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# Analyzing English Language Learning Needs among Students in Aviation Training Program

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## Abstract

Needs analysis is a major point to consider in English for Specific Purposes (ESP) courses for syllabus design and materials development. The purpose of this study was to find the present and future English language needs of the students in Aviation Training Program for ESP courses. The methods used in this research to investigate the needs of the learners were both quantitative and qualitative. The instruments of the study were a questionnaire based on a Likert-scale, structured interview and semi-structured interview. The result of the study showed the needs and the problems of the students. It also provided valuable implications for curriculum developers.

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*Keywords:* Needs Analysis; Triangulation; ESP; Likert-scale; Structured Interview

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## 1. Introduction

English language plays a very crucial role as the predominant tool for communication in the global community. English language is the universal lingua franca. Twentieth century led to a world of international relations with respect to different aspects of communication: sharing information through science and technology, communicating through commercial activities and also travelling in the world for different reasons. The essential need came up to be an international language. English language gained its popularity and quality among different languages by heading science, commerce and technology.

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English as the language of worldwide communication and commercial exchange is being looked on as one of the most useful subjects in the curriculum. Attempts have been made to devise the most efficient ways of learning and teaching English.

Rodgers (1969 as cited in Hutchinson & Waters, 1987) expressed that “developments in educational psychology also contributed to the rise of ESP by emphasizing the central importance of the learners and their attitudes to learning”. According to Hutchinson and waters (1987) different learners have different interest and needs, that have an important influence on their motivation to learn and therefore on the effectiveness of their learning. These needs support the development of the courses in which relevance to learners' needs and interests were of great importance.

“Within ESP the definitions of needs and needs analysis have broadened with experience and research. In 1960s and early in 1970s, literature and language trained English teachers, faced with teaching science students English for their subject studies” (Dudly-Evans & St. John, 1998, p.122).

### **1.1 Review of the related literature**

Needs analysis affects the individuals' educational life at the time of studying and their future life regarding their future careers and affairs. Those who are responsible for providing the English courses for the students should be aware of the possibility of some future needs of the learners too.

“Needs analysis refers to procedures for gathering information about learners and about communication tasks for use in syllabus design” (Nunan, 1998, p. 75). Needs analysis is the first step carried out before a course so that a course outline, materials and other resources can be in place before teaching begins.

Munby's (1978) model, established wants and needs of the learners by investigating their target needs and situations for which they were being ready. Munby's model clearly established the place of needs, wants and desires as central to ESP, indeed the first step in materials or course design.

Mackay and Mountford (1978) stated that all language teaching should be designed for the specific learning and specific purposes of identified groups of student” Thus a systematic analysis of these specific learning needs and language use purposes (communication needs) is a pre-requisite for making the content of a language program relevant to the learners' needs.

Needs analysis is more crucial in ESP courses. ESP courses should be closely related to the field in which students are being trained. As the name speaks, ESPs are defined to include specific parts of language, which a specific group of learners needs to know in order to perform appropriately in the according context.

This aspect of ESP courses is more noteworthy when these courses are offered at English for Academic Purposes (EAP) or English for Occupational Purposes (EOP) regarding the particular domain of knowledge which the students are expected to master during their academic life. To attain the linguistic needs of the student there must be some familiarity with the end goals of the students in relation to their academic and communicative life and the researcher or syllabus designer should try to assess their needs according to these purposes (Owolabi, 2012).

The ideal condition seems to be preparing a single syllabus and ESP course for every single purpose. This is due to the specific needs of the students who differ according to the purpose they are studying and the course they are taking. Unfortunately, this is not what is common in today's universities and colleges: in some of them, no formal needs analysis has been conducted. There are some researches on needs analysis in the English for Specific Purposes, Jasso-Aguilar (1999), who worked on the maids of Waikiki Hotel or Cowling's recent study of the needs of the workers in a Japanese company (Cowling, 2007).

Jasso-Aguilar (1999) analyzed the vocational English language needs of Waikiki hotel maids and used qualitative methods including unstructured interviews, observation, and questionnaires. In this study sources were maids, supervisors, housekeeper, and a human resources staff. Triangulated method and sources determined reliability. The researcher found the conclusion of a wider range of voices in needs assessment.

Cowling 2007 studied needs analysis to develop English language courses at a Japanese industrial firm. The researcher validated the results by multiple methods and sources. Conclusion of this research showed that course and syllabus design are very important and need more care and thought.

The purpose of this study was to investigate the perceived needs of the pilot students in Aviation Training Center and according to the outcome of the study to present a comprehensive curriculum that meets the needs of these students.

## **2. Methodology**

The research reported here is study of needs analysis of Aviation students in Mahan Air Aviation Training Center in 2013.

### *2.1. Participants*

The participants of this study comprised 20 undergraduate students, 5 instructors, and 15 graduate students.

### *2.2. Instruments*

Using multiple perspectives and multiple sources of data helps to enhance the validity of the study and decrease investigator's bias (Denzin, 1970). By definition, triangulation is a way to provide the intended multiple perspectives, data sources and methods which in turn, may increase the validity of a study (Long, 2005; Thurmond, 2001). Therefore, in turn, triangulation gives the researcher kind of confidence in his/her findings and intensifies the credibility of his/her work (Jick, 1979).

The instruments of the study were a questionnaire, structured interview and semi-structured interview to have triangulation.

The researchers used questionnaires to gather information and data concerning the needs of the students who took part in this study. The data were collected using a 33-item questionnaire including three main parts for undergraduate students. The first part identified general needs of the students and elicited information in four skills, i.e. speaking, listening, writing, and reading. The second part extracted professional needs of the students. The last part tried to find the students' idea about their ESP courses. 13-item questionnaire was used to elicit information from instructors and 23-item questionnaire for graduate students. The questionnaire was designed on six-point Likert scale. The Likert-scale questionnaire was analyzed using Statistical Package for the Social Sciences (SPSS) Version 17.

Structured interview and semi-structured interview were developed. The main goal in interviewing the graduate students was to find out which areas of the English language needed more attention, so the researcher could predict the most necessary subject matters to be included in the syllabus of undergraduate ESP courses. This paper analyzed only the first and second part of undergraduate students' questionnaire, general needs and professional needs of four skills, and the result will be presented.

### 3. Findings

The findings from this investigation can be discussed from the following perspectives:

#### 3.1 Listening

As displayed in Table 1, 40% of the students agree, 45% strongly agree with the idea that textbooks should meet the listening comprehension needs of the Aviation students. Only 5% disagree with this idea.

Table 1 Frequencies and Percentages Listening Needs

Listening Needs		Frequency	Percent
Choices	Disagree	1	5.0
	Slightly Agree	2	10.0
	Agree	8	40.0
	Strongly Agree	9	45.0
	Total	20	100.0

The results of the chi-square test run to investigate the probability that the above mentioned percentages are not obtained randomly (chi-square (3) = 10,  $P = .019 < .05$ ) indicate that the differences observed in Table 1 are significant. That is to say the Aviation students significantly believe that the present textbooks should meet their listening comprehension needs.

Table 2 Chi-Square Listening Comprehension Needs

Chi-Square Listening Needs	Choices
Chi-Square	10.000 <sup>a</sup>
Df	3
Asymp. Sig.	.019

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 5.0.

#### 3.2 Speaking

Majority of the students, i.e. 90%, believe that their speaking needs should be met through the aviation textbooks. Only 4% of the students slightly disagree with this idea.

Table 3 Speaking Needs

Speaking Needs		Frequency	Percent
Valid	Slightly Disagree	4	4.0
	Slightly Agree	6	6.0
	Agree	33	33.0
	Strongly Agree	57	57.0
	Total	100	100.0

The results of the chi-square test run to investigate the probability that the above mentioned percentages are not obtained randomly (chi-square (3) = 75.60,  $P = .000 < .05$ ) indicate that the differences observed in Table 3 are significant. That is to say, the aviation students significantly believe that the present textbooks should meet their speaking needs.

Table 4 Chi-Square Speaking Needs

Chi-Square Speaking Needs	Choices
Chi-Square	10.000 <sup>a</sup>
Df	3
Asymp. Sig.	.019

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 25.0.

### 3.3 Reading Comprehension

All of the students; (40% strongly agree, 50% agree and 10% slightly agree), believe that the Aviation textbooks must meet their reading comprehension needs.

Table 5 Frequencies and Percentages Reading Comprehension Needs

Reading Comprehension Needs	Frequency	Percent
Slightly Agree	2	10.0
Agree	10	50.0
Strongly Agree	8	40.0
Total	20	100.0

The results of the chi-square test (chi-square (2) = 5.20,  $P = .074 > .05$ ) indicate that the differences observed in Table 5 are not significant. This might be due to the low number of items related to the reading comprehension needs.

Table 6 Chi-Square Reading Comprehension Needs

Chi-Square Reading Comprehension Needs	Choices
Chi-Square	5.20 <sup>a</sup>
Df	2
Asymp. Sig.	.074

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 6.73.

### 3.4 Writing

Except for 10% (Table 7) of the students who slightly disagree with the idea that the textbooks must cover their writing needs, the rest of the students (90%) believe that their writing needs should be met through the textbooks.

Table 7 Frequencies and Percentages Writing Needs

Writing Needs	Frequency	Percent
Slightly Disagree	2	10.0
Slightly Agree	3	15.0
Agree	8	40.0
Strongly Agree	7	35.0
Total	20	100.0

The results of the chi-square test (chi-square (3) = 5.20,  $P = .158 > .05$ ) indicate that the differences observed in Table 7 are not significant. This might be due to the low number of items related to the writing needs.

Table 8 Chi-Square Writing Needs

Chi-Square Writing Needs	Choices
Chi-Square	5.20 <sup>a</sup>
Df	3
Asymp. Sig.	.158

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 5.

#### 4. Discussion

The idea that the main language of the job is English was expressed by the students as the most important reason. Working with English speaking colleagues and flying to different destinations especially international flights, reading original source books or manual, relation to Air Traffic Controller and using speaking and listening skills were their target needs. These cases were some of the essential points that lead them to pay more attention to English language learning.

In conclusion, the results were consistent in pointing out heavy needs of the English language in aviation professions. This implies that effective English language instruction is greatly needed to perform the job effectively and therefore plays an important role in the careers of Aviation professionals. The result of the study revealed that students were not as competent as they ought to be in most of the skills.

The present study provided Aviation students' needs in ESP courses. Based on the data revealed by present study the findings showed the majority of the students surveyed in this study expressed their highly pressing needs to improve their four language skills to meet the requirements of their ESP courses; however, the current course fails to meet their expectations. The existing ESP program seemed to be lacking efficiency that they should have. When the skills are concerned, more emphasis should be given to practicing the skills. The content of the books and class activities should be designed carefully to cover their important needs and lead them to their target needs to be professional in their future job. Students were in need of more effective activities for these skills.

On the whole, the findings of this study will grow awareness of the significant needs of the students as a tool for improving their learning and curriculum designing. It could lead to revising the content and syllabus for such courses if we are going to address the needs of the learners and not just from our own perspectives as teachers or syllabus designers.

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