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THE MERCIFUL

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Degree in teaching English as a foreign language

**English Language Needs of Iranian EAP Students of Chemistry:
Perceived Needs and Problematic Areas**

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Dedication

I dedicate this thesis to my husband, Ali, with all my love, admiration and respect for his great capacity, support and understanding, that with his special wisdom strengthens my soul, life and heart.

F.R

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¹ Holy Quran, Naml (27), Verse 40.

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List of abbreviations

BE	Business English
EAP	English for Academic Purpose
EBP	English for Business Purpose
EFL	English as a Foreign Language
EGAP	English for General Academic Purpose
ELT	English Language Teaching
EMP	English for Medical Purpose
ENP	English for No Purpose
EOP	English for Occupational Purpose
ESAP	English for Specific Academic Purpose
ESL	English as a Second Language
ESP	English for Specific Purpose
EST	English for Science and Technology
FL	Foreign Language
GE	General English
LSP	Language for Specific Purpose
MA	Master of Arts
NA	Needs Analysis
PH.D	Doctor of Philosophy
PAQ	Problematic Area Questionnaire
SL	Second Language
TEFL	Teaching English as a Foreign Language
TENOR	Teaching English for No Reason

Abstract

Needs specification and analysis are important factors to be explored and discussed in language teaching program, in particular, in EAP (English for Academic Purposes) and ESP (English for Specific Purposes) programs. As such, an EAP program should be built on both investigating the learners' needs and considering the problematic areas these learners experience. Therefore, conducting a systematic needs analysis and assessing the problematic areas from students' and instructors' perspectives are essential where English is used for academic purposes. This research addresses the ongoing analysis of Chemistry students' perceptions of their needs, lacks and deficiencies in learning English and also makes benefit from Chemistry graduates' and their English language instructors' views in this regard. For such aims, this study applied a combination of qualitative and quantitative method through triangulation of data sources and collection techniques. The first phase in conducting the study was to observe different EAP classes at different universities in Iran. The second was to conduct unstructured oral interviews with both students and instructors. The third stage was the process of data collection through the questionnaires that formed one of the main instruments of the research. This instrument was made on the basis of the existing literature, the present observation and conducted interviews. 120 Chemistry students and 20 instructors at the Chemistry Colleges of Guilan and Tehran, and chemistry and engineering Research center of Iran answered this questionnaire which asked them about their English language skills necessities and their problematic areas. The students' responses were then compared with each other and with those of 20 English language professors' ones to examine the degree of agreement between the groups. Next, a sample of chemistry participants were interviewed to confirm the responses to the questionnaires and provide the researcher much more genuine information. Findings obtained from all respondents showed that in terms of academic studies and future works, English is perceived as very important. The students, similar to the instructors, ranked reading as highest skill when degree of skills importance comes into play. They also rated vocabulary and reading speed as the main and writing skill as the least importance area for their studies. All in all, regarding the difficulties, lacks and deficiencies, the majority of students ranked the following highly important: low level of language proficiency, limited vocabulary, slow reading speed, poor reading comprehension, poor speaking ability, boring classes, low English proficiency of instructors, teacher-centered classes, lack of student involvement and participation in classroom. While teachers considered poor writing ability, and low content knowledge of instructors as the other two difficult areas, students considered slow reading speed, poor speaking ability, boring classes, and low English proficiency of instructors. Besides, instructors did not perceive low English proficiency of instructors in EAP classes to be as highly important as students with a significant difference between the two groups. Similarly, students' ranking of boring classes and poor speaking ability as problematic issues was significantly higher than instructors' ranking. When they asked to suggest any EAP curriculum they feel as useful and productive, the majority of respondents suggested a curriculum that offers General English in the first term and three following years of consecutive specific English course. The study has implications for improvement of EAP language courses in university instruction, for the progress of the students' English ability, and for meeting their academic and particular needs.

Key words: English for specific purpose, English for academic purpose, Need analysis, Problematic areas, Chemistry



CHAPTER ONE



Introduction

1.1.introduction

From the program designing perspective, English language teaching experts have often focused on the learners' needs. In doing so, they especially have explored the learners' reasons for learning English language. Nowadays, these reasons have appeared to move from general into the direction of English for specific purpose. (ESP or the acronym for "English for Specific Purposes"). ESP was distinguished as one of the most noticeable activities and vital movement within teaching of English as a foreign or second language by 1960s (Swales, 2009; Busturkmen, 2006; Flowerdew & Peacock, 2001; Garcia & Maria, 2000; Dudley-Evans & St. John, 1998; Hutchinson & Waters, 1987; Robinson, 1980). ESP raises the role of language courses or program instructions whose content and aims are fixed by the specific needs of the particular learners (e.g., English for science and technology).

Moreover, ESP refers to a natural but powerful trend which has spread over the world and is still continuing with more authority and effects. Therefore, in recent decades people have generally attempted to learn English for either professional or educational purposes as opposed to learning English for pleasure or prestige. Specifications of learners' purposes for learning English have necessitated the development of new approaches and techniques in ELT. English for Specific Purposes is one of these approaches and uses needs analysis as the basis of curriculum development. ESP originated from the traditional current of TEFL/TESL and has progressively set itself up as a separate new movement influencing the whole English teaching/learning process.

In other words, ESP is an approach that uses information obtained from needs assessment as the foundation for curriculum development and it differs from general English in terms of factors such as 'the students themselves', 'the nature of students' needs', 'the instructional objectives', and 'the syllabi'. If it is acknowledged that language learners have different purposes for learning the language, the importance of identifying the needs of language learners can be clearly understood. The needs of language learners can be significantly identified by needs assessment process.

Brown (1995) defines needs assessment as a process of gathering information through various activities and from different groups of informants to determine the learning needs of a particular group of students. After analyzing these needs, an appropriate curriculum can be developed. Emphatically, as an integral part of the ESP

Program, needs assessment is defined by Jordan (1997) as the process of not only identifying what learners require in a language but also arranging these needs according to the priorities of the learners. Similarly, Hutchinson and Waters (1987) defined ESP as “an approach to language teaching in which all decisions as to content and method are based on learners’ reason for learning”. (p.19)

Assessing these reasons or needs from the individual learner's perspective is an important part of any ESP instructional program design and it can benefit both teachers and students alike (Lytle, 1988). Purpura and King (2003), and Santopietro and Peyton (1991) argued that ESP needs assessment should be taken as a process of collecting and analyzing the required information about the ‘Target language needs’ of the learners. Such a process, they believe, helps to find out whether the program's objectives and the students' requirements are being achieved, to plan for the students' directions, and to make informed decisions. In this regard Eslami-Rasekh (2010) acknowledged that the unifying feature of any EAP course is to use learners' functional needs in the target language for the purpose of defining the objectives and content of each course as well as for defining how the students are expected to perform in conforming to the norms and conventions of their academic disciplines.

Dudley-Evans and St. John (1998) point out that needs analysis can be considered as the cornerstone of ESP. A needs analysis is generally used to define the objectives and goals of a course, which is the first step of developing a curriculum. This step is followed by materials selection, syllabus design, and assessment. A needs assessment offers useful sources of data when designing a course syllabus and is therefore beneficial to learners.

Along with this needs assessment or needs analysis, comes the conceptualization of learners’ problematic areas. Learners, in fact, should have the power not only to perceive their English needs and requirements on the one hand, but also to recognize their deficiencies and limitations in overcoming problematic issues, on the other hand.

In case of learners’ and teachers’ perceptions of problematic areas, learners’ perceived needs should be studied in a context like Iran where English is taught and learnt as a foreign language. Furthermore, looking from the perspective of 20th century the technological and social changes, it becomes apparent that the focus of language teaching

has shifted from the nature of 'the language' to 'the learner', and the learner is seen at the center of the learning and teaching process (Jordan, 1997; Nunan, 1988; Hutchinson & Waters, 1987; Richterich & Chancerel, 1977; Brown, 1995). Hence, considering the status of both English as an international language and the advancements made in technology over the recent years, a worldwide increase in demand for ESP and EAP courses varying in length and the mode of instruction becomes revealing (Jordan, 1997). In such a vein, an understanding of the needs of Iranian students is seriously needed in order to aid Iranian EFL (English as a foreign language) teachers to make decisions about what to teach and how best to implement the pedagogical-driven choices in ESP/EAP courses in this EFL contexts.

As an important academic university discipline where students have proven to be in great need of English, chemistry was targeted by the present research, and these EAP students need English not only for their English courses and learning objectives at undergraduate levels but for a number of academic international papers, they are supposed to develop from their research.(i.e. very good record of international ISC and ISI-indexed papers is evidence for such a claim).

This study thus tends to explore the needs of language use of Iranian chemistry students from the perspectives of four involved groups: currently enrolled students, and English instructors, former students, and current employers of the former students. The results of the study may be used to develop a more appropriate curriculum, including the designing of syllabi to meet students' newly identified needs, and choosing materials that better complement new course goals and objectives, and their problematic areas which they faced as a hindrance for EAP courses. Also, students perceptions of their needs and area of difficulties and their instructors' perceptions of their students' needs and deficiencies will help to understand whether there is a correspondence between these needs and area of problems and what is qualified in EAP courses.

1.2.Statement of the problem

Ideally one can find a range of domains which specialists enter in generating various branches of ESP. Obviously, one of these well-known branches is English for academic purpose (EAP)