

## **Challenges and Predicaments in Teaching “English for Science” in an ESP Classroom: A Research Study to Pinpoint Problems and Solutions**

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**ABSTRACT:** *The age-old methods of English Language Teaching (ELT) have been taken over by new approaches of language teaching which quest for relevance and reality in a language. This quest and the demand for novel trends give rise to the English for Specific Purpose (ESP). ESP is an approach to delivering content knowledge and equipping the learners to perform effectively in a target situation. This study aims to investigate the challenges and the obstacles in the English for Science classroom at King Khalid University (KKU), Abha, Kingdom of Saudi Arabia (KSA). This paper explains the historical overview of ESP and suitable methods of teaching ESP courses. A quantitative research methodology has been applied to obtain data from 20 English language teachers who have been teaching English for Science for the past five years or more on different Science campuses at KKU. The detailed analysis of the data reveals that there are numerous crises and issues faced by the ESP teachers. The most common of them is motivation on the part of the students, constructive prerequisite courses, lack of learning skills, and an interactive classroom. The researchers have explored these challenges in detail and finally suggested some guidelines to overcome the crises.*

**KEYWORDS:** ESP, English for Science, students’ motivation, professional English, teaching techniques.

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### **INTRODUCTION**

At present, the Globalisation activity has made the English language a universally accepted mode of communication, and a Global Lingua Franca. Gaining English language proficiency has become a

prerequisite element for science students as the English Language is the prime choice in the field of Science, Technology, and Research. Due to this elevating demand for English Language learning for a required field or profession, the teaching of English has shifted its focus from English as a Second Language (ESL)/English as a Foreign Language (EFL) to the teaching of ESP. Though the movement of ESP originated in the 1960s, currently this language teaching and learning method is much in demand and is in practice in most academic institutions. The key feature of the ESP course is the context in which the language is used, and the emphasis is on how the language is utilized in real-life communication. Due to the rising demand of the global economy and academic settings, the significance of English language learning has expanded intensively in EFL-speaking countries. Even the universities and higher education institutions in Saudi Arabia are not an exception. Most Universities are delivering ESP courses to their undergraduate and post-graduate students to accomplish realistic communicative goals in relevant areas. At King Khalid University, Abha Saudi Arabia the various Science Colleges have the ESP program named 'English for Science' at the undergraduate level. The students pursuing a bachelor's degree in science take this course at the second level of their Bachelor's program. This course consists of writing research proposals, applying for research, publishing a research paper and searching a relevant journal, etc. The scientific terminology is explained through various language symbols. The four skills of the English Language are incorporated with scientific vocabulary. This course is designed keeping in view the practical scientific fields of the students in which they will pursue their careers at a later stage. As science students need to write research proposals to universities for higher studies, so this course guides them to inculcate a sense of understanding in searching for a research topic and writing it effectively. The purpose of this research is to explore the efficacy of this English for Science course and to throw light on the challenges and crises in the language classroom through the language teacher's feedback. According to the authors, the real challenges faced by the language teachers inside an ESP classroom needs immediate attention and require a relevant solution. The framework of the paper includes a detailed background study, objectives, and significance of the research and research methodology. After the analysis of the data, the challenges and the issues of the ESP classroom are elucidated. Finally, some recommendations are advocated by the researchers to deal with the crisis in the ESP classroom.

### **Origin and Definition of ESP**

ESP movement is an outcome of several converging trends. The three principal reasons behind the emergence of the ESP approach are the demand for a brave new world, a revolution in Linguistics, and the focus on the learners. According to Hutchinson and Waters, the end of the Second World War and the oil crisis of early 1970 have resulted in western money and knowledge flowing into the oil-rich countries. The language of this knowledge was none other than English. These developments put forward a demand on the language teaching professional to provide people with the required goods. English teaching became "subject to the wishes, needs and demands of people other than language teachers" (Hutchinson & Waters 1987:7). Earlier traditional Linguistic aimed to describe the rules of language usage, i.e. grammar, but the new studies shifted their focus on novel ideas through which language can be used in real communication (Widdowson, 1978). This new shift gave birth to ESP. The final reason Hutchinson and Waters (1987) mentioned for the emergence of ESP is educational psychology. It points out that it is not only the

techniques of language instructions that are important, but learners' needs and motivation are also significant. While learning, learners involve their strategy, use various skills and artistry, and get motivated by different target situations. Hence a language classroom must be learner-centered.

Hutchinson and Waters (1987) said ESP like any other form of language teaching is mainly concerned with learning. It focuses on the question of what people learn rather than the question of how they learn. It can be briefed that ESP is a learner-centred approach. Hutchinson and Waters (1987:19) further mentioned that 'ESP must be seen as an 'approach', not a 'product'. ESP is not a particular kind of methodology, nor does it consist of a particular type of teaching material'. Hutchinson and Waters (1987:19) defined ESP as 'an approach to language teaching in which all decisions as to content and method are based on learner's reason for learning'. Robinson (1991) viewed that in ESP courses the needs and demands of learners are the prime factors. Robinson's definition of ESP is based on two defining strategies which are common to ESP. These strategies are that ESP is generally goal-directed and ESP courses are based on need analysis, which tries to point out what the learner will do after learning the language.

According to Belcher (2004), ESP is an attempt to help learners accomplish their academic and occupational needs and goals. Hardings (2007:8) asserted that 'ESP teaches the language for getting things done.' ESP teaches the language; a learner requires to reach the defined goals.

Singh (2008:82) defined the form of ESP teaching as: 'ESP does include all English classes which attempt to prepare the learner to use the particular portion of English language necessary to carry out a specific task'. ESP also makes learners use English as a foreign language in communicating and cooperating with others in the professional field and in real-life situations. According to Helsvig (2012), ESP focuses on developing students' communication competencies based on the learners' professional area of specialization. It contains specific schemes which are designed to develop the communicative use of English in each field of science, work, or technology. Different researchers and language experts defined ESP in numerous ways. So, from the above discussion, it can be inferred that ESP is a learner-centred approach and aims to teach English with specific content which allows the learners to converse in a target situation.

While explaining ESP, it's significant to know the difference between ESP and English for General Purpose (EGP). EGP is the "common core" English used by all native and non-native speakers and is taught in ESL or EFL classrooms whereas ESP is taught to special target groups. Differentiating EGP and ESP Hutchinson and Waters (1987:53) commented that, 'in theory nothing, in practice a great deal'.

Widdowson (1983) argued, it cannot be said that ESP is more specific as compared to other general English courses. The variation is that in ESP the prime aim is to prepare the students to achieve 'restricted competence'. ESP is based on certain 'objectives' which are more specific and shorter whereas EGP is based on 'aims' which are wider and abstract (Widdowson 1983:6-7).EGP emphasizes the teaching of

grammar and basic vocabulary but ESP focuses on teaching grammar, pronunciation, and words in a specialized field. ESP is broadly divided into two branches: English for Academic purposes (EAP) and English for Occupational Purposes (EOP). EOP is taught to those who will use their knowledge of the English language in a specific profession whereas EAP is taught in academic institutions to students who require English in their specialized field of studies. The language covers a particular discipline of higher education that the learner is studying or will study in the future.

The teaching of vocabulary is a key issue of ESP courses because Linguistic features and lexical items vary with the variation in the context of language use. So, in ESP vocabulary learning is an important factor and an ESP curriculum must deal with vocabulary learning tasks, keeping in view the needs of the learners. Over time ESP has established more as a field of study and gained popularity within the higher education system and among language researchers.

## **METHODS OF TEACHING ESP**

In ESP, Needs Analysis determines which language skills are most needed by the learners, and the whole curriculum is focused on that skill. Even though there is no set methodology for teaching ESP that is applicable in all situations, Needs Analysis is an essential part of ESP course design. In a particular situation, the individual need of learners belonging to a particular area gives rise to a certain methodology of teaching. It is one of the essential elements on the part of the ESP course developer or instructor to adopt an effective methodology to teach his or her group of learners. While talking of ESP teaching methodology it is an injustice without mentioning the Communicative Language Teaching (CLT) movement. The prime concern of ESP and CLT approaches are the same. As mentioned by Munby (1978) ESP courses are those where syllabus and materials are determined in all essentials by the prior analysis of the communication needs of the learner. In an ESP classroom, the result of the course is very significant. CLT method emphasizes language use than the rules which enables the learners to perform effectively in a target situation. CLT methodology is learner-centred and task oriented, hence applying it in the ESP classroom helps accomplish the aims easily and accurately. Dudley-Evans and St. John (1998) commented that ESP methodology makes the use of tasks and activities reflecting students' specialist areas. Basturkmen (2006) is of the view that the methodology of teaching ESP is organized around the concepts of input and output strategies. Input-based strategies are centred on the idea that learning primarily occurs through exposure to language input in the form of written or spoken texts or language descriptions. Multiple exposures to comprehensible input facilitate effective language learning. After noticing the linguistic features repeatedly, the learners become more familiar with the forms and features of a language. Along with linguistic accuracy, the learners are also able to develop their fluency and communicative skills. Input-based strategy is quite fruitful for a target group and helps the ESP students enhance their language skills in a particular discipline. Output-based strategies help the learners to communicate in the target language. There are two subcategories of output-based strategies. First, predominantly output is based on the idea that language (producing output) is sufficient for learning and the second (output to

input) is based on students' output followed by some form of input (Basturkmen, 2006). It is a task-based strategy and students learn the language while performing the task in a real-life situation.

### **Background of the study**

**Statement of Intent:** With the growing demand for globalization English has become the language of higher academic and professional stature. Different Universities in the Kingdom have included ESP in the course curriculum at the undergraduate or post-graduate level. However, these ESP programs are arbitrary, lack proper course objectives, suitable course content, and hardly reflect the needs of the learners, which finally leads to numerous crises in the language classroom. The undergraduate students who join these ESP programs come with a low or average proficiency level of General English and lack linguistics skills. Finally, the language instructors are also not professionally equipped to teach ESP.

**Objectives of the study:** The prime aim of this study is to assess the challenges and the shortcomings of an ESP classroom. This research, questions the issues related to course design, communicative practices, the learners' behaviour, and challenges faced by the instructor.

**Significance of the study:** This study helps identify and evaluate the crisis of an ESP classroom, which later helps improve the ESP course curriculum. It further helps the teacher to make the class more effective and goal-oriented. The authors' experience in teaching this ESP course has made this research more pragmatic and natural.

### **METHOD AND PROCEDURE**

It is a quantitative research that employed a Likert Scale questionnaire to collect data from the instructors of King Khalid University, Abha, Saudi Arabia, who are currently teaching and have been teaching the ESP course to the science students. The data is collected from 20 ESP instructors, through the google questionnaire form. The authenticity of the data is maintained by oral communication with the instructors before submission to the google form. The collected data is coded according to the analysis requirements. The SPSS software version 2.5 is used to analyze the collected data. After finding out the statistics of the data, a reliability analysis (Cronbach's Alpha) is also done at the end to prove the internal consistency, based on the average inter-item correlation.

The following codes are used for the Likert Scale:

Strongly Disagree (1), Disagree (2), Can't Say (3), Agree (4), Strongly Agree (5)

### **Analysis and Discussion:**

In the questionnaire form, the challenges, and hindrances in teaching an ESP course are asked by the instructors. These problems originate from the students, instructors, and the curriculum. Keeping in view these three factors (students, instructors, and curriculum) this form is created and after the data analysis,

the opinion of the instructors proves that the weightage goes to the major challenge related to the curriculum and the students. As in table 1, the mean of each factor is calculated. The highest mean value (4.25) goes to the two reasons or factors responsible for the challenges faced by the instructors in an ESP classroom. These two reasons are:

- Lack of motivation on the part of the students
- Difficulties faced by the students to understand the prescribed topics.

The first one is related to the student's attitude towards the course and the second one is related to the curriculum, designed without keeping in mind the difficulty level of the students.

The second major issues (mean 4.05), raised by the instructors are:

- Lack of prerequisite courses for the students
- Students lack dictionary skills to understand scientific vocabulary.

Then another factor having a mean value of 4.0 is highlighted by the instructors: large classrooms that arise as a challenge for the instructors to manage their ESP course effectively.

Later on, other factors are voted respectively, they are:

- Lack of student-teacher interaction
- Lack of facilities on the campus
- Provided course material is not relevant and easy
- The course specification lacks appropriate methodology
- The numbers of allotted contact hours are less.

In the end, the instructors have given the same opinion with the mean value of 3.4 to the two factors that are:

- Teachers find the course terminology difficult
- The course objectives are not clear to the teachers.

The overall analysis shows that the instructors agree on all the three major categories related to the teaching ESP courses and have highlighted the first category that is related to the prescribed course or curriculum. The second category highlighted by the instructors is related to the students. The third category related to the course teacher comes in the end. Here it can be assumed that the instructors may choose the third category partially as it is related to their community. But the idea that has formed the hypothesis of multiple challenges faced by the ESP instructors is favoured collectively by all the participants and the degree of choice involving various factors is clear in Table: 1 below.

**Table 1. The instructor's response towards the various categories related to teaching of ESP, and the mean value of each factor.****Descriptive Statistics:**

	N	Minimum	Maximum	Mean	Std. Deviation
The course material provided to teach is difficult and of advanced level	20	1.00	5.00	3.8500	1.26803
The course specification lacks appropriate methodology to teach specialized English	20	1.00	5.00	3.6500	1.18210
Number of contact hours allotted for the course is quite less.	20	1.00	5.00	3.5500	1.19097
The size of the classrooms makes it difficult to carry out lectures effectively.	20	1.00	5.00	4.0000	1.29777
Lack of Student-Teacher interaction	20	1.00	5.00	3.9500	.88704
Lack of prerequisite courses	20	1.00	5.00	4.0500	1.14593
Lack of Motivation, on part of the students is very challenging for the teachers.	20	3.00	5.00	4.2500	.63867
Students find it tough to understand scientific topics as they are not familiar to them previously.	20	1.00	5.00	4.2500	.96655
Students lack Dictionary skills to differentiate between Scientific English vocabulary and General English vocabulary	20	1.00	5.00	4.0500	.94451
Teachers face problems in understanding specialized terminology.	20	1.00	5.00	3.4000	1.35336
Instructors find the course challenging because course objectives are not clear.	20	1.00	5.00	3.4000	1.14248
Lack of facilities (language lab, audio and video CDs, internet access etc.) inside campus and classroom	20	1.00	5.00	3.9000	1.07115
Valid N (listwise)	20				

**Table 2. Summary of the data: Listwise deletion based on all variables in the procedure.**

Case Processing Summary			
		N	%
Cases	Valid	20	100.0
	Excluded <sup>a</sup>	0	.0
	Total	20	100.0

**Table 3. Reliability Statistics.**

Reliability Statistics	
Alpha	N of Items
.938	12

The above reliability analysis in **Tables 2 and 3** are performed in SPSS and **Table 2** shows the data that is 100 percent utilized and nothing is missing. **Table 3** indicates the value of the Cronbach's Alpha which is 0.938. The benchmark for Cronbach's Alpha is equal to or more than 0.7. So, the results of the reliability analysis show that the instruments used for the data analysis are reliable.

### Recommendations for ESP teachers

From the research findings, it can be inferred that ESP teachers face multiple issues in an ESP classroom that hinders teaching and learning. To buoy up students' motivation and interest, some engaging and stimulating teaching strategies must be ensured. The ESP course is specifically designed to meet the targets of the learners in a particular field, so a teacher must employ a suitable method to teach English. The basics to attain favourable outcomes in an ESP classroom are constructive planning; learners need assessment, and rigorous monitoring. Students must be equipped with the basics of the English language to take an ESP class, some warm-up sessions should be conducted to identify their goals, improve their proficiency level and develop their knowledge of dictionary skills. Course curriculum must extend the contact hours to carry forward extensive activities. The teachers must choose a student-centred approach to teaching and use some fun language learning activities to sustain the interests and motivations of the students. Some critical thinking strategies should be employed to ensure the maximum engagement of the students. The choice of course material should be done carefully to meet the specific needs of the learners. It is suggested that the teachers can develop their authentic materials in addition to the textbooks to make learning more beneficial. ESP curriculum should be modified and amplified based on a real-life situation. Finally, the teachers' training program should be more persistent to enhance the teaching policy and help the teacher use ingenious teaching strategies. While designing ESP courses one should follow the



strategies discussed above, but it cannot be ignored that an effective and flexible course design can only be derived from the teachers' practical experimental knowledge and students themselves.

## CONCLUSION

This research has not only highlighted the common and prominent issues faced by the teachers in teaching an ESP course but also offered some important suggestions. This study is helpful for all the teachers of ESP courses taught globally. The first and foremost purpose of the authors was to jump into the arena of a challenging ESP course and address the common issues faced by the teachers of this course. The authors have realized that ESP teachers have been utilising their experience and teaching skills for years and yet there was a need to highlight the hidden obstacles while teaching this specific course. This ESP course is well designed and the teachers of this course found it helpful and vital for the science students. The difficulties lie in the lack of course- prerequisites, classroom sizes, and students' behaviour towards this specific course. The teachers from all over the world, who teach different ESP courses in their universities, will have experienced the same issues. This specific ESP course needs to be revised and the course structure should be based on keeping in view the difficulty level of the students. The best thing to do is to provide ample preliminary material and guidelines before starting this course. The responsibility of the teachers is to realize the significance of this course and devise certain techniques to facilitate the students in comprehending this course.

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