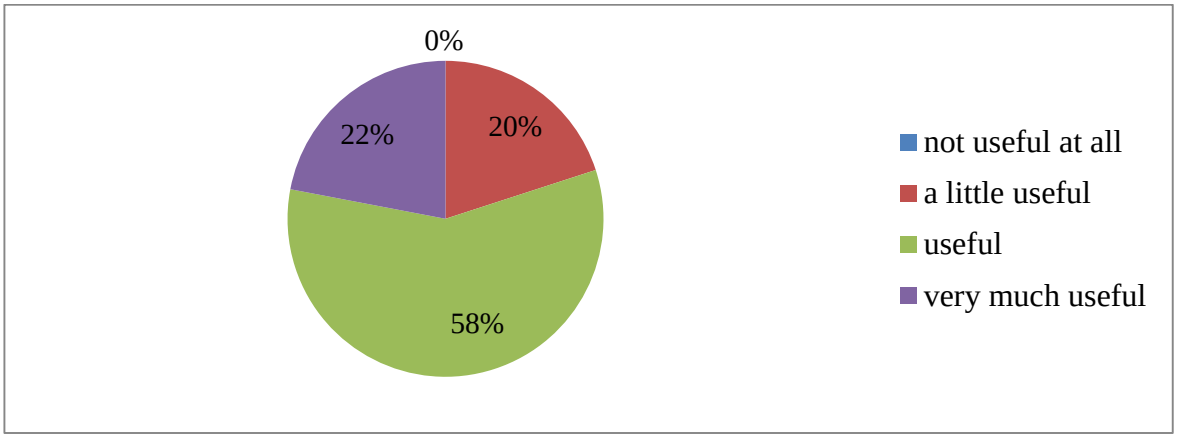

Figure 2. The usefulness of English Language for Hydraulics Engineers

2. The Importance of English Language Skills for Hydraulics Engineers

One can notice in Figure 3 that the great majority of the respondents (64%) ranked speaking skill as the first most useful skill for their specialty. However, there was no great disparity of results between the three other skills of listening, writing and reading. In fact, 14% of the respondents opted for listening as the second important skill followed by writing (12%) and reading (10%) respectively.

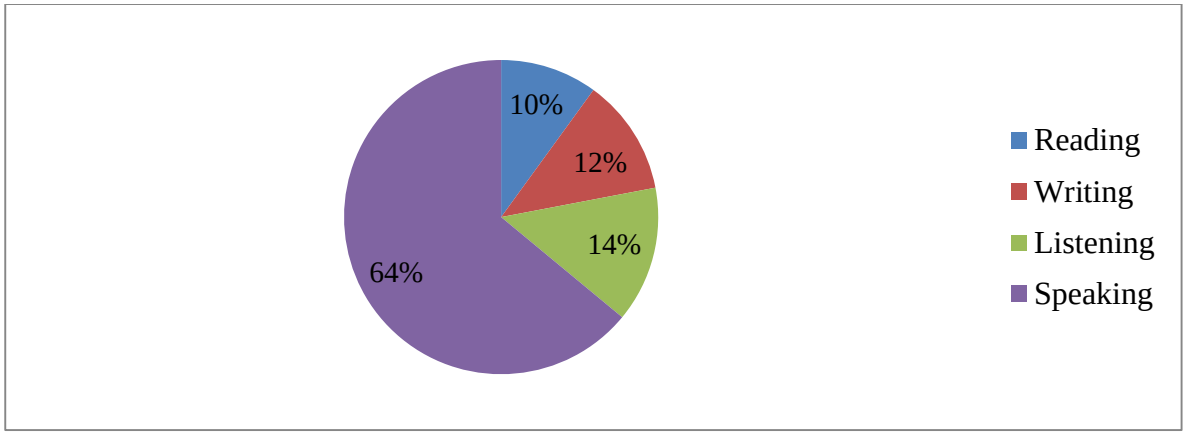

Figure 3. The Importance of the Four Language Skills for Hydraulics Engineers

3. The Use of English Language Skills by Hydraulics Engineers

When being asked about the context (s) in which hydraulics engineers need to use English, the elicited answer provided by each engineer included either one or more uses. However, most of the stated uses were almost alike. In fact, the majority of the respondents' major uses of English language skills are: listening and speaking to foreign engineers/managers/workers or discussing tasks related to their works (82%), presenting projects (oral presentation) (64%), writing projects or reports (52%), reading articles/researches and documents related to the field of their specialty (38%).

PART III

1. The Difficulties/Problems Hydraulics Engineers Encounter when Using English

The great majority of the respondents' answers did indicate that they face many problems/difficulties when using English as far as the four language skills are concerned. According to them, the most important difficulty and problem area is: finding the right expressions as well as the right technical words when speaking to foreigners about field-related topics (64%). Other stated difficulties are: writing and presenting projects (48%) as well as understanding some hydraulics engineering terminology (28%).

2. Determining Hydraulics Engineers' English Language Needs

The hydraulics engineers who participated in this study were provided with a range of skills and sub-skills related to the four language skills (listening, speaking, reading, and writing); they were required to select the option that best expresses their needs for each of the provided subskill. As demonstrated in figure 4, the respondents' 'most needed' sub-skills are in the following successive order: (1) oral presentations of projects (86%), (2) speaking with foreign workers/engineers about field-related subjects (82%), (3) writing projects, reports or brochures (64%), and (4) listening to instructions in real-world situations (60%). Regarding the 'least needed' skills as far as engineers' responses are concerned, the respondents' answers went for one skill which is 'translating documents into English'. As for the other skills of 'using accurate expressions' and 'reading subject-specific documents', the

respondents' answers indicated that they are needed with a percentage that did not exceed 46% for both of them.

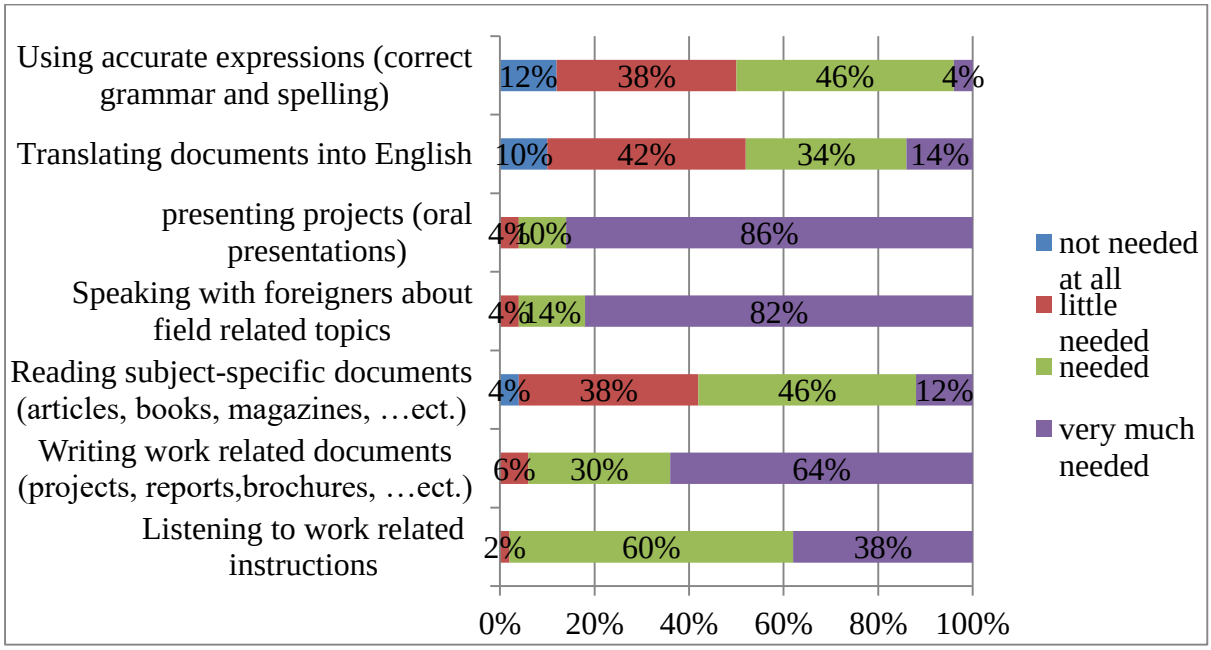

Figure 4. The Skills/Sub-skills Needed for Hydraulics Engineers

3. Evaluation of Hydraulics Engineering ESP Courses

As displayed in figure 5 below, it is quite apparent that the overwhelming majority of hydraulics engineers believe that ESP courses they had in NHSH did little achievement in meeting both their academic as well as professional needs. Not a considerable number of them; however, think that these courses did contribute much to meeting those needs.

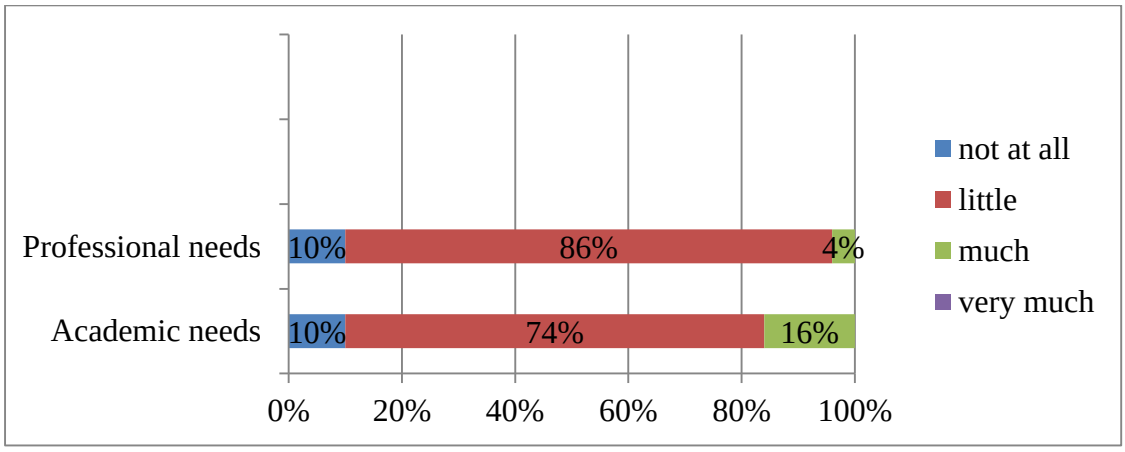

Figure5. ESP Courses Achievement of Engineers' Needs

Finally, when being asked about the suggestions hydraulics engineers may provide for making the ESP course more effective and relevant to their current professional needs, each respondent provided "different" options. Their answers had been grouped as follow:

Table. *Hydraulics engineers' suggestions for Improving ESP courses*

Suggestions	Percentage
More emphasis on speaking skills / Organizing sessions for oral presentations / Discussions of projects or reports	72%
More focus on projects/reports writing	58%
Increasing the teaching hours of ESP courses	46%
Reviewing/reconsideration of ESP teaching methods/approaches	38%

Discussion

This study revealed that the English proficiency level of hydraulics engineers working in different Algerian settings was low although engineers, at both national and international levels, are expected as any other professionals, to communicate effectively in English (Joshi, 2013). Nevertheless, the respondents' responses indicated the usefulness of the English language in the engineering field as highlighted by Reimer (2002).

In fact, hydraulics engineers' uses of English are mainly related to speaking and discussing with foreigners about field-related topics or to oral and written presentations of projects. This explains the reason for ranking the skill of speaking as the most useful skill in hydraulics contexts by the respondents. The second in the rank was listening, followed by reading and writing respectively. This result, however, does not correlate with that of Evans (2010) in which his study revealed that the skills of reading and writing were of the highest importance for working professionals in the services sector of Hong Kong.

Regarding the professional needs of hydraulics engineers as far as the four language skills are concerned, the results of the study indicated again that oral skills associated with presenting projects and speaking with foreigners about field-related subjects are of great need to this category of workers. This is in accordance with Kassim & Ali study (2010) which revealed the importance of English oral communication in the engineering field throughout investigating the workplace needs of Malaysian engineers of chemistry utilizing questionnaires.

As far as the attitudes of hydraulics engineers towards the ESP courses they had during their undergraduate education at NHSH, the negative attitudes the responses expressed indicated the participants' dissatisfaction with the courses. In fact, these courses did not succeed to cater for neither engineers' academic needs nor their professional requirements as the word 'Specific' in ESP aims to. Accordingly, hydraulics engineers called for more focus

on the productive skills of speaking and writing since these two skills help them in improving their oral presentation skills along with the skill of writing projects and reports which are most needed in their profession. Based on these findings, thus, the ESP practitioners as well as course designers should tailor courses in a way that provides students mainly with opportunities to discuss about field-related topics as well as writing projects and reports. More allotted time for ESP classes will also be beneficial.

Conclusion

English as a global language plays a considerable role in the field of science and technology and the field of Engineering is of no exception. Accordingly, this study identified the English language use of 50 hydraulics engineers working in different Algerian settings as well as the major skills and competencies they need to perform in English as far as their field-work is concerned. The overall findings suggest that a great portion of hydraulics engineers expressed a high degree of need for using speaking skills since their great need of the English language at work is to speak with foreigners about field-related topics or to present their projects. These professionals expressed also a considerable need for the skill of writing in order to write projects and other work-related documents. Accordingly, these skills have to be granted more emphasis by ESP teachers when preparing their materials and designing their courses. Another significant finding of this study points out to the dissatisfaction of hydraulics engineers with the English courses they had at the tertiary level. Therefore, their suggestions for improving ESP courses were mainly based on asking for a focus on competencies related to the two language skills speaking and writing respectively since they are the most demanded skills in their profession.

Due to the lack of such studies in the Algerian engineering hydraulics context, the findings of this study may, hopefully, yield useful information for ESP course designers and practitioners to bridge the gap between ESP students' academic needs and hydraulics engineers' professional requirements.

References

Anthony, L. (2015). The Changing Role and Importance of ESP in Asia. *English as a Global Language Education (EaGLE) Journal*, 1, 01–21.

Basturkmen, H. (1998). Refining Procedures: A Needs Analysis Projects at Kuwait University. *English Teaching Forum, 36*(4), 2-9.

Basturkmen, H. (2006). *Ideas and Options in English for Specific Purposes*. London: The University of Auckland: Lawrence Erlbaum.

Basturkmen, H. (2010). *Developing Courses in English for Specific Purposes*. New York: Palgrave Macmillan.

Brindley, G. (1989).The Role of Needs Analysis in Adults ESL Program Design. In Johnson, R. K. (Ed.).*The Second Language Curriculum*, pp. 63-78. Cambridge: Cambridge University Press.

Dörnyei, Z. (2007). *Research Methods in Applied Linguistics: Quantitative, Qualitative and Mixed Methodologies.* Oxford: Oxford University Press.

Dudley-Evans, T., & St. John, M. J. (1998).*Developments in English for specific purposes: A multidisciplinary approach*. Cambridge, England: Cambridge University Press.

Evans, S. (2010). Business as usual: The Use of English in the Professional World in Hong Kong. *English for Specific Purposes*, 29, 153–167.

Graves, K. (2000). *A Framework of Course Development Processes*. In D. R. Hall & A.

Hewings (Eds.), *Innovation in English language teaching* (pp. 179-196). London: Routledge.

Gupta, D. (2013). Teaching English to Engineering Students in India. *Journal of Education and Practice*, 4(11), 131-137.

Huhta, M., K. Vogt, E. Johnson, and H. Tulkki (2013*). Needs Analysis for Language Course Design: A Holistic Approach to ESP*. Cambridge: Cambridge University Press.

Hutchinson, T., and Waters, A. (1987).*English for Specific Purposes*. Cambridge: Cambridge University Press.

Hyland, K. (2006). *English for Academic Purposes*. London: Routledge.

Kassim, H. & Ali, F. (2010). English Communicative Events and Skills Needed at the Workplace: Feedback from the Industry. *English for Specific Purposes*, 29(3), 168-182.

Joshi, D.H. (2013). Importance of English Language for Students of Engineering. *VSRD International Journal of Technical and Non-technical Research*, 4 (3), 51-52.

Kennedy, C. H., & Bolitho, R., (1984). *English for Specific Purposes*. Hong Kong McMillan Publishers LTD.

Nation, P. (2000). "Designing and Improving a Language Course". *Forum*, 38, 2.

Pendergrass, N., Kowalczyk, R., Dowd, J., &Laoulache, R. (2001). Improving First Year Engineering Education. *Journal of Engineering Education.* Retrieved December, 14, 2019 from http://findarticles.com/p/articles/mi_qa3886/is_200101/ai_n8942238

Pritchard, M & Nasr, A. (2004). Improving Reading Performance among Egyptian Engineering Students: Principles and Practices. *English for Specific Purposes, 23*(4), 425–445.

Richards, J.C. (2001). *Curriculum Development in Language Teaching*. Cambridge: Cambridge University Press.

Riemer, Marc J. (2002). English and Communication Skills for the Global Engineer. Global *Journal of Engineering Education,* 6 (1), 91-100.

Robinson, P. (1991). *ESP Today: A Practitioner's Guide*. London: Prentice Hall.

Venkatraman, G. & Prema, P. (2007). English Language Skills for Engineering Students: Needs Survey. *ESP World, 3 (16).*