



BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA

Facultad de Lenguas

A Needs Analysis for a Basic ESP Language Course for Pilots and Air Traffic Controllers

A Thesis Submitted to the Faculty of Languages for the Degree of
Licenciatura en Lenguas Modernas

By Jonathan Rodríguez Ramírez

Thesis Director: Dr. Eliphelet Rivera Cuayahuitl



May, 2018

**A Needs Analysis for a Basic ESP Language Course for Pilots and Air Traffic
Controllers**

This Thesis has been read by the members of the Thesis Committee of

Jonathan Rodríguez Ramirez

And is considered worthy of approval in partial fulfillment of the requirement for the
degree of

LICENCIATURA EN LENGUAS MODERNAS

Dr. Eliphelet Rivera Cuayahuitl
Thesis Director

Dr. Celso Pérez Carranza
Committee Member

Mtra. Nadia Angélica Muñoz Martínez
Committee Member

TABLE OF CONTENTS

| | |
|---|-------------|
| Table of Contents | i |
| Dedications | iv |
| Acknowledgements | v |
| Table of Figures | vi |
| Table of Appendices | vii |
| Abbreviations Key | viii |
| Abstract | viii |
| | |
| 1. Chapter I. INTRODUCTION | 1 |
| Introduction | 1 |
| 1.1 Statement of the Problem | 2 |
| 1.2 Importance of the Study | 3 |
| 1.3 Purpose of the Study | 4 |
| 1.4 Specific Objectives | 5 |
| 1.5 Research Question | 5 |
| 1.6 Research Context | 5 |
| 1.7 Definition of Terms | 6 |
| 1.7.1 Air Traffic Control | 6 |
| 1.7.2 Aviation English | 6 |
| 1.7.3 English for Specific Purposes | 6 |
| 1.7.4 English for Occupational Purposes | 7 |
| 1.7.5 Needs Analysis | 7 |
| 1.7.6 Target Language | 7 |
| 1.7.7 Target Situation | 7 |
| 1.7.8 Lingua Franca | 7 |
| 1.8 Research Content Organization | 7 |
| | |
| 2. Chapter II. LITERATURE REVIEW | 9 |
| Introduction..... | 9 |
| 2.1 English for Specific Purposes | 9 |
| 2.1.1 Definition | 10 |
| 2.1.2 Background | 11 |

| | | |
|-----------|--|-----------|
| 2.1.2.1 | Absolute Characteristics | 12 |
| 2.1.2.2 | Variable Characteristics | 13 |
| 2.1.3 | Types of ESP | 14 |
| 2.1.3.1 | EAP: English for Academic Purposes | 14 |
| 2.1.3.2 | EOP: English for Occupational Purposes | 16 |
| 2.1.4 | Features of ESP Courses | 17 |
| 2.1.5 | The Role of an ESP Teacher | 18 |
| 2.2 | Needs Analysis | 20 |
| 2.2.1 | Purpose | 21 |
| 2.2.2 | Needs | 21 |
| 2.2.3 | Targeting Students | 22 |
| 2.2.4 | Context | 23 |
| 2.2.4.1 | Society | 26 |
| 2.2.4.2 | Project | 27 |
| 2.2.4.3 | Institution | 27 |
| 2.2.4.4 | Teacher | 28 |
| 2.2.4.5 | Students | 29 |
| | Conclusions..... | 29 |
| 3. | Chapter III METHODOLOGY | 30 |
| | Introduction | 30 |
| 3.1 | Research Context | 30 |
| 3.2 | Participants | 31 |
| 3.3 | Research Design | 32 |
| 3.4 | Instrument | 33 |
| | Conclusions..... | 34 |
| 4. | Chapter IV ANALYSIS AND RESULTS | 36 |
| | Introduction | 36 |
| 4.1 | Participants' background | 36 |
| 4.1.1 | Majors in Aviation | 36 |
| 4.1.2 | Age | 37 |
| 4.1.3 | Mother Tongue | 38 |

| | | |
|-----------|---|-----------|
| 4.1.4 | General English Performance | 39 |
| 4.1.5 | Aviation English Performance | 40 |
| 4.1.6 | Aviation English Expectations | 40 |
| 4.2 | General Language Skills | 42 |
| 4.2.1 | Speaking | 42 |
| 4.2.2 | Listening | 46 |
| 4.2.3 | Writing | 51 |
| 4.2.4 | Reading | 52 |
| 4.3 | Pilots and Air Traffic Controllers' Needs | 57 |
| | Conclusions..... | 59 |
| 5. | Chapter V CONCLUSIONS | 60 |
| | Introduction | 60 |
| 5.1 | Summary | 60 |
| 5.2 | Implications | 62 |
| 5.3 | Limitations of the Study | 63 |
| 5.4 | Directions for Further Research | 63 |
| | Conclusions..... | 64 |
| | References | 65 |
| | Appendices | 67 |

DEDICATIONS

Gracias **Dios**, por haberle dado a mi preciosa familia y a mí una victoria más en este nuestro camino por la vida. Gracias por los buenos y malos tiempos, por la alegría y por el abatimiento. Pero muchas gracias porque a pesar de estar rodeado por las tinieblas, tu luz celestial siempre guía nuestros corazones. **TE AMO DIOS.**

Fabiola y Benjamín, padres. Mis mentores de vida, si no fuera por su invaluable amor y su apoyo incondicional desde antes de nacer no estaría escribiendo estas líneas ahora. Gracias por haber compartido conmigo su esencia, sus valores, sus atributos, su educación, sus frustraciones.

Angie y Benny, hermanitos aunque siempre tengamos algunas diferencias, jamás en la vida voy a dejarlos solos. Cada vez que necesiten de mi voy a estar para ustedes y voy a cuidarlos todo el tiempo que Dios me preste vida.

Ian e Icker, échenle ganas “chaparrines”, sean el orgullo de sus padres y mantengan en alto el apellido **Rodríguez** porque vienen de una descendencia de hombres muy inteligentes y sabios empezando por su bisabuelito **Lucio**.

Abu preciosa, gracias por haberme regalado 26 años de tu precioso tiempo en la tierra, por haber vigilado mis pasos en mi infancia, por esos dulces para “endulzarme la vida” y por esos cortos pero sabios consejos. Dios te concedió 85 años de vida y ahora descansas esperando el día en que Jesús te llame para gozar de vida eterna. ¡Te extraño mucho Abuelita!

Hugito, a ti tengo mucho que decirte pero lo resumiré en dos breves y concisas palabras. TE AMO. Gracias por llegar a mi vida y gracias por brindarme la oportunidad de conocer al ángel guardián que necesitaba en mi camino.

ACKNOWLEDGEMENTS

Special thanks go to Dr. Eliphelet Rivera Cuayahuitl for his constant work and commitment towards my research project. It took me forever to find a special director who really cares about my work and my desire to join two of the most important things I love in life: Aviation and English.

I would like to thank the students who participated taking the survey to elicit the needs in order to build up a syllabus which is going to be proposed so they can be good professionals in the near future.

TABLE OF FIGURES

| | |
|--|----|
| 1. Figure 2.1 <i>Simplified Tree of ELT</i> | 15 |
| 2. Figure 2.2 <i>Types of ESP Courses</i> | 16 |
| 3. Figure 2.3 <i>Factors to Consider in Defining the Context</i> | 25 |
| 4. Figure 3.1 <i>Characteristics of Quantitative and Qualitative Research</i> | 33 |
| 5. Figure 4.1 <i>Majors in Aviation</i> | 37 |
| 6. Figure 4.2 <i>Participants' Age</i> | 38 |
| 7. Figure 4.3 <i>Participants' Mother Tongue</i> | 38 |
| 8. Figure 4.4 <i>General English Performance</i> | 39 |
| 9. Figure 4.5 <i>Aviation English Performance</i> | 40 |
| 10. Figure 4.6 <i>Aviation English Expectations</i> | 41 |
| 11. Figure 4.7 <i>Oral Presentations (B1.1)</i> | 42 |
| 12. Figure 4.8 <i>Wording ideas (B1.2)</i> | 43 |
| 13. Figure 4.9 <i>Saying something different by mistake (B1.3)</i> | 43 |
| 14. Figure 4.10 <i>Lack of lexicon (B1.4)</i> | 44 |
| 15. Figure 4.11 <i>Different uses of speech (B1.5)</i> | 44 |
| 16. Figure 4.12 <i>Pronunciation (B1.6)</i> | 45 |
| 17. Figure 4.13 <i>Entering Discussions (B1.7)</i> | 45 |
| 18. Figure 4.14 <i>Understanding Lectures (B2.1)</i> | 46 |
| 19. Figure 4.15 <i>Taking Effective Notes (B2.2)</i> | 47 |
| 20. Figure 4.16 <i>Asking for Information Twice (B2.3)</i> | 47 |
| 21. Figure 4.17 <i>Understanding Long Conversations (B2.4)</i> | 48 |
| 22. Figure 4.18 <i>Understanding Spoken Instructions (B2.5)</i> | 48 |
| 23. Figure 4.19 <i>Main Element of a Conversation (B2.6)</i> | 49 |
| 24. Figure 4.20 <i>Comprehending Aeronautical Phraseology (B2.7)</i> | 49 |
| 25. Figure 4.21. <i>Reasons for troubles in Listening Comprehension</i> | 50 |
| 26. Figure 4.22 <i>Level of Importance and and Difficulties faced in Writing Skills</i> .. | 52 |
| 27. Figure 4.23 <i>Commandment for Aviation Reading Materials</i> | 53 |
| 28. Figure 4.24 <i>Difficulties when Reading Aviation Materials</i> | 54 |
| 29. Figure 4.25 <i>Understanding Main Point of a Text (B6.1)</i> | 55 |
| 30. Figure 4.26 <i>Scanning (B6.2)</i> | 55 |

| | |
|--|----|
| 31. Figure 4.27 <i>Guessing Unknown Words from Context (B6.3)</i> | 56 |
| 32. Figure 4.28 <i>Specialist Vocabulary (B6.4)</i> | 56 |
| 33. Figure 4.29 <i>General Comprehension (B6.5)</i> | 57 |
| 34. Figure 4.30 <i>Pilots and ATC controllers' Needs</i> | 58 |

TABLE OF APPENDICES

| | |
|--|----|
| 1. Appendix 1. <i>Instrument</i> | 67 |
| 2. Appendix 2. <i>Pilots and Air Traffic Controllers' needs</i> | 74 |

LIST OF ABBREVIATIONS

| | |
|-------------|---|
| ELF | English as a Lingua Franca |
| ELT | English Language Teaching |
| EFL | English as a Foreign Language |
| ESP | English for Specific Purposes |
| EOP | English for Operational Purposes |
| EAP | English for Academic Purposes |
| EST | English for Science and Technology |
| EBE | English for Business and Economics |
| ESS | English for Social Studies |
| NA | Needs Analysis |
| ICAO | International Civil Aviation Organization |
| ATC | Air Traffic Control |

ABSTRACT

The present work has been urged by the crucial need to design an adequate syllabus for pilot and air traffic controller students. The growing demands of the globalization process have pushed the aviation industry to introduce new reforms without always taking into consideration neither the actual students' needs nor the societal context. Therefore, the researcher has undergone a needs analysis in order to determine exact lacks and needs that would permit students to grasp effective linguistic efficiency and consequently, to attain the targeted objective. Misunderstanding between pilots and air traffic controllers is an international problem. The use of slang and idiomatic phrases, combined with strong regional accents and the failure to use the standard phraseologies recommended by the International Civil Aviation Organization (ICAO) lead to an imminent danger if pilots and air traffic controllers do not pay close attention to the vocabulary they are using in their everyday work.

The study involved twenty former students majoring in Aviation. Data were collected drawing on a questionnaire used to elicit the special needs that students have related to English in their subject field, this questionnaire was composed of eighty-six items, all of them were selected carefully to best achieve the goal this project intended to achieve. Data were analyzed using graphs for a better understanding of the results.

Findings show that students treasure the learning of a lingua franca like English. Since English is spoken all over the world; former aviation students need a basic course following the axes proposed by the ICAO. They also need to master their linguistic skills at a communicative English. Learn vocabulary related to aviation is also important to them.

The outcomes from this study are expected to help learners from similar contexts to build the basis of their professional careers by using the lingua franca in their lives.

**“Adelante caminante y no perturben este paso,
Porque ahí voy”**

Elvira Trevera Rodríguez
(Enero, 1930 – Abril, 2015)

CHAPTER I:**Introduction.**

English has become the global language. As Robson declares (2013:2-5), English is spoken by a quarter of the world's population. It also makes a significant contribution to a sustainable global development. For those emerging economies, there is an enormous demand and need for English in public education systems to boost employment, stability, prosperity and economic growth because it makes easier the commerce and business among countries which do not share a common language. English is used as a language of convenience as well. As stated by Robson (2013:5), a more prosperous world is a safer and more secure world.

Moreover, English is the *Lingua Franca* that holds together the international conversation and debate in topics such as global warming, terrorism, human rights, global diseases, business, and trade.

English Language Teaching (ELT) has widely diversified in order to be able to satisfy the demands of an ever-changing population of learners. Thus, since its appearance 35 years ago, the field of English for Specific Purposes (ESP) has considerably grown to extend to domains such as science, medicine, law, business, and some other fields of professional studies.

As reported by Hutchinson & Waters (1995:09), these developments in ESP have grown parallel to the increasing acknowledgement of the learners' needs and wants as a central part of curriculum development in general language teaching. Swales (1985:220), agrees that it is now recognized that any language program will be only as relevant as it fulfills the learners' requirements within a wider social context and culture.

According to Dudley-Evans & Saint-John (1998:85-88), the areas where ESP has been most strongly emphasized are science, medicine, and law. However, there are some other greater fields where English is also necessary. A clear example about the importance of English in other fields than the ones mentioned above are those employees working in Aviation to carry out their daily activities.

This project is a research of the needs of people who are working and studying Aviation and who require having a wide knowledge about vocabulary and commands in Specific English.

1.1 Statement of the Problem

Since the beginning of times, when people used language to express their needs, feelings, and thoughts, there have been some problems in communication when it comes to spoken or written language. These troubles grew when people had needs, wishes, and demands to broaden their vocabulary so they could use it in their everyday profession.

Globalization has increasingly influenced the common interactions among people worldwide. Hence, English, or what is called 'The Global Language', has been needed to create special fields of study to cater with the growing demands of new technology and communication; yet special goals directed English language learning and teaching sessions were highly prompted.

The problem I am interested in researching is about issues which people working in Aviation have when it comes to using specific terminology and structures in their work field. So that, at the end of the day, I can propose a syllabus for a Basic ESP Course featuring the needs that pilots and ATC controllers have in order to avoid difficult understanding at airports worldwide.

Difficulty in understanding related to pilots and ATC controllers may be widely applied to a variety of verbal communication issues, such as ambiguity, cultural differences, language structure, just to name some of the communication issues. But one thing is for sure; humans are far from perfect. Everybody makes mistakes. The difference is that in aviation, mistakes can be deadly.

Job (1998:202) exemplifies what it was said above. The collision between the Pan Am and KLM Boeing 747 at Tenerife in March 1977, which killed 583 people, was a relevant event for aviation safety. While there were many human factors involved, the accident was a tragic lesson in misunderstanding orders. The accident

demonstrated that, in the aviation industry, information transmitted can be understood differently, as a result of ambiguous terminology and the elimination of key words or phrases and that the oral transmission of essential information, via single and vulnerable radio contacts, carries with it great potential dangers.

Nine months after this incident, the Air Navigation Committee of the International Civil Aviation Organization (ICAO) took action by emitting reports and implementing radiotelephony changes in 1984.

As declared by Job (1998:205), two decades later, problems understanding aeronautical phraseology still caused aircraft accidents. The second devastating air crash took place in September 1997; the confusion between the pilot and air traffic controller is considered the most likely cause of the A300 Airbus crash at Medan, Sumatra, which claimed 234 lives.

This project is fully focused in those issues related to vocabulary, general grammar structures and its avoidance by creating a basic course for pilots and air traffic controllers. However, it is important to state that some technical issues may also be responsible for misunderstandings between ATC and pilots such as microphone “clipping”, that is, when a controller (or pilot) fails to ensure that the microphone switch is activated prior to speaking, or deselects it prior to finishing speaking. Since misunderstanding has been a causal factor in numerous fatal accidents related to Aviation, it is mandatory to avoid any dangerous situation which can lead to air disasters.

1.2 Importance of the Study

The results of this paper will provide the bases for a complete design of a course specialized to teach English for Specific Purposes to people who work in the Aeronautical Transportation System. This course will provide students with advanced communicative skills and tools, as well as content related vocabulary necessary for their job.

Moreover, a syllabus for a basic course might be proposed for future reassembly based on the needs gotten in this dissertation which can be perfectly implemented in flight schools where they do not have a specific syllabus for the subject. Furthermore, the course can also be taught to in-service pilots, allowing them to gain advancement in their performance.

This paper will also give a valuable contribution to the ESP and English for Operational Purposes (EOP) fields. The instruments can be used or any further research can be done based on the topic which is stated in this dissertation to support the same or any other related areas.

1.3 Purpose of the Study

The main objective underlying this project is to explore which abilities should be developed in students who are majoring in Aviation as pilots and air traffic controllers through a needs analysis method which help us propose a syllabus that fulfills the requirements expected by the ICAO. This paper will include the instrument used to achieve its objective for the subject that can satisfy the specific language needs of flight schools.

My interest in the subject aroused when I was listening to an ATC radio broadcasted on Internet. The ATC controller was sequencing heavy traffic into runway 23L at Aeropuerto Internacional Benito Juarez. Nevertheless, the pilot misunderstood orders and started turning with wrong vectors to land at 13L, which does not exist in the airport mentioned before.

Confusion with numbers or names such as “alpha” and “delta” taxiways, for example, occurs occasionally with most controllers. Another example is when a pilot read back “Flight level two--seven--zero” when the controller has issued “Climb to flight level two--zero--zero”. These are examples of misunderstanding orders because pilots expect vectors for taxing, taking off or landing and the crew of a departing jet is expecting to climb higher than twenty thousand feet. But they may also be due to poor

pronunciation, poor microphone technique, a distracted, busy crew or a noisy frequency—perhaps all of these.

1.4 Specific Objectives

The needs analysis to design a basic course which is the main objective that this project intends to create has some specific objectives which can be used as a guide for future and extended research and addresses to the following goals:

1. To perform a Needs Analysis (NA) for teachers working in flight schools.
2. To propose a syllabus which addresses specifically the needs and wants of students, teachers, pilots and ATC controllers immersed in the aviation field.
3. To propose the build of materials related to the syllabus that can be used by teachers or instructors in order to help them facilitate the course.

1.5 Research Question

This paper sets out to answer the following research question:

What are the most important abilities that pilots and air traffic controllers should master in their majors required by the International Civil Aviation Organization?

1.6 Research Context

Nowadays, not only students of the Faculty of Languages are expected to master one or more foreign languages. Since this world is a challenging place for people who are looking forward to succeeding in life, employers look for better professionals who can perform several tasks at a time and who are able to speak or at least have good commands in one, two or more foreign languages. Students of Science and Technology, Business and Economics, or other branches of the Social Sciences increasingly need to have good commands of at least one foreign language.

The setting is a group of students who are majoring to become either pilots or air traffic controllers and who are not taking an English course at a flight training center. The English language that pilots and air traffic controllers need is called English for Specific Purposes (ESP). According to Dudley-Evans (1998:88), English for Specific Purposes meet specific needs. For instance, pilots and air traffic controllers have

extremely specific needs to learn English and these needs vary from those of LEMO students.

Therefore, the main difference between teaching English to a group of students majoring in English for teaching and teaching English to a group of students majoring in, say, Aviation, Physics, or Chemistry lies in the choice of speaking and listening materials, discussion-oriented topics, and a very specific metalanguage. Both groups should also be trained in note-taking, outlining, summary writing, in stress, intonation, and pronunciation which are the general features of the language.

1.7 Definition of Terms

The following terms are essential for the theoretical framework of this thesis.

1.7.1 Air Traffic Control ATC: is a service provided by ground-based controllers who direct aircraft on the ground and through controlled airspace, and can provide advisory services to aircraft in non-controlled airspace. The primary purpose of ATC worldwide is to prevent collisions, organize and expedite the flow of traffic, provide information, and other support for pilots (*Federal Aviation Administration, 2015:2-1-1*).

1.7.2 Aviation English: It is the comprehensive but specialized subset of English related broadly to Aviation, including the “plain” language used for Radiotelephony Communications when phraseologies do not suffice. Not restricted to Controller and Pilot communications, Aviation English can also include the use of English related to any other aspect of Aviation: the language needed by pilots for briefings, announcements, and flight deck communication, and the language used by maintenance technicians, flight attendants, dispatchers, managers and officials within the Aviation Industry or even the English Language studied by students in aeronautical and/or aviation universities (*International Civil Aviation Organization, 2004:18*).

1.7.3 English for Specific Purposes ESP: An approach to language teaching which includes the following absolute characteristics: it is designed to meet specific needs of the learner, it makes use of the underlying methodology and activities of the disciplines it serves, and it is centered on the language, skills, discourse, and genres appropriate to these activities (Dudley-Evans & Saint-John, 1998:2).

1.7.4 English for Occupational Purposes EOP: This term refers to a subdivision of ESP which concerns specific disciplines such as medicine and has a practical focus on them. EOP courses may be pre-experience, simultaneous to experience, and post-experience. Thus, the purpose of these courses allows people in a certain area to perform typical tasks in their jobs in the English Language (Dudley-Evans & Saint-John, 1998:6).

1.7.5 Needs Analysis: It is related to the needs, wants and desires of a special group who have the commitment to learn something specific from a general subject. It is related to the awareness of a target situation that distinguishes the ESP learner from the learner of General English (Hutchinson & Waters, 1995:53).

1.7.6 Target Language: The language any person is learning which is different from the one he/she uses since the moment they are born (Macaro, 2000:171).

1.7.7 Target Situation: According to Hutchinson & Waters, this term refers to the situation in which the learners will use the language they are studying (Macaro, 2000:184).

1.7.8 Lingua Franca: ELF (English as a lingua franca) as it is generally conceived of is essentially a 'contact language' among people who share neither a common native tongue nor a common (national) culture, and for whom English is the chosen foreign language of communication (Firth, 2009:9).

1.8 Research Content Organization

This thesis will have 5 chapters, as follows. In the first Chapter, the introduction to the topic, highlighting the main theoretical sources relevant to the introduced situation in the paper, as well as some examples dealing with the problem stated in the thesis. Furthermore, the purpose of the study will be stated. The research question is in Chapter I as well. To conclude, a set of definitions of the main concepts within the introductory framework are given.

Chapter II deals with the whole theoretical framework in detail, as it presents the bases for the needs analysis planned such as, processes and models and implications to ESP related to Aviation. An analysis of the reasons for

misunderstanding between pilots and air traffic controllers and the process of the development of ESP as a subdivision of general English Language Teaching will be included. Finally, the last part of Chapter II of the research provides a description of needs analysis which is the main focus of this research.

Chapter III presents the methodology followed to carry out the project. It also includes a description of the context and subjects, the instrument, and the procedures undertaken to collect, analyze, and interpret the data.

Chapter IV presents, illustrates and discusses the results of the project, which are further interpreted in Chapter V. This last chapter presents the implications of these results, the limitations of the study, and some directions for further research. The very last part of this paper presents the selected references which help me to construct the whole content of the project. Finally, the appendices are presented, containing the instrument used to approach the objective of this thesis.

CHAPTER II:

Introduction

This chapter introduces the literature as a background to support the whole project developed in this work. The chapter contains a brief but clear explanation on how to design a course of English for Specific Purposes and its features. The literature review presents significant topics, which were relevant to the research question and helped elaborate a questionnaire to elicit the needs that students in Aviation need.

2.1 English for Specific Purposes

English for Specific Purposes (ESP) has become more important because there are new fields of study which use English to perform daily activities. From the early 1960's, ESP has grown to become one of the most prominent areas of English as a Foreign Language (EFL) teaching today. That is why researchers and linguists have increasingly interest in this area and as more fields of study are being demanded by people worldwide, the greater awareness is going to be about this subject.

There are several interpretations to describe ESP. In the opinion of Laurence (1998), some people describe ESP as simply being the teaching of English for any purpose that could be specified. However; others were more precise, describing it as the teaching of English used in academic studies, or the teaching of English for vocational or professional purposes. As shown by Laurence, there are different opinions about the interpretation of ESP. Nevertheless; what is important about this, is that there are some similarities between both descriptions. As a result, we can say that ESP is the teaching of English of a reason based on the purposes and the context of study.

Hutchinson & Waters (1995:73) remark that ESP has paid scant attention to the question of how people learn, focusing instead on the question what people learn. In other words, ESP is mainly focused on to the things that students are going to learn in a specific course.

2.1.1 Definition

ESP is focused on the learner's motivation towards their own learning of the language. As reported by Hutchinson & Waters (1995:75), English for Specific Purposes is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning. For instance, a pilot's reason for learning English is to avoid any type of problems with communications with the Air Traffic Controller (ATC) and in that matter of fact, to avoid any dangerous situation which can put people's life at risk.

Another interpretation for the concept we are studying right now is presented by Munby (1978:74), who expresses the view that ESP course are those where the syllabus and materials are determined in all essentials by the prior analysis of the communication needs of the learner. That is, in order to create an ESP course, the first thing we need to do is to establish the crucial objectives by analyzing the needs of the learners. The notion of ESP and communication needs are emphasized in the ESP.

Mackay & Mountford's (1978:13) research suggest that ESP is a restricted repertoire of words and expressions selected from the whole language because that restricted repertoire covers every requirement within a well-defined context, task or vocation. In other words, Mackay & Mountford's study shows that ESP is a language adapted according to specific needs to match specific situations.

Moreover, Mackay et al. (1978:13) added that ESP is generally used to refer to the teaching of English for a clearly utilitarian purpose. This purpose is usually defined as follows:

- a) Occupational requirements, i.e., for international telephone representatives, etcetera.
- b) Vocational training programmes, i.e., for hotel and catering staff, etcetera.
- c) Academic or Professional studies, i.e., for Aviation, Engineering, etcetera.

Stevens (1988:10) makes a distinction between two characteristics to define English for Specific Purposes (ESP):

- a) *Absolute Characteristics*. Strevens (1988) claims that language teaching is designed to meet specified needs of the learner; it is also related in content to particular disciplines, occupation and activities; it is centered on the language appropriate to those activities in syntax, text, discourse, semantics, and so forth.
- b) *Variable Characteristics*. Strevens (1988) explains that English for Specific Purposes (ESP) may be restricted to the language skills to be learned, e.g., speaking for pilots and air traffic controllers (ATC). Strevens also states that ESP is not taught according to any pre-ordained methodology.

Lastly, Dudley-Evans & St. John (1998:35), in a more recent study have modified Strevens' definition that ESP is in contrast with 'General English', and improved the absolute characteristics. Dudley et al. (1998:35) revised and increased the number of variable characteristics as seen in the following topic.

2.1.2 Background

After the Second World War, there was a large expansion worldwide of economic, technical and scientific activities. This development led people to look for a common language so they could communicate easily among others. Moreover, English became the accepted international language of technology and commerce; hence, it created a new generation of learners who knew specifically why they were learning a language.

In other words, English became the favorite language to speak worldwide because of the enormous growth of the United States after the Second World War. Consequently, English became the lingua franca for science and technology and suddenly, there were students who had the urge to learn English so they could start having more and more opportunities to perform their activities at work.

For example, businessmen need English to persuade clients to buy, to sell products and exchange trades, to contact members and expand enterprises internationally. Doctors need English so they can be up to date with the latest medical advances. As stated by Hutchinson & Waters (1986:16), all these professionals as well as many others need English and, most importantly, they know why they need it.

There were some other changes which gave birth to the ESP. According to Widdowson (1978:66), the aim of linguistics had traditionally been to describe the

rules of English usage, i.e. the grammar. However, the new studies shifted attention away from defining the formal features of language usage to discovering the ways in which language is actually used in real communication. A study done by Widdowson shows that the language we speak varies considerably from one context to another. For instance, there are important differences between the ELT programs taught at Higher Education and that of a flight-training center.

The developments in educational psychology also contributed to the rise of ESP, by emphasizing the central importance of the learners and their attitudes towards learning. Furthermore, Rodgers (1969:55) declares that learners were seen to have different needs and interests, which would have an important influence on the motivation to learn and therefore on the effectiveness of their learning.

2.1.2.1 Absolute Characteristics

Dudley-Evans & St. John (1998:35) retrieved Strevens' explanation about ESP and expounded their revised view on ESP in terms of absolute characteristics.

1. **ESP is defined to meet specific needs of learners.** Pilots and Air Traffic Controllers (ATC) have very specific needs of learning the language. Hence, the creation of an ESP course is going to be designed according to the specifications of the needs and wants of the students always answering the questions "Why are you learning English?"
2. **ESP makes use of underlying methodology and activities of the discipline it serves.** As English for Specific Purposes practitioners, we need to look for, adapt, and if possible, to create material always related to the ESP course we are serving for. These materials adapted to fulfill the needs of students learning specific language will help improve their performance every time they are requested to do an activity.
3. **ESP is centered on the language appropriate to these activities in terms of grammar, lexis, and so on.** ESP practitioners must enhance and use some important features of linguistics but adapted to serve in a perfectly functional way to the demands of the needs and the purpose for which the

course was created. For instance, an ESP practitioner who is giving a course for Aviation must take into account what are the pieces of grammar and vocabulary requested for students and people working into the field they may need.

2.1.2.2 Variable Characteristics

Dudley-Evans & St. John (1998:35) retrieved Strevens' explanation about ESP and explicated their revised view on ESP in terms of variable characteristics.

1. **ESP may be related to or designed for specific disciplines.** Such as Economics, Engineering, Medicine, as well as the one being researched here - Aviation. Every single discipline is meant to have its own vocabulary and its own way to use some grammatical functions as well.
2. **ESP may use, in specific teaching situations, a different methodology from that of General English.** As stated in the Research Context from Chapter One, there is a very huge difference between ELT programs taught at 'Facultad de Lenguas, BUAP' and the language taught at a flight training center. Even though it is the same language they speak, the teaching methodology as well as the grammatical functions and the lexis used is going to be different when creating a course.
3. **ESP is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation.** It could, however, be for learners at secondary school level. ESP is generally designed for intermediate or advanced learners as stated in the following characteristic, but it may also be practically implemented in lower levels of education.
4. **ESP is generally designed for intermediate or advanced students.** For example, pilots and air traffic controllers need to have at least good commands in general of the four skills in the language so they would not have any sort of problem when taking a specific course which satisfies their specific needs to learn.
5. **Most ESP courses assume some basic knowledge of the language systems.** As stated above, people who are willing to take an ESP course are

expected to manage and have good commands in general about the language so they can be introduced to a new kind of methodology, since ESP courses must be developed differently from those General English courses.

2.1.3 Types of ESP

Since English is the lingua franca spoken all over the world, more and more people need to master and study the language due to the authority of English over the Business and Economy world, and within the fields such as Aviation, Technology, Science, Medicine, and Engineering. The English language became the international accepted language. In the opinion of Strevens (1988:13), a fifth of the total -population who speak English are native speakers.

Hence, ESP is divided by many linguists into different branches. As reported by Hutchinson & Waters (1986:74) ESP is broken down into three branches:

1. *English for Science and Technology. (EST)*
2. *English for Business and Economics. (EBE)*
3. *English for Social Studies. (ESS)*

Every single subject area is further divided into two branches: English for Academic Purposes (EAP) and English for Operational Purposes (EOP).

Carver (1983:131) points out and also identifies three types of English for Specific Purposes (ESP):

1. *English as Restricted Language.*
2. *English for Academic and Occupational Purposes.*
3. *English with Specific Objectives.*

2.1.3.1 EAP: English for Academic Purposes

English for Academic Purposes is learnt because it is within the curriculum of higher education institutions, especially universities. Students are trained to use English for Academic Purposes so that they can use language appropriately for study.

Hutchinson & Waters (1995:104) present a diagram of the simplified tree of ELT (see Figure 1). EAP is a sub branch of English for Specific Purposes (ESP) that is divided into:

1. *English for Science and Technology. (EST)*
2. *English for Business and Economics. (EBE)*
3. *English for Social Sciences. (ESS)*

Each one of these branches splits in two; for work and for Academic Study, which have their own branches according to the learners' needs and wants. Furthermore, as stated by Kennedy & Bolitho (1984:136), English for Specific Purposes is also divided into two parts:

1. *English for Occupational Purposes. (EOP)*
2. *English for Academic Purposes. (EAP)*

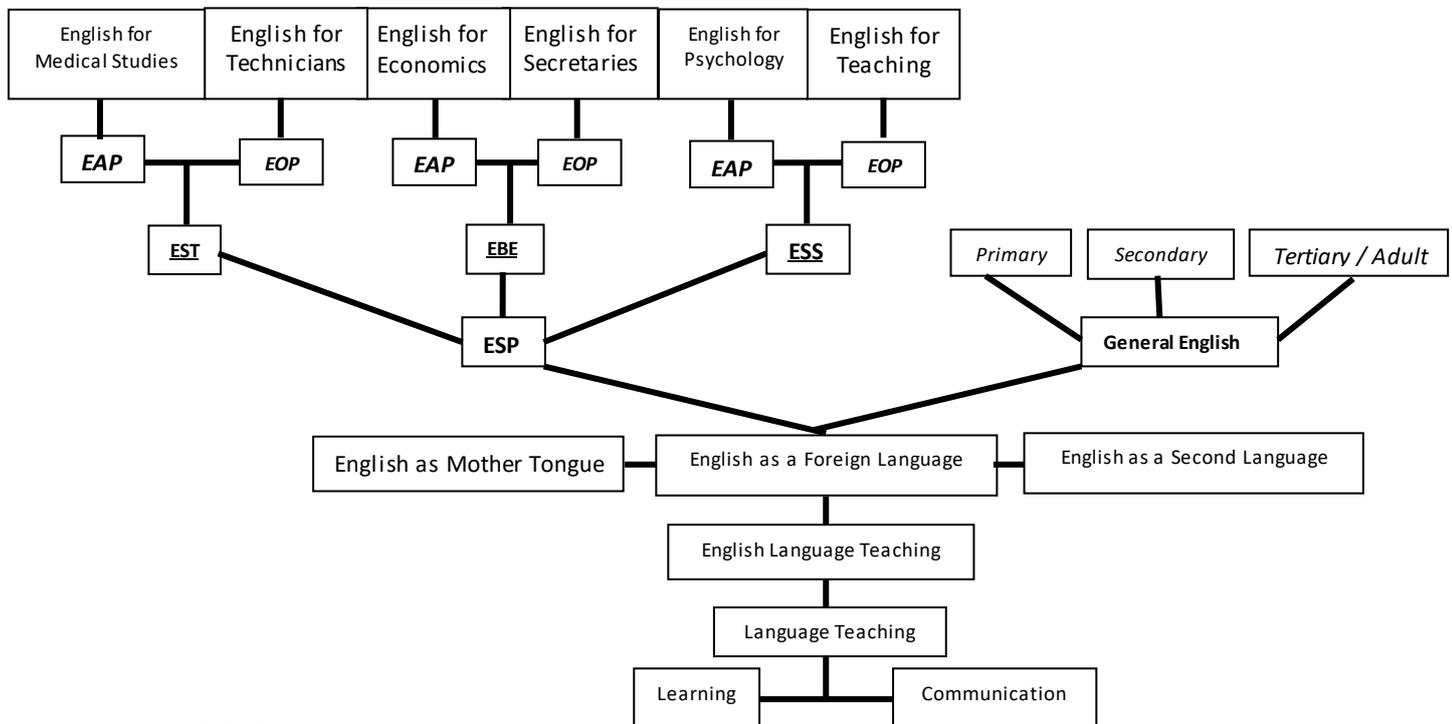


Figure 2.1. Simplified Tree of ELT.
Source: Hutchinson & Waters (1995)

2.1.3.2 EOP: English for Occupational Purposes

English for Occupational Purposes (EOP) is also called English for Vocational Purposes (EVP) it is meant to be done for a specific discipline or as a school subject. Moreover, while English for Academic Purposes (EAP) is mainly concerned with the development of the language competence necessary to handle with the reading of academic texts, e.g. Research Articles, Research Papers, Monographs, etc. and dealing as well with specific topics and disciplines, such as Medicine, Psychology, Business, Technology, International Law, and so forth.

English for Occupational Purposes (EOP) focuses on practical language skills needed by professionals working in an English speaking environment. The two fields of interest clearly overlap since the ability to apply the knowledge of a foreign language to practical communicative activities such as speaking, listening, writing, reading, in a specific professional context requires an understanding of the professional sector and some knowledge of the subject field.

For instance, Kennedy & Bolitho (1984:137) presented a clear distinction between both concepts, English for Academic Purposes (EAP) and English for Occupational Purposes (EOP) which is presented in Figure 2.2.

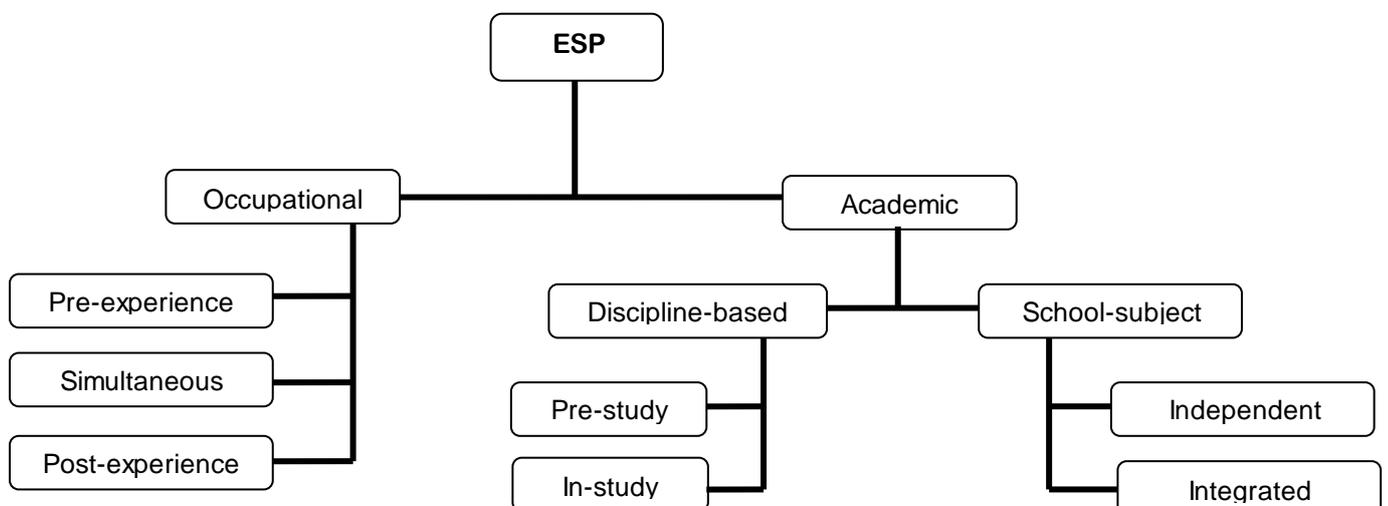


Figure 2.2. Types of ESP Courses.
 Source: Kennedy & Bolitho (1984:137)

According to Figure 2.2, ESP is divided into two disciplines: Occupational and Academic Training. Inside English for Occupational Purposes, the researcher can differentiate three forms of language acquisition:

1. **Pre-experience.** English is taught before the job related.
2. **Simultaneous.** As its name holds, English is learnt during the job.
3. **Post-experience.** The language is used after the training.

As far as English for Academic Purposes is concerned, it is split into two main training methods:

1. **Discipline-based.** That is, academic English is considered as a discipline on itself, and it is divided onto a pre-study training or in-study training.
2. **School-subject:** That is, English as part of the curriculum and it is divided into:
 - *Independent subject:* In other words, English is taught as a language study.
 - *Integrated subject:* When it is taught in connection to a specific school subject.

2.1.4 Features of ESP Courses

In the opinion of Carver (1983:135), the following are three characteristics common to ESP courses:

1. **Authentic Materials.** Authenticity has been pointed out by many authors as a relevant feature in English for Specific Purposes (ESP) methodology. In the opinion of Safont (2004:261), the learner-centered approach is essential to ESP teaching, and identified learners' needs are not fully satisfied by published texts. As Safont (2004:267) suggests, authentic materials should be taken from the real world and not primarily created for pedagogical reasons. And they can be perfectly adapted for communicative purposes since they immerse students in a realistic environment which are accurate to the learners' needs.

House (2008:53-70) also talks about the use of authentic materials and how they can help ESP learners by saying that students and teachers can use authentic materials as a means to link the formal, and to some extent artificial, environment of the classroom with the real world in which we hope our students

will eventually be using the language they are learning. To summarize, Safont (2004) and House (2008) agreed that it is extremely important that ESP practitioners use authentic materials in ESP courses because they help learners to achieve their goals and satisfy their needs and wants regarding to the language.

2. **Purpose-related Orientation.** It is addressed to the simulation of communicative tasks required by a specific target setting. Carver (1983:134) points out a student simulation of a conference, involving the preparation of papers, reading, note taking, and writing. For instance, at a Flight Training center, English for Aviation involves students who are willing to be either pilots or air traffic controllers in tasks such as writing flight routes report, listen accurately to Radio System Transmission from any kind of purpose, say, weather, ground services, air traffic controllers, departure and approach contacts, communication among other aircraft, read and write flight plans and departure and arrival standards, and so forth.
3. **Self-Direction.** The third characteristic of an English for Specific Purposes course deals with the autonomy of the learner. Carver (1983:134) holds the view that “ESP is concerned with turning learners into users.” Since learners must be aware of their independent learning, it is necessary that ESP practitioners encourage students to have a certain degree of autonomy to decide when, what and how will they study.

2.1.5 The Role of an ESP Teacher

Dudley-Evans & St. John (1998:37) use the term ‘practitioner’ instead of ‘teacher’. Nevertheless, both can be used since they are merely facilitators to learners. ESP practitioners handle several roles as follows:

1. **The ESP practitioner as a teacher.** ESP is a practical subject and its main objective is to help students to learn. However, Dudley-Evans et al. (1998) remark that, teachers do not know the subject content they are working with completely well, on the other hand, students do, since they are deeply immersed in the target context. The teacher has the possibility to motivate students to apply that knowledge in order to generate communication in the

classroom. ESP teachers need to have considerable flexibility, be willing to listen to learners, and be interested in the activities that learners are involved.

2. **The ESP practitioner as course designer and material provider.** According to an article written by Bojović (2012:490), it is rarely possible to use a particular textbook without the need for supplementary material, and sometimes there is no specific textbook for such specific discipline that teacher is expected to teach. English for Specific Purposes practitioners need to select published material and adapt materials if they are not suitable to the purpose of the learners. ESP practitioners must be willing to create materials if necessary. They also need to assess the effectiveness of the teaching material either if it is published or created.
3. **The ESP practitioner as collaborator.** It is believed that ESP practitioner reaches better results through collaboration with subject specialists. In other words, it involves the collaboration between the teacher and a specialist who is deeply aware of the learners' needs, wants, as well as their environment. Bojovic (2012:491) suggests a possibility for co-work between ESP teacher and Subject Specialist; that is, that the specialist checks and comments on the content of the teaching materials that the ESP teacher has prepared. Bojovic (2012:492) also states that the fullest collaboration is where a subject expert and a language teacher team teach classes. However; in my opinion, I would not suggest doing team teaching since subject expert and language teacher may have a very different teaching methodology and they might have some discrepancies according to how to teach learners.
4. **The ESP practitioner as evaluator.** The ESP practitioner needs to do different types of evaluation. Bojovic (2012:491) observes three types of evaluation: testing students, evaluation of courses and teaching materials.

Testing students are conducted to assess whether students have the necessary language and skills to undertake a particular academic course. They are also conducted to assess the level of the learners' achievement, that is, how much the learners have gained from a course.

The evaluation of a Course Design as well as the teaching materials should be done while the course is being taught, at the end of the course and

after the course has finished. Furthermore, Bojovic (2012:491) remarks that in order to assess whether the learners have been able to make use of what they learned and to find out what they were not prepared for. In conclusion, ESP teacher's evaluation through discussion and on-going needs analysis can be perfectly used to re-adapt the syllabus.

2.2 Needs Analysis

The main concern of ESP is to have a very well defined strategy to create or adapt teaching material and to develop a course design, thus, if we had to state in practical terms how to create a course based on the ESP approach, it would be needs analysis, since it is the awareness of a target situation (Hutchinson & Waters, 1995:104).

Richards' (2001:51) study shows that the procedures used to collect information about learner's needs are known as needs analysis. In other words, needs analysis is the process to determine learners' needs so they can constitute the foundation of a course and material design.

In addition, Richards' (2001:28) states that different types of students have different language needs and what they are taught should be restricted to what they need. In other words, the ESP practitioner has to determine the needs of the learners in order to bridge the gap between present obstacles or problems that students may have and future better language proficiency. Finally, the teacher is one step closer to being able to translate these needs into linguistic and pedagogic terms in order to produce and teach an effective course (Mckay & Mountford, 1978).

From Hutchinson & Waters (1995), Richards (2001), and Mackay & Mountford's (1978) results it may follow that, needs Analysis (NA) is carried out by several procedures, say, interviews, questionnaires, case studies, observation and so on. Thus, this research will be conducted by a structured questionnaire which is going to be administered to students of aviation at a flight training center in Puebla.

2.2.1 Purpose

Hutchinson and Waters (1995:53) maintain that any course should be based on an analysis of learner's needs. Certainly, needs analysis is conducted in order to create a program which fulfills learners' needs and wants. Thus, one has to be careful as far as the interpretation of the findings of needs analysis because there is no necessary one-to-one transfer from needs analysis to course design (Hutchinson & Waters, 1995).

Therefore, Richards (2001:35) has described some potential purposes to needs analysis:

1. To find out what language skills a learner needs in order to perform a particular role, such as pilots and air traffic controllers, sales managers, tour guides, or university students.
2. To help determine if an existing course adequately addresses the needs of potential students.
3. To identify a gap between what students are able to do and what they need to be able to do.

The information obtained can then serve as the basis for planning a training program.

2.2.2 Needs

ESP learners' needs are often described in terms of performance, that is, in terms of what the learner will be able to do with the language at the end of a course of study. The task of finding out learners' needs is a challenging undertaking since needs have been defined differently by several language specialists. According to Richards (2001:54), for instance, needs are often described in terms of a linguistic deficiency, that is, as describing the difference between what a learner can presently do in a language and what he or she should be able to do.

Hutchinson and Waters (1995:55) have classified needs into necessities, wants and lacks. As shown in Hutchinson & Waters' (1995) research, necessities or target needs are worried about the demand of the target situations, i.e., what the learner needs to know in order to function effectively in the target situation. For instance,

students will be able to use specific vocabulary related to aviation in any circumstance, say, when requesting landing at a busy airport.

Lack refers to the learners' language proficiency in order to help the ESP teacher to know from what starting point learners need to initiate their learning process. As a matter of fact, if the students do not own the necessary skills which are needed to fulfill the requirements of the course, they find themselves unable to cope with a higher level and they tend to quit the course. Therefore, it is essential for an ESP practitioner to know the level each student of the course may have before attempting to do something else.

Moreover, wants are related to what the learner would like to gain from the language course. In addition, Hutchinson & Waters (1995:56) emphasize that a need does not exist independent of a person. It is people who build their images of their needs on the basis of data relating to themselves and their environment. In other words, learners' may have a clear idea of the necessities of the target situation. They also may have an idea of what their lacks are, but the learners' ideas may enter in conflict with the perceptions of the ESP teachers, subject experts, and so forth.

2.2.3 Targeting Students

The target population refers to the people about whom information will be collected for the needs analysis. Richards (2001:57) claims that in language programs the target population will be language learners or potential language learners, but others are also often involved depending on whether they can provide information useful in meeting the purposes of the needs analysis. In other words, the needs analysis can be addressed to people who are either directly immersed in the target context or indirectly related.

For instance, the target population related with this project might include: teachers, students, employers, community agencies, vocational training specialists, ministers of the Secretaria de Comunicaciones y Transportes (SCT), and so forth. The needs analysis used here may include all of them or some of them, depending on how feasible this research project is.

Subcategories from the target population might be also needed to provide different perspectives on needs. For instance, in conducting a needs analysis to aviation students, the following categories of students were included to help determine learners' motivations for attending to an Aviation English Course, dropping an Aviation English Course, or choosing not to take an Aviation English Course.

Moreover, Richards (2001:58) suggests that in determining the target population, an important issue is that of sampling. In addition to what Richards stated, it may follow that sampling involves asking a portion of the potential population instead of the total population and then create a sample that is representative of the total population. A more detailed explanation about the needs analysis conducted for this project is prepared on Chapter 3.

2.2.4 Context

As shown in Richards' (2001:90) research, the goal of the Needs Analysis (NA) is to collect information that can be used to develop a profile of the language needs of a group of learners, in order to be able to make decisions about the goals and the contents of a language course.

For instance, an example to make clear what is about the context is that of an architect. In order to design a house, the first thing the architect needs to do is to set out the specifications of the project, such as, its features, the inhabitants living in the project house, its geographical situation, the number of rooms the project house will have, the materials available, and so forth.

As a result of the previous example, Graves (2000:14) comments that designing a course is pretty much similar to designing a house because you need to have a lot of information in order to design a structure that will fit in the context.

In the opinion of Graves (2000:13), who points out that it is important to know as much information as possible about the context in order to make decisions about the course. Figure 2.3 presents some of the factors related with the context that ESP practitioners must define when attempting to perform a needs analysis; the chart is

divided into four main factors (this selection of factors may vary from one Needs Analysis (NA) to another).

The first factor is related with people or target subjects, students and people related indirectly with the ESP course planned to be designed. Secondary factors such as how many students, their age, their gender, and so forth; are the basis for the specifications as stated in the example of the architect above. Physical settings of the school are also important to mention. Secondary factors such as the size of the school, furniture, surrounding noise, light, equipment, etcetera, take a relevant part into the needs analysis, since they may modify the whole plan for the ESP course.

Factors such as the nature of the course, the teaching resources and the time are mentioned as well because they also play an important role inside the needs analysis. What type of course is the one the teacher is attempting to create? What kind of materials should the ESP practitioner look for and maybe create? What would be the length of each session? Those questions can be perfectly answered thanks to a Needs Analysis supported by the features of the chart.

Charts like the one shown in Figure 2.3 are meant to serve as a basis to adapt them to the ESP practitioner's purposes, but it does not mean that an ESP practitioner needs to get all the information from the chart. In other words, some of the information listed may be more relevant to one context than another. To conclude this topic, we can cite Richards (2001:90) who states that the contexts for language programs are diverse and the particular variables are often key determinants in the success or failure of a program.

| People | | Physical setting | |
|---|----------------|--|-------------|
| <i>Students</i> | | <i>Location of school:</i> | |
| How many | | Convenience setting | |
| Age | | Size | |
| Gender | | Furniture | |
| Culture (s) | | | |
| Other language (s) | | | |
| Purpose (s) | | <i>Classroom:</i> | Light |
| Education | | | Noise |
| Profession | | | Always same |
| Experience | | | classroom? |
| <i>Other stakeholders</i> | | | |
| | School | | |
| | Administrators | | |
| | Parents | | |
| | Funders | | |
| | Community | | |
| Nature of course and institution | | Teaching Resources | |
| Type / purpose of course | | Materials available | |
| Mandatory, open enrollment | | Required text? | |
| Relation to current / previous courses | | Develop own materials? | |
| Prescribed curriculum or not | | Equipment, cassettes, | |
| Requires tests or not | | Video, photocopying | |
| Time | | | |
| How many hours total over what span of time | | Day of week, time of day | |
| How often class meets | | Where fits in the schedule of students | |
| For how long each time | | Students timeliness | |

Figure 2.3. Factors to Consider in Defining the Context.

Source: Kathleen Graves (2000)

2.2.4.1 Society

Richards (2001:93) expresses the view that the second or foreign language teaching is a fact of life in almost every country. In other words, every country has been worried about the importance of learning a foreign language. However, some countries differ from the terms of the roles of foreign languages in the society. That is, the government of each country has its own rules to establish inside the educational department when it comes to Foreign Language Learning.

To exemplify, a comparison between the foreign language teaching experience in Holland and in Mexico will be illustrated. In Holland, the government believes that learning one or more foreign languages is a necessity. Schools are required to teach more than one foreign language and people are used to accepting languages as an everyday life routine. In Mexico, there is much less care about laws and rule for Foreign Language Teaching. The position of foreign languages in the school curriculum is neither strong nor secure. More promotion of foreign language teaching is consequently needed.

Richards (2001:93) declares that in examining the impact of societal factors on language teaching, therefore, the aim is to determine the impact of groups in the community or society. The groups may include:

- Employers
- Business community
- Politicians
- Educational organizations
- Parents
- Citizens
- Students, among others.

2.2.4.2 Project

As reported by Richards (2001:95), curriculum projects are typically produced by a team of people. They may be specialists who know about the subject matter, teachers who are going to be involved in the classroom activity, staff of a teaching institution or external teachers who are required to review the planned project.

Richards (2001:96) explains that projects are completed under different constraints of time, resources, and personnel, and each of these variables can have a significant impact on a project. Moreover, in order to carry out a project, it is essential to pay attention on to these regulations which Richards stated. For instance, the time frame of a project must be carefully planned. In addition to the time, the working dynamics of the team are also essential to the smooth progress of the project. According to Richards (2001:95) if the team members are highly committed to the project and share a common vision, it is likely to encounter fewer difficulties.

2.2.4.3 Institution

A language teaching program is typically created to be applied in an institution such as a university, school, or language institute. In the opinion of Richards (2001:97), different types of institutions create their own “culture”. A teaching institution is a collection of teachers, groups, and departments, sometimes functioning in unison, sometimes with different components functioning independently. Nevertheless, within a school, there may be strong and positive leadership and changes may be received positively.

Some institutions are less strict than others regarding to the program. For instance, in some schools, the textbook is the core curriculum and teachers must use the prescribed textbooks. On the other hand, some schools allow teachers to work from a course guideline which is modified according to the needs of the institution. In addition to the curriculum and the teachers’ adaptation to the program, the physical aspect of the school is also important to be considered. As declared by Richards (2001) who points out some questions which are useful to get some ideas about the physical environment surrounding teachers in a specific context; questions such as those about

the kinds of resources are available for teachers, the availability of a good teacher's reference room, who chooses responsibilities on textbooks and materials, and so forth.

2.2.4.4 Teacher

Teachers can either be good at handling poor resources and materials in the school or not being able to make effective use of teaching materials. Hence, Richards (2001:99) claims that teachers are a key factor in the successful implementation of curriculum changes. In other words, they (teachers) must present and review deeply any change that the curriculum goes through they know either how to react or even apply those changes to their current teaching technique.

When planning a language course, it is quite essential to take into account the kind of teachers the program will depend on so that the course achieves its goals. Richards (2001) suggests that there are several dimensions which make teachers different from each other. The first dimension that Richards (2001) states in his piece of work is language proficiency; since teachers are in charge of a group of learners willing to enhance or gain experience in the target language, teachers are expected to have a good command on the language they are teaching.

The second dimension is teaching experience, referring to the length of time a teacher has been able to perform his or her skills in front of the class. The skills a teacher must have in order to manage the classroom and the class properly are the third dimension in Richards' list. The following dimension is the qualification of a teacher, how well is the teacher qualified and what are the expectations of the institution according to the teachers' qualifications.

Motivation is also one of the dimensions stated by Richards (2001). If the teacher is motivated doing his or her job, so are the learners. The teaching style plays an important role in the dimensions list, since it is the way the teacher approaches topics to the students in order to make them easy and feasible. Every teacher has his or her own beliefs and principles; this is also called ethics and this is also part of the teacher dimensions because they defined our social behavior inside the classroom.

2.2.4.5 Students

Students are the most important factor in developing a course and that is why it is mandatory to get as much information as possible from them. As commented by Richards (2001:101), the focus of getting information from students is to identify potentially relevant factors such as the learners' background, expectations, beliefs, and preferred learning styles. In other words, more information collected from students means the more sophisticated and useful the course will be for them.

Even more, Nunan (1988:176) expresses the view that learners may affect the outcomes of a project in unexpected ways. For instance, a textbook may fit perfectly to the curriculum requirements and provide lots of useful practice, which may not be appreciated by students for several reasons. For example, they are not prepared for the level of proficiency of the book even if the teachers and editors assumed it was designed for the level taught. Thus, the needs of the students must be taken into account because that is relevant to the correct function of the English course.

Conclusion.

This chapter introduced the main topics which were taken as a basis to conduct the research and elicit the main features for the instrument made to get the needs of the students and proposed a basic course for Aviation. The following chapter will contain information about the methodology used to approach the objectives listed in the introductory chapter. It will describe main characteristics such as the context, the participants and the design of the instrument.

CHAPTER III:

Introduction

In this chapter, the methodology used to conduct this research is described. It also provides specific information about the setting, along with the subjects, the instruments, and the procedures followed in the analysis of the data. I used a survey since the purpose of this thesis was to perform a needs analysis in order to create a Basic English for Specific Purposes course for pilots and Air Traffic Controllers.

This research methodology involves collecting information by means of questionnaires or interviews. Hence, a written questionnaire was administered to subjects in order to determine their main needs regarding the specific vocabulary and grammar structure they need to enhance from English language.

Finally, a step-by-step description of the data collecting and analysis procedures followed to develop this research is also given.

3.1 Research Context

Each flight school has the duty to teach its learners everything about how to manage situations when flying a plane at any circumstance. Flight Schools are also responsible for students to gain confidence in the foreign language if the learners are expecting to fly international routes with any airline.

Nevertheless, this is not always one hundred percent true because some flight training centers do not own a curriculum which approaches pilots and ATC controllers to fulfill the needs they face or will face in their professional context. In order for pilots and controllers to feel that their learning is relevant to their professional sphere, it is important that learning is set firmly within the context of aviation.

This research conducted in a flight school thirty minutes away from the City of Puebla. This is a small but effective flight training center since it has contributed into the aviation field by helping pilots and ATC controllers get their license for operations issued by Dirección General de Aeronáutica Civil (DGAC) in Mexico.

Despite the fact that it is a small school compared to those bigger flight schools located in Mexico City, “5 de Mayo Flight Training Center” is well equipped and it also has spacious classrooms where students can practice and learn. Since it is located in between the suburbs of the city of Puebla and Cholula, the school used to be a house but thirty-five years ago it was redesigned and adapted to become very serious, professional, and ultimate-technology flight training center.

However, the school does not follow a curriculum focused on the foreign language which pilots and ATC controllers must apply once they are working. As mentioned in the previous chapters, English is essential as a daily basis in every profession, but when referring to Aviation, the concern of government departments such as The Secretaría de Comunicaciones y Transportes and The Dirección General de Aeronáutica Civil, English is a must in order to get the license.

That is the main reason for doing this research in this school. Since they do not have a curriculum for Aviation English, they do not teach it and the questionnaires applied to students show that learners’ main need is to become proficient in English so they can achieve the requirements expected by national and international regulations.

3.2 Participants

Since this research was conducted in a Flight Training Center in Puebla. The participants of my research were then, students who were majoring to become Pilots, ATC Controllers and Flight Attendants who also were interested in participating in the research since they consider this was a perfect opportunity for them to succeed in their profession.

Unfortunately, as the purpose of the study was to find out the needs of learners majoring in Aviation and Air Traffic Control, only students who were currently enrolled in those programs were selected. Even though, it must be considered for further research: ‘Airline Services’ which also might include flight attendants in future courses.

There were twenty participants who were selected for this research, males and females, studying Aviation and Air Traffic Control, which included almost the totality of

the student population of the school. The learners' age range from eighteen to twenty-six years old, and they were from three different groups. The participants were chosen on the basis of the availability of their schedule and the schedule of the researcher.

3.3 Research Design

For the current study, it was essential to decide whether it would be adopted qualitative or quantitative research methods. Many times we as thesis researchers are not aware of the differences between Qualitative Research and Quantitative Research methods so we mistakenly think the two terms can be used interchangeably.

Brown (1995) describes Quantitative Research as a method which options have been predetermined and a large number of respondents are involved. The measurement must be objective, quantitative and statistically valid. In other words, it's about numbers.

On the other hand, Qualitative Research is collecting, analyzing, and interpreting data by observing what people do and say. Whereas, quantitative research refers to counts and measures of things, qualitative research refers to the meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things.

Qualitative research is much more subjective than quantitative research and uses very different methods of collecting information, mainly individual, interviews and groups observation. The nature of this type of research is exploratory. Small numbers of people are interviewed and a relatively small number of focus groups are conducted. In the following figure (See Figure 3.1), the main characteristics which differentiate Quantitative from Qualitative Research Methods are presented.

Figure 3.1. Characteristics of Quantitative and Qualitative Research.*Source: Adapted from John D. Anderson (2006:4)*

| QUANTITATIVE | QUALITATIVE |
|-------------------------------|---|
| Objective | Subjective |
| Research Questions: How Many? | Research Questions: What? Why? |
| Reduction, control, precision | Discovery, description, understanding, shared interpretation. |
| Measurable | Interpretive |
| Subjects | Participants |
| Hypothesis | Research Questions |

In conclusion, qualitative research generates rich, detailed and valid data that contribute to the understanding of the context but it is important to keep in mind that despite these are two different research methods, it does not imply that they are very opposite from each other. In fact, some elements of both methods can be used together.

This research is mainly designed following the framework for qualitative research method. However, some characteristics from the quantitative method are also been taken into account.

3.4 Instrument

As stated before, data was collected by means of a questionnaire that elicited some background information about the participants, such as age, mother tongue, professional career they are studying at the moment, and their current level of proficiency.

In addition, the questionnaire is divided into three parts, and each one represents an important stage for the investigation and needs analysis. In part A, a general overview of the students selected is presented. As mentioned above background information was elicited from here.

Part B is about general language skills (speaking, listening, reading, and writing) that learners are supposed to practice in a foreign language class. The level of difficulty

these skills represent for learners is also presented within this second part of the instrument.

Finally, part C is about the needs of the learners related to the English Language. For instance, information was elicited about the skills that they need to develop, the frequency with which they need English for their job, the ways in which they use the language, the kind of interaction they face within their professional environment, and the specific vocabulary and communicative events and tasks they need to master for optimal performance in their job.

The needs analysis was developed based on the framework proposed by Richards (2001). It is not as extensive as the model because information needed to be reduced and synthesized for practical purposes in order to increase viability and reliability. Once the questionnaire was designed, it was revised for content validity by the thesis director.

As soon as the thesis director approved it and once the instructions and questions were improved, the questionnaire was finalized and administered on a one-to-one basis to participants. The final version of the instrument can be seen in Appendix 1.

Conclusion

In order to have a broader idea of how the analysis was conducted a narrative will be presented. First of all, the instrument was designed, validated, approved and administered in a one-to-one basis for reliability. The questionnaire was divided into three main parts which were made to elicit basic information and needs from learners.

Then, the questionnaires were applied to twenty learners who are majoring to become pilots and ATC controllers, there were more people interested in becoming participants for the project. However, these people who volunteered were majoring in cabin services and since this research intended to create a syllabus for Pilots and ATC Controllers, flight attendants were not eligible to take part in the current research.

Afterwards, the questionnaires were collected and the data entered in Excel for processing and analyzing. Totals of each response were quantified and turned into graphs to better illustrate the main findings.

Finally, the results were analyzed and some conclusions drawn in order to determine the language needs of pilots and ATC controllers learners studying at 5 de Mayo Flight Training Center. These results are shown in Chapter IV.

CHAPTER IV:

Introduction

As it was stated in the methodology section, the questionnaires administered to twenty Pilots and ATC Controllers students were analyzed, presented and discussed. Specific conclusions about these results and the implications for the course design are also provided.

The results will be presented in the following way. First of all, the results about the participants' English language background are presented. Particular results for each of the three sections will be presented and discussed afterwards. Then, the overall results obtained from the whole questionnaires will be presented and discussed in more detail. Finally, the last section regards the analysis of the learners' language needs.

Additionally, figures, graphs, and charts obtained for each group will be provided for a better understanding and interpretation of the results.

4.1 Participants' Background

This section of chapter four is going to illustrate the background of the participants selected to answer the survey in order to know the needs they have relate it to Aviation English. It is important to know basic information such as, age, major studying, current level of English, and so forth, in order to establish the correct parameters in which the syllabus is being set up. This information as the rest of the information taken from the survey is essential for the creation of the syllabus.

4.1.1 Majors in Aviation

The target school is majoring students in three different subjects, such as, commercial pilot, air traffic controller and cabin crew services. As stated in chapter three, the syllabus is going to be created for Pilots and ATC controllers. Hence, there will be only two main groups of study as shown in Figure 4.1.

As can be seen in Figure 4.1, the majority of participants who took the survey are studying to become Commercial Pilots. Only thirty-five percent (35%) of the

surveyed population is studying Air Traffic Control. This is then, important to know because features for the course such as vocabulary, grammar structures, situations used to clarify and use language are going to be based mainly on fulfilling the needs for Pilots without, of course, leaving behind the needs of Air Traffic Controllers regarding the English Language.

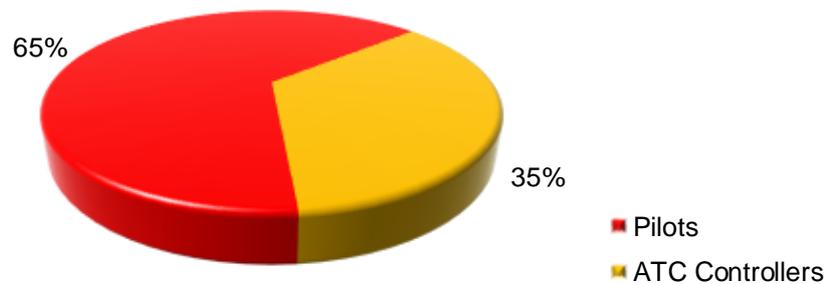


Figure 4.1 Majors in Aviation

4.1.2 Age

The participants' age ranges from eighteen to twenty-six years old. Age was not accurately asked since some students may feel uncomfortable by saying their age. Then, specific age ranges were selected to locate students in between.

As shown by Figure 4.2, seventy percent (70%) of the surveyed students' age ranged from eighteen to twenty years old. Fifteen percent (15%) of the people surveyed were ranked from twenty-one to twenty-three years old. Ten percent (10%) of the total belonged to those above twenty-six years old. And the minority percentage of the population were among twenty-four to twenty-six years old; that is, only the five percent (5%).

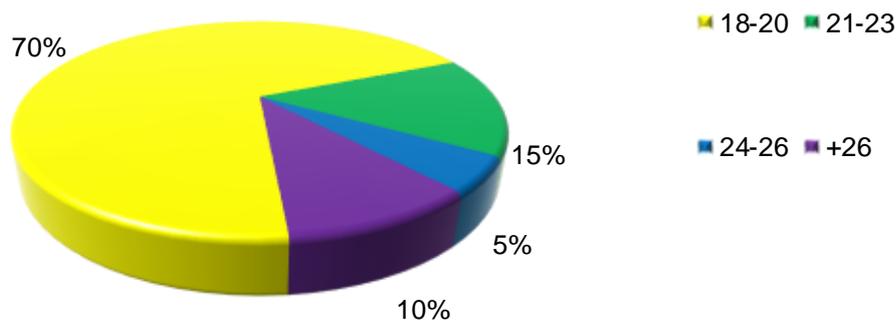


Figure 4.2 Participants Age

4.1.3 Mother Tongue

The participants' mother tongue was an important item for the development of the survey since special emphasis must be taken into account in order to create the syllabus. I did not expect to have a participant whose mother tongue was different than Spanish. It was surprising to know there was a learner whose mother tongue is English. However, the participant gladly accepted to take the survey since he stated it would be a great idea to expand knowledge and practice vocabulary which will be sort of new for everybody.

Then, in Figure 4.3 it is shown that ninety-five percent (95%) of the students' mother tongue is Spanish. Only one participant who represents five percent (5%) claims that his mother tongue was English.

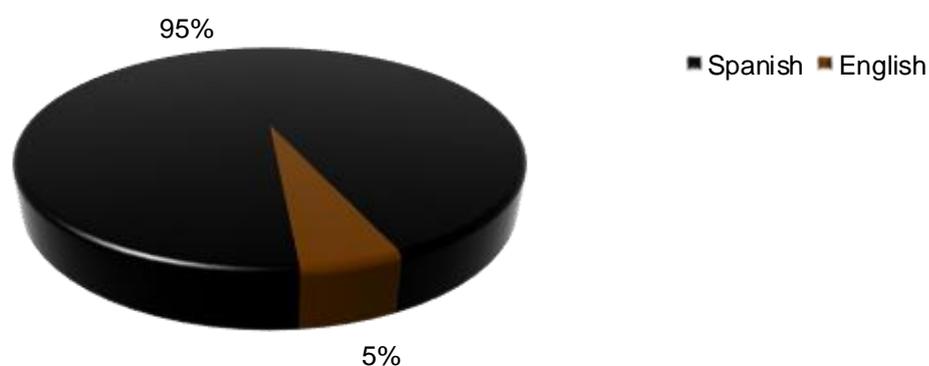


Figure 4.3 Participant's Mother Tongue

4.1.4 General English Performance

This item of the survey was important because it showed the level of proficiency that participants believe they have. According to their responses, it will be much easier to create a syllabus based on what they know from General English.

Figure 4.4 shows the level of proficiency in the language according to the number of participants who took the survey.

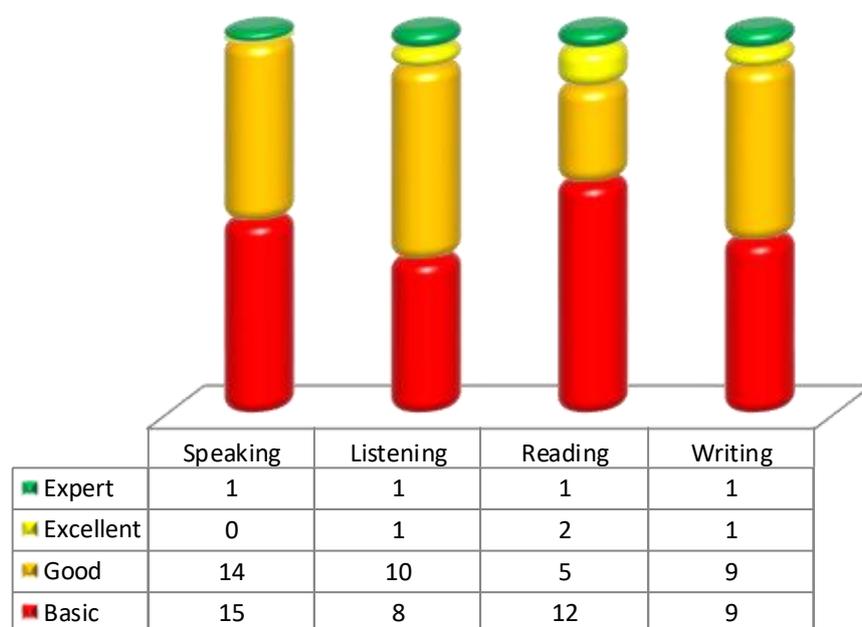


Figure 4.4 General English Performance

As shown in Figure 4.4, there was only one participant who believes his performance when using English was 'expert' in all four skills. However, most of the participants showed basic performance with the four skills. Fifteen (15) students claimed they were basic at speaking, eight (8) at listening, twelve (12) at reading, and nine (9) at writing.

These results give an idea about the general performance of pilots and air traffic controllers when they use English either at school or in their near future profession. Since this syllabus is totally focused on specific purposes regarding Aviation English, General English is only used as a based to measure the strength in terms of language knowledge and performance that will be used throughout the course.

4.1.5 Aviation English Performance

A simple question was asked in the survey to know about the level of performance in Aviation English that students think they have so far: “In a simple scale from 0-100%. Please check your level of Technical English related to Aviation you have so far.”

The purpose for this item was to place the course in a real context where students can commence their instruction from what they know up until now. The following figure illustrates better the participants’ answers regarding to that question.

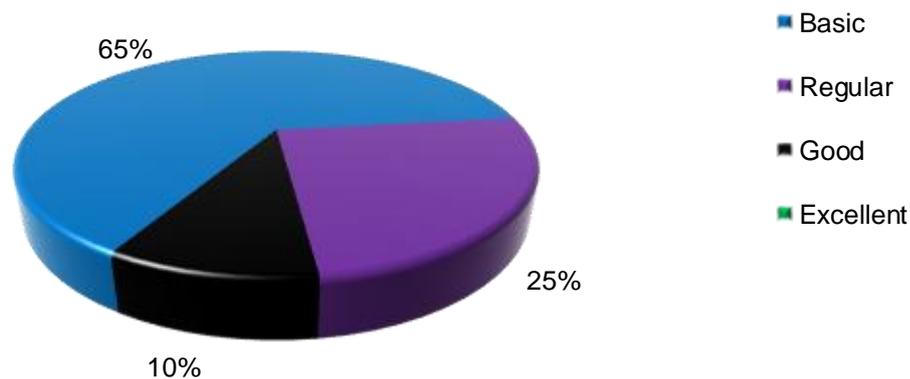


Figure 4.5 Aviation English Performance

As it is shown by Figure 4.5, sixty-five percent (65%) of the surveyed participants demonstrated basic knowledge for terminology related to their field of study. Twenty-five percent (25%) believe they have regular commands regarding Aviation English and only ten percent (10%) which means that only two (2) participants declare that they have good commands in Technical English. None of the participants showed excellent commands in terms of the technical vocabulary.

4.1.6 Aviation English Expectations

This last question from part A has a lot of significance for the research. It shows the level of importance that students consider that Aviation English has in their professional and academic life: “In a scale from 1 to 5, where 5 is the less important value. ¿How important do you consider that English will be after graduating from the Flight Training Center and once you are working already for a national or international airline?” The stems used for the current item were selected according to the four skills and how are they going to be useful or not. Answers from this item will be taken to

create a very detailed syllabus that satisfies both Pilots and Air Traffic Controllers needs regarding to the language skills they will be using more. The following figure will explain what it was stated. Additionally, an idea about what would be the main language skills to work with will also be given.

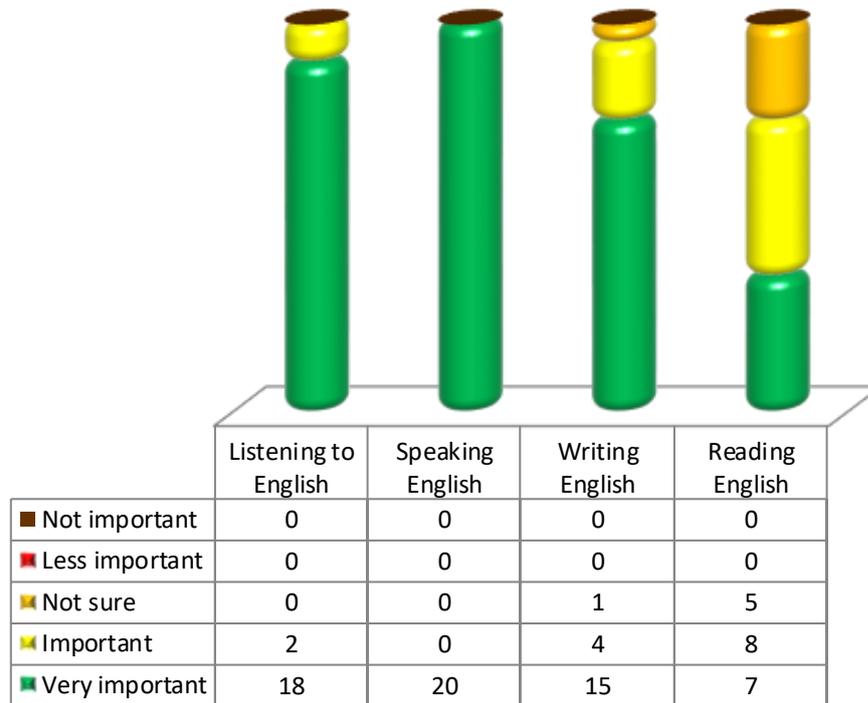


Figure 4.6 Aviation English Expectations

What it is shown by Figure 4.6 is very remarkable. Students are more interested in mainly two language skills, one which is productive and the other one receptive. There is also another language skill which was also selected to be placed in the third position of the top four.

Students are more worried about mastering speaking simply because they will be in constant communication with either traffic control or pilots flying a plane. Moreover, mistakes when using English will not be accepted by any means or it could represent a very serious problem which may bring severe consequences. After speaking the second language skill most chosen was listening, and that is very clear decision since speaking and listening are correlated skills. The third chosen skill was reading and finally the last skills they are interested in mastering is writing.

4.2 General Language Skills

This section of chapter four points out general language skills that pilot and air traffic control students believe they have. According to what they answered, deeper information relevant for the making of the course was elicited. Information such as the level of proficiency where the course should start, what do ESP practitioners should expect from learners regarding the language skills that these students have so far, and what would be the level of vocabulary they could handle once the course starts running, among others.

4.2.1 Speaking

Speaking is one of the most important language skills to learn and one of the most difficult to master as well. Students are conscious about it and they express their feelings about this first language skill. As it is shown by Appendix 1, items from B1.1 to B1.8 show certain scenarios where difficulties related to learning and using speaking are set.

A more detailed explanation is given in Figures 4.7 to 4.13. Item B1.1 (Figure 4.7) expresses the difficulty of giving oral presentations.

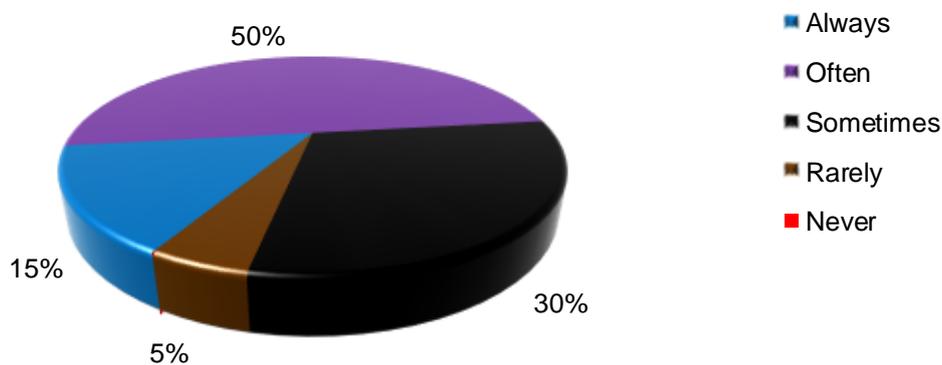


Figure 4.7 Oral Presentations (B1.1)

Item B1.2 (Figure 4.8) is about wording what the learner wants to say.

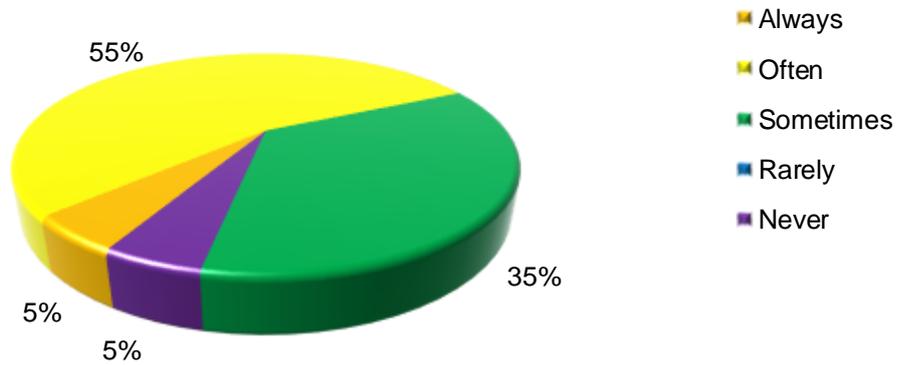


Figure 4.8 Wording ideas (B1.2)

Item B1.3 (Figure 4.9) expresses the view of worrying about saying something in case you make a mistake in the target language.

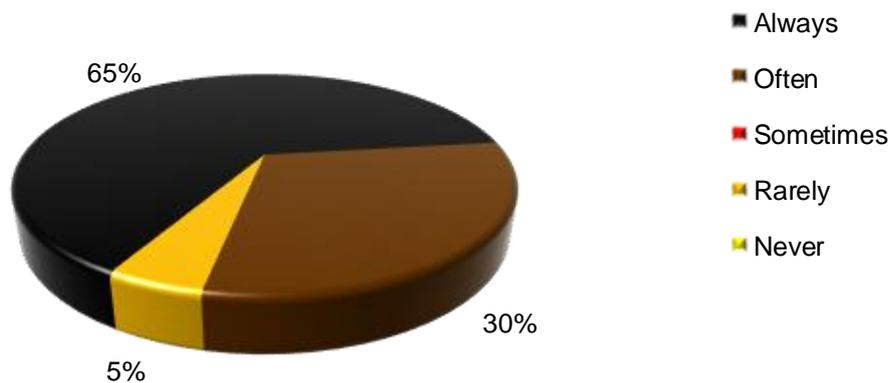


Figure 4.9 Saying something different by mistake (B1.3)

Item B1.4 (Figure 4.10) talks about not knowing how to say something in English.

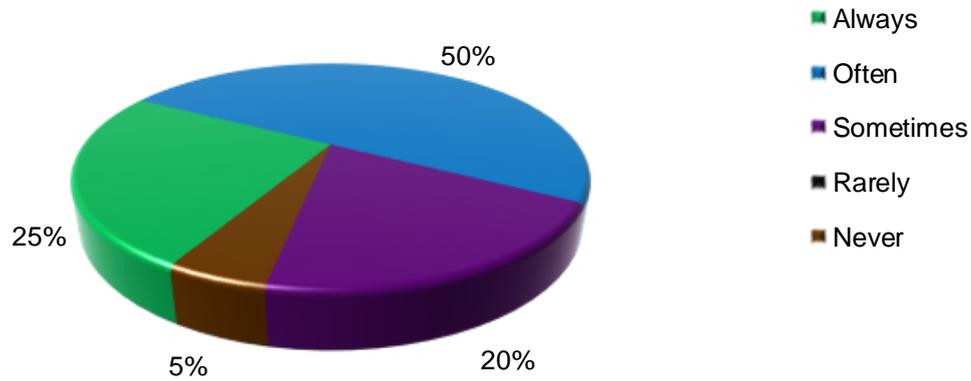


Figure 4.10 Lack of lexicon (B1.4)

Item B1.5 (Figure 4.11) is related about not knowing the best way to say something in English.

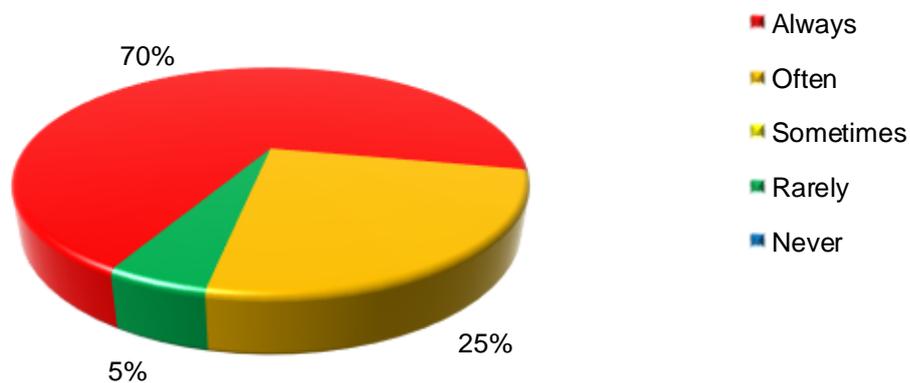


Figure 4.11 Different uses of speech (B1.5)

Item B1.6 (Figure 4.12) reflects on the difficulty with the learner's pronunciation of words.

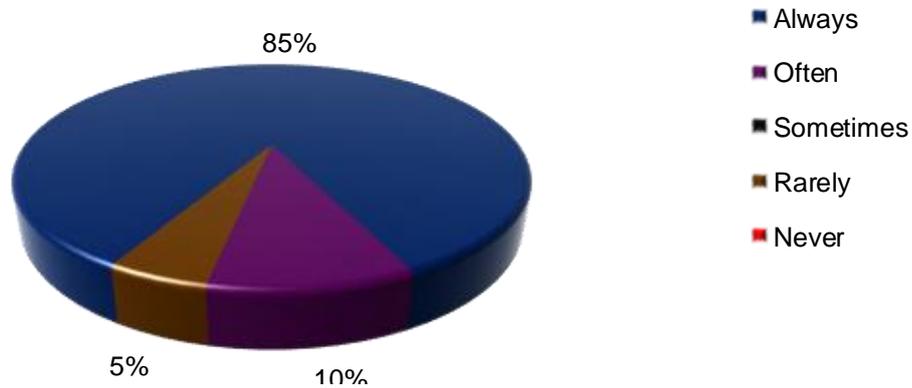


Figure 4.12 Pronunciation (B1.6)

Item B1.7 (Figure 4.13) talks about the difficulty to enter discussion.

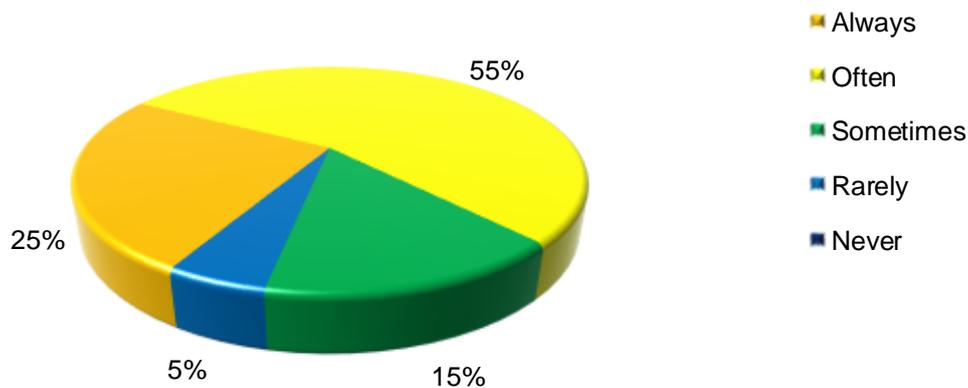


Figure 4.13 Entering discussion (B1.7)

And finally, item B1.8 is an open-ended question which invites participants to give another possibly scenario where they can also find difficulty when learning or practicing speaking. It is important to state that the most common response in item B1.8 was related to that with nervous at the moment of speaking aloud. For a better explanation about the participants' answers, the following figures are going to be presented.

4.2.2 Listening

According to Figure 4.6, listening is the second top language skill that pilots and air traffic controllers want to master. Hence, the second section of part B of the instrument tries to elicit information about listening skills that learners have acquired so far and how difficult it is for them to practice it until master it. As it is shown by Appendix 1, items from B2.1 to B2.8 show certain scenarios where difficulties related to practicing listening are set.

A more detailed explanation is given in Figures 4.14 to 4.20. Item B2.1 (Figure 4.14) expresses the difficulty of understanding lectures.

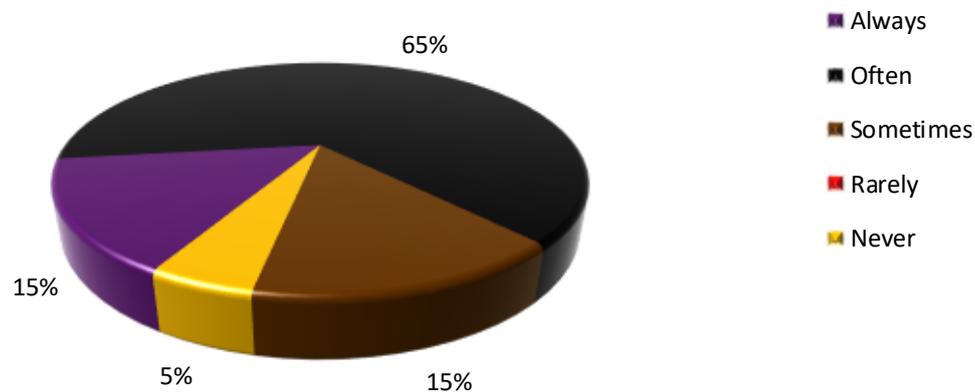


Figure 4.14 Understanding lectures (B2.1)

Item B2.2 (Figure 4.15) is about having troubles when taking effective notes from what it is being said in an English conversation.

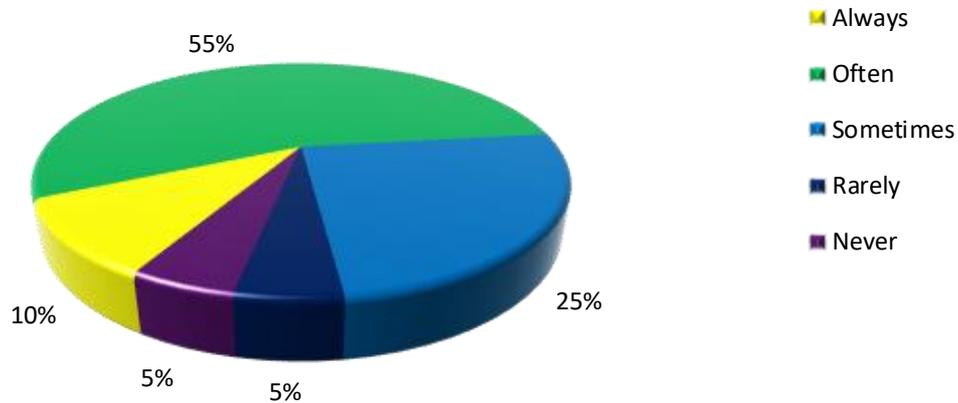


Figure 4.15 Taking effective notes (B2.2)

Item B2.3 (Figure 4.16) expresses the view of asking your teacher about what has been said in class.

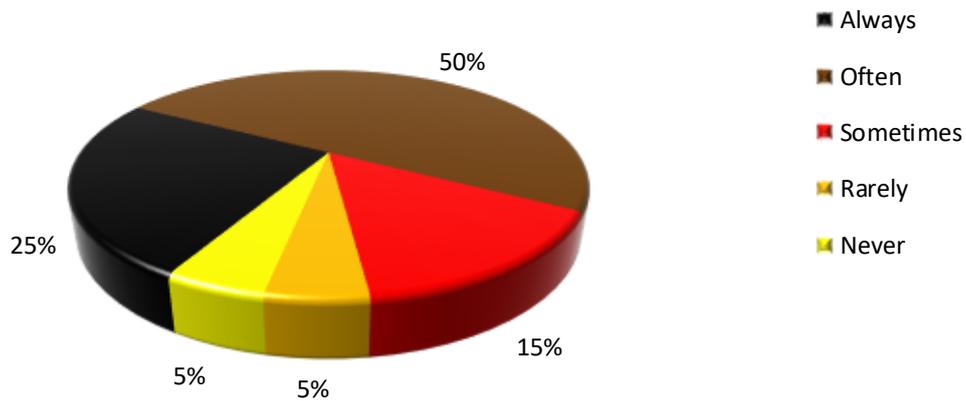


Figure 4.16 Asking for information twice (B2.3)

Item B2.4 (Figure 4.17) talks about having issues to understand long conversations in English.

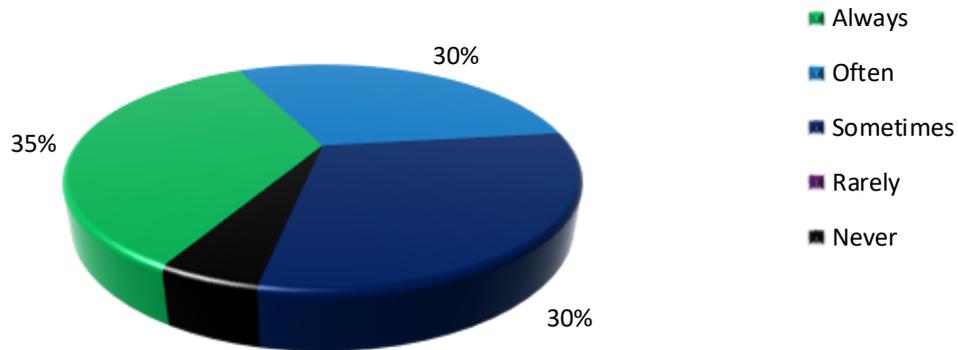


Figure 4.17 Understanding long conversations (B2.4)

Item B2.5 (Figure 4.18) is related about having troubles understanding spoken instructions.

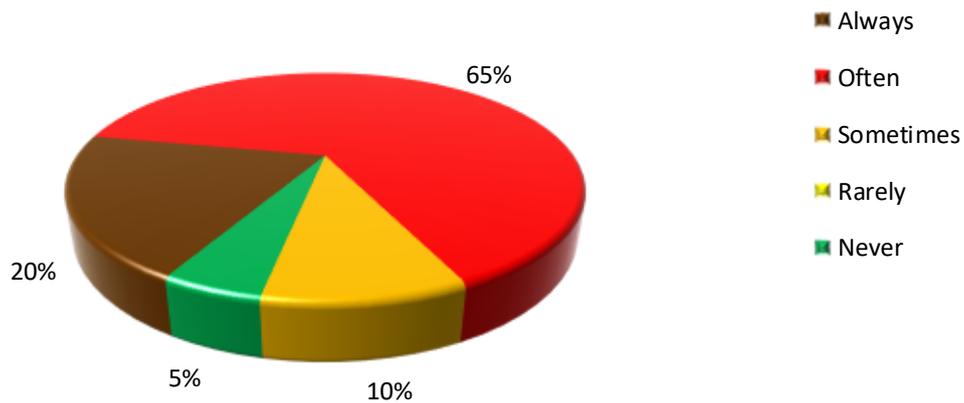


Figure 4.18 Understanding spoken instructions (B2.5)

Item B2.6 (Figure 4.19) reflects the difficulty to catch the main element from a conversation.

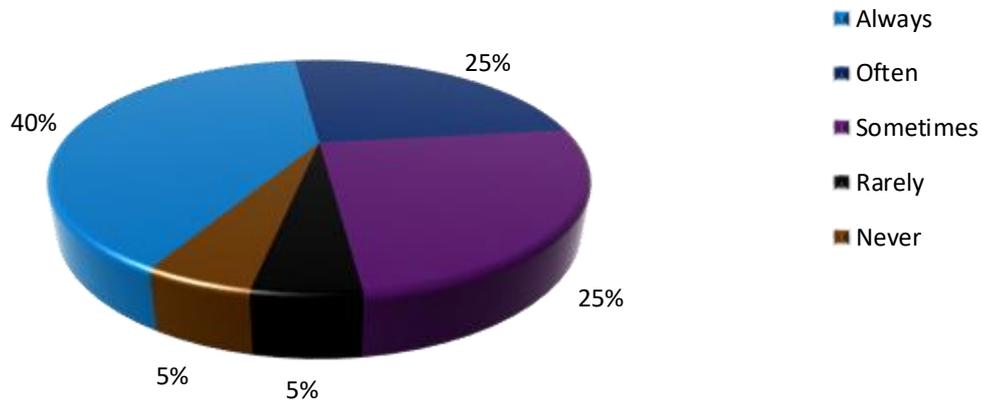


Figure 4.19 Main Element of a Conversation (B2.6)

Item B2.7 (Figure 4.20) talks about the difficulty of comprehending aeronautical phraseology in English.

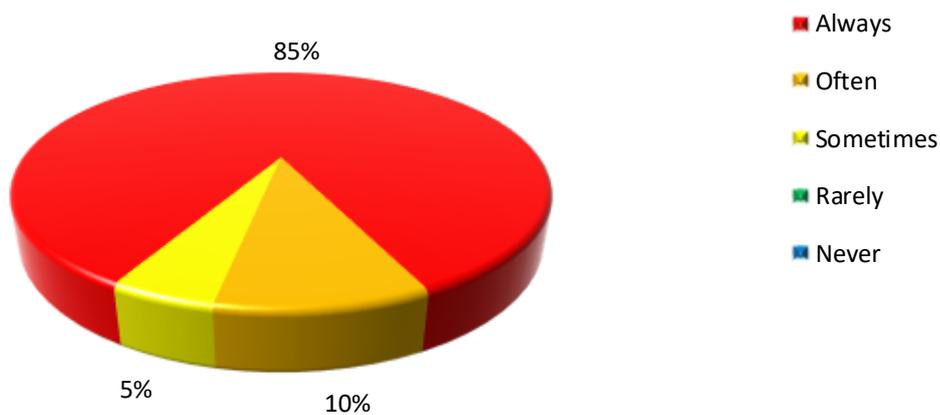


Figure 4.20 Comprehending aeronautical phraseology (B2.7)

And finally, item B2.8 is an open-ended question which invites participants to give another possibly scenario where they can also find difficulty when practicing listening. It is important to state that there was no response in any of the twenty questionnaires for item B2.8. For a better explanation about the participants' answers, the following figures are going to be presented.

There is also a special section regarding listening that emphasizes onto the reasons that students give when they try to have a precise comprehension about what English speakers say. Items from B3.1 to B3.5 gives learners special motives that avoid them to have good commands in listening comprehension.

As shown in Appendix 1, item B3.1 expresses that people and students' pace and rhythm at the moment of speaking is the main reason for some learner not to have good commands of comprehension. Item B3.2 is about the pitch and the tone of the speakers. Item B3.3 refers to the speakers' accent and pronunciation. Item B3.4 is related to the noise environment that surrounds both speaker and listener.

And finally, item B3.5 is an open-ended response which invites participants to give another possibly reason where they can also find difficulty when listening to English. It is important to mention that there was no response in any of the twenty questionnaires for item B3.5. A better explanation about the participants' answers can be found in Figure 4.21.

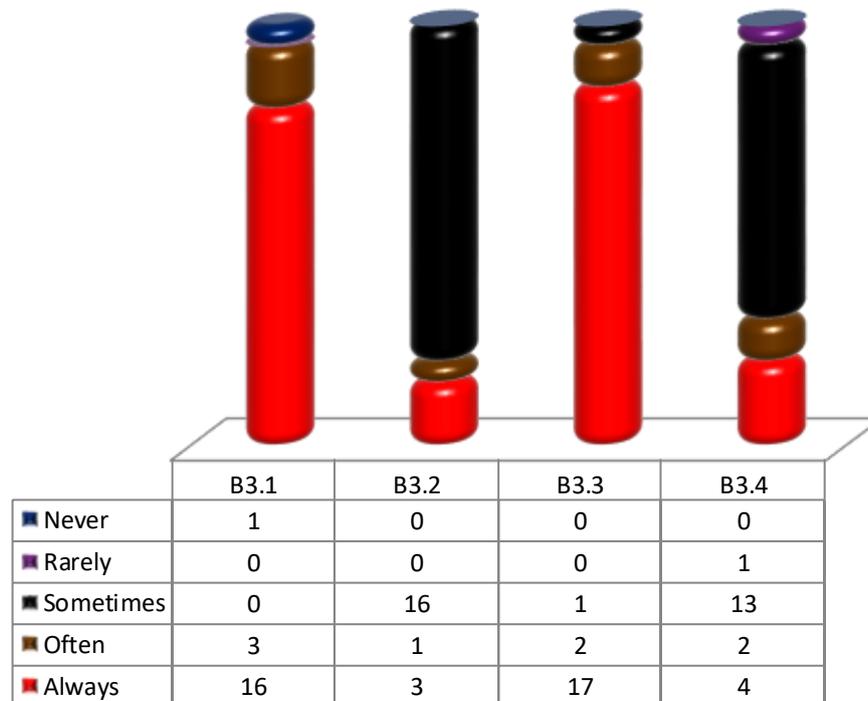


Figure 4.21 Reasons for troubles in Listening

According to Figure 4.21, participants who took the survey agreed that speakers' pronunciation and accent is the main reason for learners to have issues in listening. The second reason is that of speakers' pace and rhythm. Finally, the third and fourth reasons are speakers' pitch and tone, and noise environment respectively.

4.2.3 Writing

Participants who took the survey agreed that writing was one of the least language skills to practice in the course but it is still important for their professions. According to Figure 4.6, writing is the third top language skill that pilots and air traffic controllers prefer to practice. Hence, the following section of part B of the instrument tries to elicit information about writing skills and how difficult it is for them to practice it. As it is shown by Appendix 1, items from B4.1 to B4.8 show certain contexts where difficulties related to practicing writing are set.

A more detailed explanation is given in Figure 4.22. Item B4.1 expresses the importance and the difficulty when using punctuation and correct spelling. Item B4.2 is about structuring sentences. Item B4.3 expresses the view of using the appropriate vocabulary. Item B4.4 talks about expressing ideas appropriately. Item B4.5 is related to developing ideas when writing English. Item B4.6 reflects the fact to express what the learner wants to say clearly. Item B4.7 talks about completing written tasks, for example, taking exams. And finally, item B4.8 is an open-ended response which invites participants to give another possibly context where they can also find the level of importance and difficulty when practicing writing.

It is important to state that the most common response in item B4.8 in almost all the twenty questionnaires was related to that with writing specific English terminology in Aviation. For a better explanation about the participants' answers, the following figures are going to be presented.

Figure 4.22 Level of Importance and Difficulties faced in Writing Skills

| ITEM | MI | I | SI | INS | Siempre | Seguido | Algunas veces | Nunca |
|------|----|----|----|-----|---------|---------|---------------|-------|
| B4.1 | 0 | 8 | 10 | 2 | 0 | 3 | 17 | 0 |
| B4.2 | 1 | 11 | 5 | 3 | 0 | 6 | 12 | 2 |
| B4.3 | 19 | 1 | 0 | 0 | 2 | 15 | 3 | 0 |
| B4.4 | 0 | 3 | 7 | 10 | 0 | 15 | 4 | 1 |
| B4.5 | 2 | 3 | 8 | 7 | 4 | 7 | 9 | 0 |
| B4.6 | 20 | 0 | 0 | 0 | 8 | 10 | 1 | 1 |
| B4.7 | 19 | 1 | 0 | 0 | 17 | 3 | 0 | 0 |

Figure 4.22 shows the results of the section which was about writing. It can be seen that Figure 4.22 was divided in two main sections, orange section refers to the level of importance that items have over the learners. Moreover, it can also be seen that learners consider very important items B4.3, B4.6, and B4.7 in their professional and academic career. Appropriate vocabulary, clarification, and completing written tasks are the most important contexts to work for the learners.

Additionally, yellow section is about the difficulty that learners find whenever they need to perform these writing sub skills. As can be seen in Figure 4.22, the most difficult task for learners to perform is about completing written tasks in English. Then, it follows using the appropriate vocabulary, expressing ideas appropriately, and clarification. Finally, the tasks with less level of difficulty for learner are using punctuation and correct spelling, structuring sentences, and developing ideas when writing English.

4.2.4 Reading

Reading was the least language skill for participants to practice in the course which is going to be held as a product of this project. According to Figure 10, reading is the last top language skill that pilots and air traffic controllers prefer to practice. That is why, the following section of part B of the instrument tries to elicit information about reading skills and how difficult it is for them to practice it. As it is shown by Appendix 1, items from B5.1 to B5.8 and B6.1 to B6.6 show certain contexts where difficulties related to practicing reading are set. A more detailed explanation is given in Figures 4.23 and 4.24.

As shown by Figure 4.23, there is a stipulated commitment in behalf of the learners to read some material which is part (or at least is going to be part) of their professional career. The list of materials to be read for learners was chosen according to what I could infer from their context. Nevertheless, there is an item in this section which lets students write any other reading material that I could miss from the list. Item B5.1 represents articles about Aeronautics. Item B5.2 is about flight manuals. Item B5.3 represents textbooks. Item B5.4 is about selected chapters from books. Item B5.5 represents Flight Logbooks. B5.6 is about cartographies. Item B5.7 represents Air Navigation Procedures. And finally, item B5.8 is an open-ended response which invites participants to give another possible context where they can also find and difficulties when reading it.

It is important to state that the most common response in item B5.8 in almost all the twenty questionnaires was related to reading and understanding navigation charts. For a better explanation about the participants' answers, Figure 4.23 was prepared to show the commandment stipulated for reading materials. As can be seen by the figure, 96% of the surveyed population agreed that most of the reading materials used in the school were mandatory; it could be inferred to be obvious since aviation is a very demanding career in terms of safety and procedures. Only a very small quantity of the surveyed population answered negatively to the question.



Figure 4.23 Commandment for aviation reading materials

Additionally, I was interested in finding out the level of difficulty that learners were facing when they attempted to read the list of reading materials set before. Hence, a second question regarding the frequency for them to have issues when reading was

also asked. Then, Figure 4.24 shows the frequency of difficulties that learners have when reading. As can be seen in the figure, the majority of the students show a high level of difficulty since their common response for the level of difficulty of reading was set on “often”. 13% of the population agreed that their difficulties to read and understand come from time to time and 26% of the surveyed population have rarely experienced troubles when reading texts in English related to Aviation.

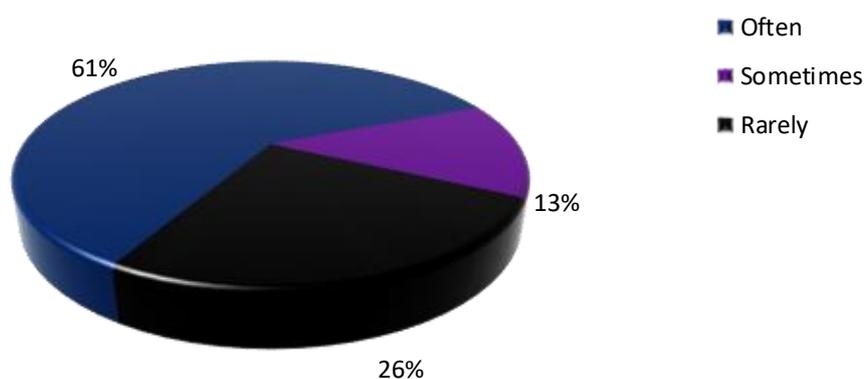


Figure 4.24 Difficulties when reading Aviation materials

The last section of part B of the instrument tries to elicit information about reading skills that learners have acquired so far and how difficult it is for them to practice it until master it. As it is shown by Appendix 1, items from B6.1 to B6.6 show certain scenarios where difficulties related to practicing reading are set.

A more detailed explanation is given in Figures 4.25 to 4.29. Item B6.1 (Figure 4.25) expresses the difficulty of understanding the main point of the text. Item B6.2 (Figure 4.26) is about looking through the text quickly in order to locate specific information (scanning). Item B6.3 (Figure 4.27) expresses the view of guessing the unknown words from context. Item B6.4 (Figure 4.28) talks about having issues to understand specialist vocabulary in a text. Item B6.5 (Figure 4.29) deals with troubles in general comprehension.

And finally, item B6.6 is an open-ended response which invites participants to give another possibly scenario where they can also find difficulty when practicing reading. It is important to state that there was no response in any of the twenty

questionnaires for item B6.6. For a better explanation about the participants' answers, the following figures are going to be presented.

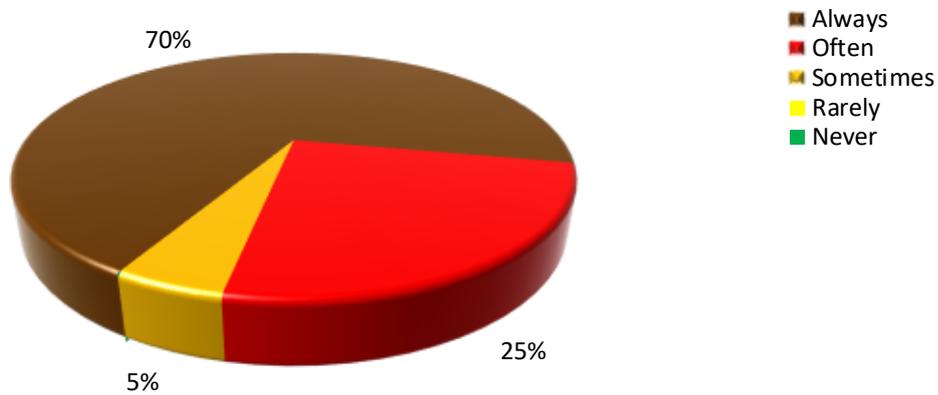


Figure 4.25 Understanding the main point of a text (B6.1)

Figure 4.25 shows that 70% of the surveyed population have always trouble understanding the main point of any text in English. 25% have issues concerning to the same issue but only often. Finally, 5% that is only one participant showed issues from time to time.

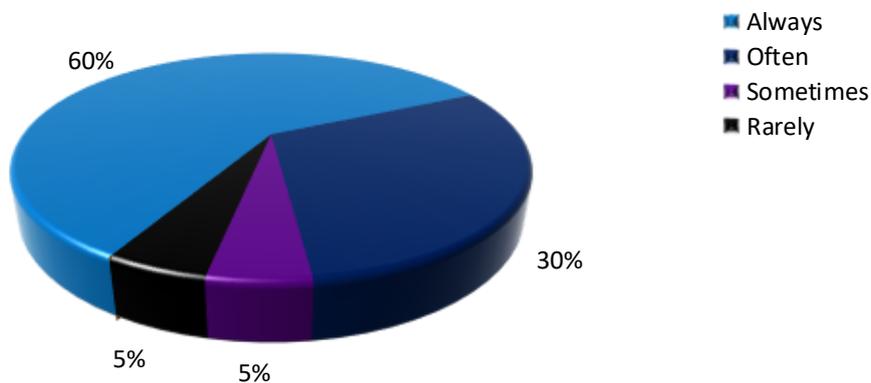


Figure 4.26 Scanning (B6.2)

Figure 4.26 show that the majority of students have difficulties locating specific information by reading the text quickly, in other words, by scanning. It is essential to

only get focused in this part of the graph since the course needs to have a specific topic related to scanning for essential information in any material related to Aviation.

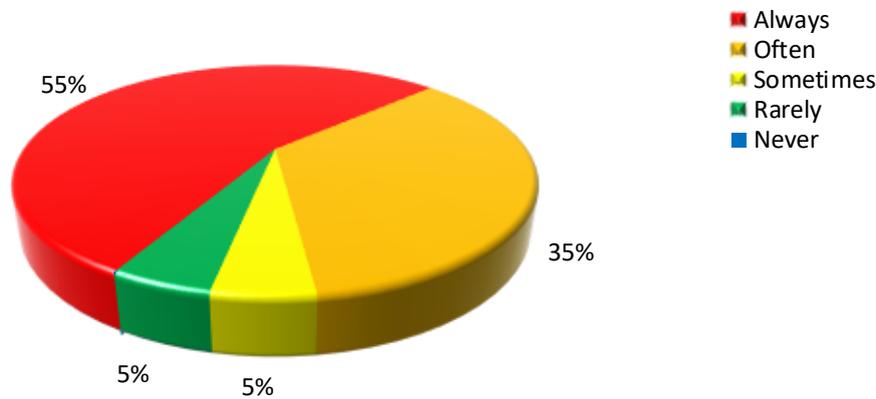


Figure 4.27 Guessing unknown words from context (B6.3)

The Figure 4.27 is a clear example of a challenging obstacle when talking about learning vocabulary. Guessing unknown words from context should be an ability well developed by pilots and ATC controllers since they are going to be in constant communication, their words must be very specific either when sequencing airplanes in a busy area or when reading back what the Air Traffic Control has just said. Figure 4.27 show that more than the half of the surveyed population, that is 55%, has issues in guessing the meaning of certain words through the context where they are written.

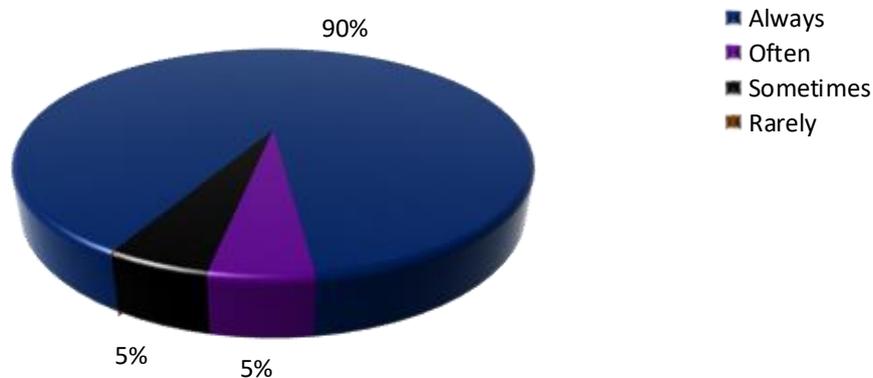


Figure 4.28 Specialist vocabulary (B6.4)

As in any other profession which has its very specific terminology, Aviation has it too and it is mandatory for pilot and air traffic controller students to know every single essential every day at work vocabulary since they are responsible for thousands of travelers' lives. One wrong used word in any situation during the flight can carry tremendous and serious damages. That is the reason of item B6.4, as it is shown by Figure 4.28, 90%, which is almost the whole bunch of surveyed students were facing troubles in understanding Specific Vocabulary related to Aviation in English.

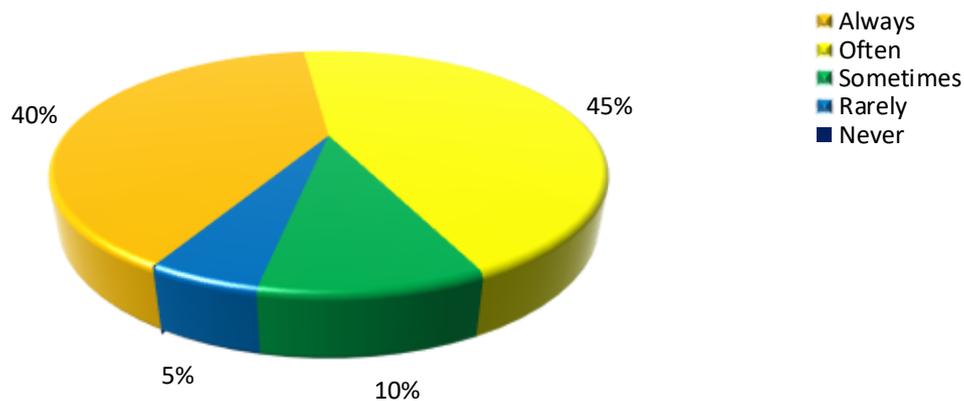


Figure 4.29 General Comprehension (B6.5)

Some texts are difficult to understand even for trainers since English is not our native tongue. However, students and ESP practitioners must be one step forward to achieving at least a good comprehension in either academic and specific purposes texts. Figure 4.29 claims that 40% have issues in understanding the text in a general manner. Then, the course which is going to be created must be also carefully planned in order to have a section for students to review and practicing general comprehension of texts.

4.3 Pilots and Air Traffic Controllers' Needs

The last part of the instrument is that referred to Part C. Part C is about the learners' needs registered and then processed in order to have a strong structure which is going to be useful for the built up of the Basic English for Specific Purposes Course.

The needs were selected according to a deep review of materials related to Aviation in English and by talking to some students who advised the researcher to

work with those situations, skills, and abilities which are difficult to master for them. The product of this small research was a set of thirty-six (36) situations and abilities which was part of the final section of the instrument (items from C.1 to C.36). The list of situations and abilities can be analyzed, read, and found in Appendix 2. The following figure will show the results obtained from the participants who chose from the list the situations and abilities more useful for them so that they can be taken into account to build up the syllabus for Aviation English. As it is shown by Figure 4.30, the majority of students agreed that most of the thirty-six situations and abilities enlisted in Appendix 2 should be considered when building up the syllabus. This result was considered to be the most important for the Global Results of the Thesis since it shows what students really need and want to be taught from ESP practitioners regarding their academic and professional context.

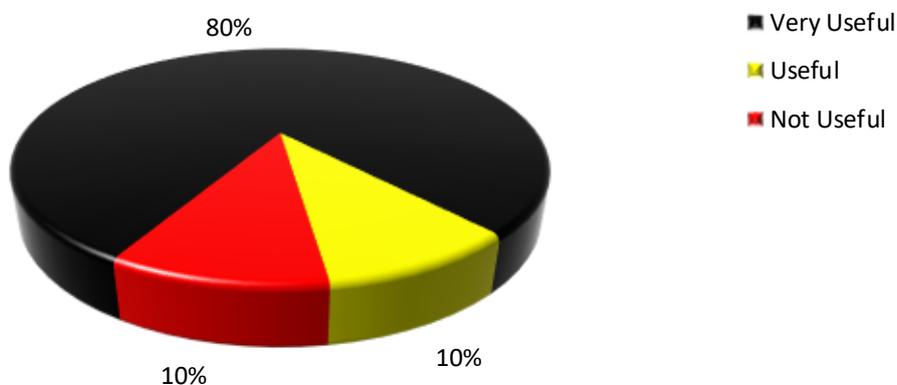


Figure 4.30 Pilots and ATC Controllers' needs

Additionally, there was a final item which was not included in the list, since item C.37 is an open-ended response which invites participants to give another possibly ability to perform either during the course or once they are immersed in their work environment. It is important to state that there was no response in any of the twenty questionnaires for item C.37. For a better review of the instrument it is advisable to check Appendix 1 and in order to review the set of abilities please refer to Appendix 2.

Conclusion

In conclusion, the course should have had written tasks for learners to handle. Nevertheless, these tasks should have not taken over the whole course but just some of it. However, tasks such as, using vocabulary related to Aeronautical Phraseology, and taking an exam should be fully covered since the main purpose of the course is to prepare pilots and ATC controllers to take the ICAO English Language Proficiency for Pilots and Air Traffic Controllers. A more detailed conclusion of the whole project is being presented in chapter V which refers to the recommendations and conclusions for the topic presented.

CHAPTER V:

Introduction

The present chapter will deal with conclusions found in this research. First of all, a summary of the results and their main highlights are presented, a brief answer for the research question will be also given. The implications of the study will also be explained. Additionally, the limitations of the research will be listed here and finally some suggestions for the improvement of the syllabus and suggestions of what can be done for further researchers within this area of study.

5.1 Summary

The results of the needs analysis performed to pilot and air traffic controller students of “5 de Mayo. Flight Training Center” provided relevant information for the design of a basic ESP course. First of all, the importance of using English for the subjects was confirmed. Although most of the students had taken English courses before at high school, these courses were focused onto a different approach more than eliciting their professional needs presented previously. In addition, when asked about the extent to which their English was sufficient to perform their academic and professional work, most of them rated their proficiency as rather low. Only one participant stated that the English he had was appropriate for the tasks required in the job.

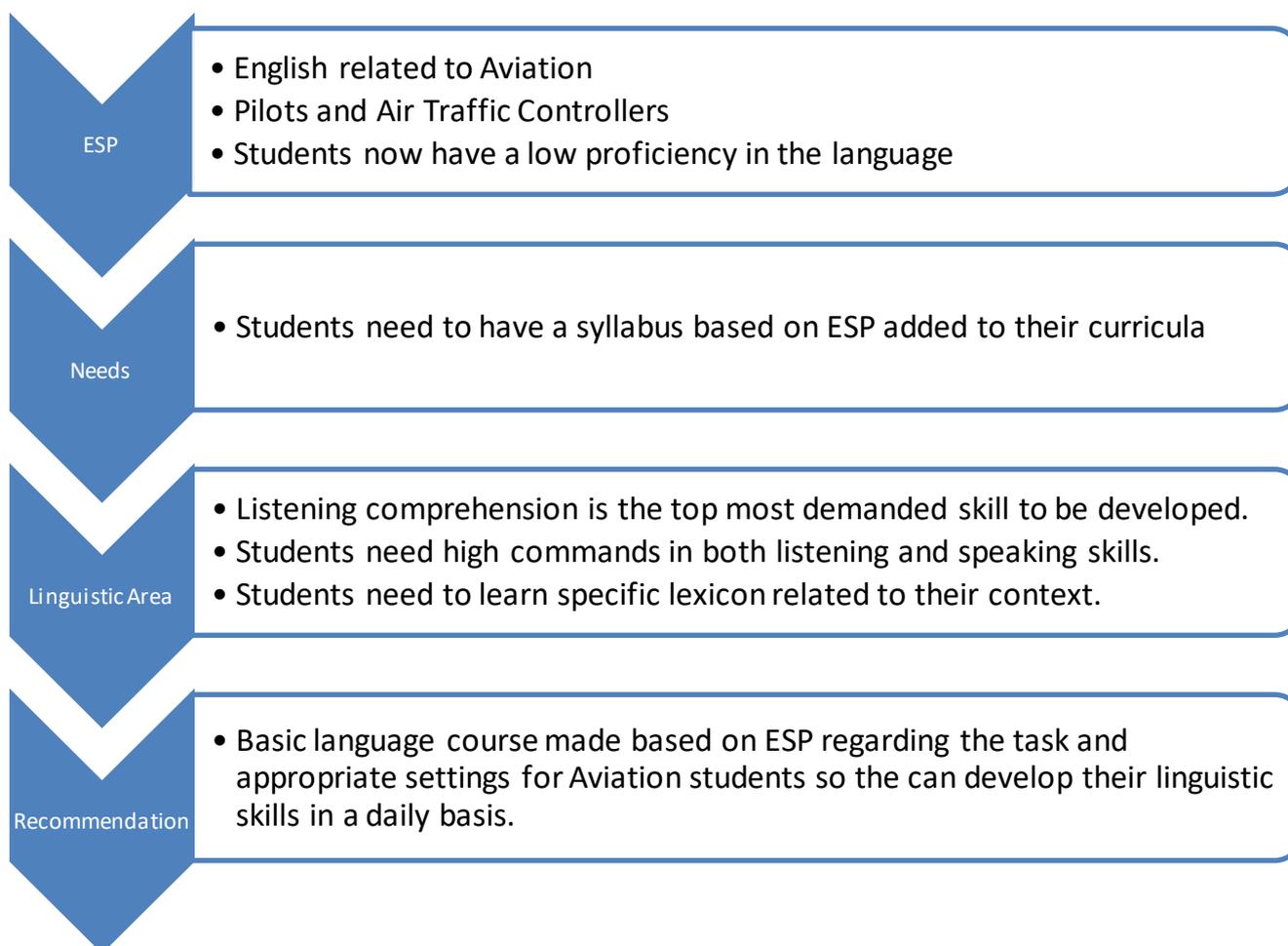
Moreover, the participants argued that the institution does not own a special syllabus and a practitioner to teach students Aviation English. It can also be seen that the frequency of English used in their professional environment is high. Thus, the need of a syllabus for a basic ESP course for pilot and air traffic controller students is vital, and that was the main objective conducted in this paper.

Regarding the participant’s language needs, it was found that even if their listening comprehension skill was highly developed, their last developed skill was speaking. This suggests serious problems since pilot and air traffic controller position

requires a very high use of both listening and speaking skills. Therefore, it was concluded that the course to be planned needed to emphasize both skills and work on reading and writing to a lesser extent.

As expected, the results indicated that most students ought to learn English for communication between air traffic control to airplanes and vice versa, they also need to learn specific communication related to aviation. In this regard, the course should include basic communicative functions appropriate for the situations related to their environment as well as adapting every lesson in order to make technical vocabulary one of the main priorities.

Finally, the part that deals with the specific communicative events and tasks that subjects need to master showed that the most frequently-occurring events and tasks were pre-flight, taxiing, lining up, taking off, climbing, cruising, descending, approaching, and landing. To a lesser extent, participants also showed needs to be able to read materials related to Aviation, such as flight manuals, flight logbooks, cartographies, air navigation procedures, and navigation charts. The tasks that were rated least important by participants were those related to communicative approach such as, taking a cab, using air trams, talking to friends, and having occasional conversations with passengers. Therefore, the highly required tasks should be emphasized in the program, whereas the others should also be considered, but to a lesser extent.



5.2 Implications

This research pointed out the present need of using the English language in different fields and occupations. In other words, just as pilots and air traffic controllers need specific commands and a program that really fulfills their language in their work environment instead of general English courses, there are also doctors, engineers, nurses, waiters and waitresses, politicians, tour guides, businessmen, and multiple other occupations that would benefit from English for Specific Purposes.

Therefore, the field is open for new kinds of projects that will no doubt to enrich the English Language Teaching area. This work only performed a little part of the work that stills need to be complemented with the design of a more detailed program for more people immersed in this professional context.

5.3 Limitations of the Study

This present research intended to fulfill a perceived need of pilot and air traffic controller students in “5 de Mayo Flight Training Center” regarding a specific English course for their job. For this purpose, survey methodology was used through a Needs Analysis performed to twenty (20) pilot and air traffic controller students in such school.

However, the study could not possibly be comprehensive because many components in the needs analysis need to be worked out separately based on the students’ responses since they are very extensive in meaning. Therefore, the project only covers a significant but incomplete part of the greater project of curriculum and syllabus development. However, the study does provide the bases for that further work.

Similarly, the sample could have been more significant if more flight schools and maybe airports were included but due to economic factors, time constraints, and permission issues, it was not possible to collect a larger sample.

Finally, as the results of the questionnaires only express the participants’ perceptions and opinions, there is a certain level of unreliability. However, this level may not be significant enough as to make a contrasting difference in the results obtained.

5.4 Directions for Further Research

As I previously stated, this project only provided the basis of a larger project of curriculum development for English for Specific Purposes. However, further work is necessary. First of all, a complete course needs to be developed, taking into account levels from basic to expert, as well as taking pilots and air traffic controllers to level 6 of ICAO Language Proficiency Standards.

In addition, decisions about methodology, materials, testing, and evaluation must also be made and designed, as well as a complete set of lesson plans for the whole syllabus in order to unified ESP practitioners at the moment of teaching any lesson. This part of the project requires more time and coordinated work with a team

of teachers and experts. The sample lesson presented here will only serve as a basis for future lessons development.

If materials are to be designed, it is also necessary to develop discourse analysis of oral and spoken samples in the Aeronautical industry field, in order to obtain the most accurate and appropriate registers to be used and include them in the materials. Decisions about testing should also be taken into account, including specifications, construction, tasks, validity and reliability indices.

This part of the work will be then performed depending on the willingness and cooperation of the schools, institutions, and participants under study and with necessary funding.

Finally, further work in other areas and occupations is also necessary in order to expand the immense possibilities of English for Specific Purposes.

Conclusions

Being part of this project made me reflect on every single person who is attempting to have a professional career and the importance of a language such as English to perform daily activities. The process of the investigation was long and I found some hard times going through, but I can feel proud to myself that this project will help someday to future students adventuring to do a better project.

REFERENCES

- Bojovic, M. (2012).** *Teaching Foreign Language for Specific Purposes: Teacher Development.* Lecture, Serbia.
- Brown, J. (1995).** *The Elements of a Language Curriculum.* USA: Heinle & Heinle.
- Carver, D. (1983).** Some propositions about ESP. *The ESP Journal*, 2(2), 131-137.
- Dudley-Evans, T., & St. John, M. (1998).** *Developments in ESP: A multi-disciplinary approach.* Cambridge: Cambridge University Press.
- Federal Aviation Administration (FAA) (2015).** *Aeronautical Information Manual.* Washington D.C: U.S Department of Transportation.
- Firth, A. (2009).** The lingua franca factor. *Intercultural Pragmatics*, 6(2).
- Graves, K. (2000).** *Designing language courses.* Boston: Heinle & Heinle.
- House, S. (2008).** Authentic materials in the classroom. *Didactic Approaches for Teachers of English in an International Context*, 53-70.
- Hutchinson, T., & Waters, A. (1995).** *English for specific purposes.* Cambridge: Cambridge Univ. Press.
- International Civil Aviation Organization (ICAO) (2004).** *Manual on the Implementation of ICAO Language Proficiency Requirements.* (p. 18). Montreal: Doc. 9835-AN/453.
- Job, M. (1998).** *Air disaster.* Weston Creek: Aerospace Publications.
- Kennedy, C., & Bolitho, R. (1984).** *English for specific purposes.* London: Macmillan.
- Laurence, A. (1998).** *Preaching to Cannibals: A Look at Academic Writing in Engineering.* Lecture, Japan.

- Macaro, E. (2000).** *Issues in Target Language Teaching* (pp. 171-189). Oxford: Oxford University Press.
- Mackay, R., & Mountford, A. (1978).** *English for specific purposes: A Case Study Approach*. London: Longman.
- Munby, J. (1978).** *Communicative syllabus design*. Cambridge: Cambridge University Press.
- Nunan, D. (1988).** *Syllabus design*. Oxford: Oxford University Press.
- Richards, J. (2001).** *Curriculum development in language teaching*. Cambridge: Cambridge University Press.
- Robson, M. (2013).** *Foreword* (pp. 2-5). London: The British Council.
- Rogers, C. (1969).** *Freedom to learn*. Columbus: C.E. Merrill Pub. Co.
- Safont, M. (2004).** Resources for the EAP classroom: Ways of promoting EFL learners' autonomy. *Linguistic Studies in Academic and Professional English*, 261-274.
- Stevens, P. (1988).** ESP after twenty years: A re-appraisal. *ESP: State Of The Art*, 1-13.
- Swales, J. (1985).** *Episodes in ESP*. Oxford: Pergamon Institute of English.
- Widdowson, H. (1978).** *Teaching language as communication*. Oxford: Oxford University Press.

APPENDIX 1

Instrument

**Benemérita Universidad Autónoma de Puebla
Facultad de Lenguas Modernas Inglés**



**A Needs Analysis for a Basic ESP Language Course for
Pilots and Air Traffic Controllers.**

Este cuestionario tiene como propósito investigar sus necesidades del idioma inglés a fin de diseñar un curso que le ayude a desempeñar mejor su situación académica y profesional. Por favor, lea cuidadosamente cada pregunta y seleccione la respuesta que mejor represente su punto de vista. GRACIAS.

Parte A. Preliminares

Por favor, proporcione la siguiente información personal.
Marque la opción que mejor represente su respuesta.

A1 ¿Cuál es la especialidad que está estudiando en la academia de vuelo?

- a. Piloto Comercial de Ala Fija b. Controlador Aéreo

A2 ¿Cuál es su edad?

- a. 18 - 20 b. 21-23 c. 24-26 d. +26

A3 ¿Cuál es su lengua materna?

- a. Español b. Inglés c. Otra ¿Cuál? _____

A4 En una escala de 0-100% ¿Cómo considera su nivel de inglés hasta el momento?

| | Elemental (0-25%) | Bueno (26-50%) | Excelente (51-75%) | Experto (76-100%) |
|-----------|-----------------------|-----------------------|-----------------------|-----------------------|
| Speaking | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Listening | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Reading | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Writing | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

A5 En una escala de 0-100%. Seleccione el nivel de inglés técnico relacionado a su profesión que domina hasta ahora.

- a. Elemental (0-25%) b. Regular (26-50%) c. Bueno (51-75%) d. Excelente (76-100%)

A6 En una escala de 1-5, donde 5 es el valor más bajo. ¿Qué tan importante considera que será el idioma inglés después de haberse graduado y estar laborando para una aerolínea nacional o internacional?

| | Muy alto 1 | Alto 2 | Moderado 3 | Bajo 4 | Muy bajo 5 |
|----------------------|---------------------------|-----------------------|-----------------------|-----------------------|---------------------------|
| Listening to English | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Speaking English | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Reading English | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Writing English | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Parte B. Habilidades Lingüísticas

Por favor, proporcione la siguiente información relacionada con sus habilidades lingüísticas.

Marque una casilla solamente de la siguiente lista de preguntas.

B1 ¿Con qué frecuencia has experimentado las siguientes situaciones al momento de hablar inglés dentro del salón de clases?

| | Siempre | Seguido | Algunas veces | Casi nunca | Nunca |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| B1.1 Tener dificultades al momento de dar una presentación. | <input type="radio"/> |
| B1.2 Expresar en palabras lo que piensas al momento de hablar. | <input type="radio"/> |
| B1.3 Preocuparte por hablar de modo gramaticalmente apropiado. | <input type="radio"/> |
| B1.4 No saber cómo decir algo en inglés. | <input type="radio"/> |

| | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| B1.5 No saber cómo hablar de modo apropiado en cualquier contexto. | <input type="radio"/> |
| B1.6 Dificultad en la pronunciación de palabras. | <input type="radio"/> |
| B1.7 Dificultad para iniciar o mantener una conversación. | <input type="radio"/> |
| B1.8 Otra, especifique. | <hr/> <hr/> | | | | |

B2 ¿Con qué frecuencia has experimentado las siguientes situaciones al momento de escuchar inglés dentro del salón de clases?

| | Siempre | Seguido | Algunas veces | Casi nunca | Nunca |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| B2.1 Dificultades para entender a las personas hablando en inglés. | <input type="radio"/> |
| B2.2 Dificultad para tomar notas de lo que se dice en conversaciones. | <input type="radio"/> |
| B2.3 Preguntar a tu instructor para clarificar algo que se dijo en clase. | <input type="radio"/> |
| B2.4 Dificultad para entender conversaciones largas en inglés. | <input type="radio"/> |
| B2.5 Dificultades para entender instrucciones habladas. | <input type="radio"/> |
| B2.6 Dificultad para entender el elemento clave de cualquier conversación. | <input type="radio"/> |
| B2.7 Dificultad para entender terminología aeronáutica en inglés. | <input type="radio"/> |
| B2.8 Otra, especifique. | <hr/> <hr/> | | | | |

B3 Tengo problemas para entender discursos de compañeros o de otras personas que hablan inglés porque:

| | Siempre | Seguido | Algunas veces | Casi nunca | Nunca |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| B3.1 Ellos hablan demasiado rápido. | <input type="radio"/> |
| B3.2 Ellos hablan muy bajo. | <input type="radio"/> |
| B3.3 Su acento o su pronunciación es diferente al que estoy acostumbrado a escuchar. | <input type="radio"/> |
| B3.4 Más de una persona habla al mismo tiempo. | <input type="radio"/> |
| B3.5 Otra, especifique. | | | | | |

B4 En lo que respecta a la habilidad escrita, indique cuál es el grado de importancia que cada elemento tiene para usted y con qué frecuencia has experimentado dificultades en los mismos.

| Importancia | | | | | Frecuencia de problemas | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|---|--------------------------------|-----------------------|-----------------------|-----------------------|
| Muy importante | Importante | Sin importancia | Inseguro | | Siempre | Seguido | Algunas veces | Nunca |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | B4.1 Usar la puntuación y ortografía correcta. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | B4.2 Estructurar oraciones. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | B4.3 Usar el vocabulario apropiado. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | B4.4 Expresar apropiadamente las ideas. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | B4.5 Desarrollar ideas. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | B4.6 Expresar claramente lo que quieres decir. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | B4.7 Completar actividades escritas (exámenes) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | B4.8 Otros, por favor especifique: | | | | |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | _____ | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| | | | | _____ | | | | |
| | | | | _____ | | | | |

B5 ¿Cuál de estos materiales escritos en inglés debe leer en su vida académica y profesional y con qué frecuencia ha experimentado un grado de dificultad para poder leerlos?

| | Requisito para leer | | Frecuencia de Dificultad | | |
|--|----------------------------|----|---------------------------------|-----------------------|-----------------------|
| | | | Seguido | Algunas veces | Casi nunca |
| B5.1 Artículos sobre Aeronáutica. | Si | No | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| B5.2 Manuales de vuelo. | Si | No | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| B5.3 Libros de texto. | Si | No | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| B5.4 Capítulos seleccionados de libros. | Si | No | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| B5.5 Bitácoras | Si | No | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| B5.6 Cartografías | Si | No | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| B5.7 Reglamentos de Navegación Aérea. | Si | No | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| B5.8 Otra, especifique. | <hr/> <hr/> | | | | |

B6 ¿Con qué frecuencia has experimentado las siguientes situaciones al momento de leer inglés dentro del salón de clases?

| | Siempre | Seguido | Algunas veces | Casi nunca | Nunca |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| B6.1 Dificultad para entender la idea principal del texto. | <input type="radio"/> |
| B6.2 Dificultad para encontrar información específica en el texto. | <input type="radio"/> |
| B6.3 Conocer el significado de palabras nuevas mediante el contexto. | <input type="radio"/> |
| B6.4 Dificultad para entender vocabulario técnico en un texto. | <input type="radio"/> |
| B6.5 Dificultades para lograr una comprensión general del texto. | <input type="radio"/> |
| B6.6 Otra, especifique. | <hr/> <hr/> | | | | |

Parte C. Habilidades a Mejorar con el Nuevo Curso

Por favor, proporcione la siguiente información relacionada con sus habilidades que le gustaría mejorar con el curso de inglés para aviación que se planea integrar a su carga académica.

Marque una casilla solamente de la siguiente lista de habilidades.

C1. ¿En qué situaciones considera útil el uso de inglés dentro de su campo laboral y académico?

| | Muy útil | Útil | Poco útil |
|---|-----------------------|-----------------------|-----------------------|
| C1.1 De compras en una tienda Duty Free | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.2 Información sobre servicios en la Terminal | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.3 Redactar un Plan de Vuelo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.4 Solicitar Servicios ATIS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.5 Pedir un taxi | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.6 Utilizar Aéreo Tren | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.7 Pedir direcciones | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.8 Hablar con otros Pilotos a través de los Sistemas de Radio Operación. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.9 Hablar con el personal de oficina | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.10 Pedir autorización para despegue | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.11 Solicitar permiso para aterrizar | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.12 Hablar con los servicios de operación terrestre | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.13 Hablar con la tripulación | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.14 Hablar con amigos | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.15 Tener conversaciones casuales con los pasajeros | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.16 Leer los manuales de vuelo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.17 Hablar con los controladores de tráfico aéreo. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.18 Aprender el alfabeto ICAO | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.19 Aprender vocabulario relacionado al aeropuerto | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.20 Perfeccionar el vocabulario adquirido | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.21 Radio Comunicación básica | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.22 Practicar situaciones extraordinarias | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.23 Chequeo pre-operatorio | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.24 Movimientos terrestres | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.25 Procedimiento para Salidas | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

APPENDICES

| | | | | |
|--------------|--|-----------------------|-----------------------|-----------------------|
| C1.26 | Procedimiento para Ascensos | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.27 | Procedimiento para vuelo de crucero | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.28 | Eventos extraordinarios en vuelo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.29 | Procedimiento de contacto y aproximación | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.30 | Procedimiento para aterrizajes | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.31 | Llegando a la sala de desembarque | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.32 | Operaciones terrestres | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.33 | Sistemas de control de vuelo | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.34 | Medidas de Seguridad Aeroportuarias | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.35 | Emergencias Médicas | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.36 | Vocabulario Técnico. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| C1.37 | Otros, especifique: | | | |

¡GRACIAS!



Con tu participación puedes sugerir un curso ideal, enfocado a las necesidades que los alumnos de aviación presentan en el instituto y cuando entren al mundo laboral.

Este instrumento planea solamente usar la información recabada para resultados académicos presentados en el capítulo cuatro de la Tesis elaborada por el desarrollador del presente instrumento.

APPENDIX 2

**Pilots and Air Traffic
Controllers' needs**

| ITEM | Situation | Muy útil | Útil | Poco útil |
|-------------|---|-----------------|-------------|------------------|
| C1.1 | De compras en una tienda Duty Free | 0 | 15 | 5 |
| C1.2 | Información sobre servicios en la Terminal | 17 | 3 | 0 |
| C1.3 | Redactar un Plan de Vuelo | 20 | 0 | 0 |
| C1.4 | Solicitar Servicios ATIS | 20 | 0 | 0 |
| C1.5 | Pedir un taxi | 0 | 2 | 18 |
| C1.6 | Utilizar Aéreo Tren | 0 | 0 | 20 |
| C1.7 | Pedir direcciones | 16 | 3 | 1 |
| C1.8 | Hablar con otros Pilotos a través de los Sistemas de Radio Operación. | 20 | 0 | 0 |
| C1.9 | Hablar con el personal de oficina | 10 | 7 | 3 |
| C1.10 | Pedir autorización para despegue | 20 | 0 | 0 |
| C1.11 | Solicitar permiso para aterrizar | 20 | 0 | 0 |
| C1.12 | Hablar con los servicios de operación terrestre | 20 | 0 | 0 |
| C1.13 | Hablar con la tripulación | 15 | 5 | 0 |
| C1.14 | Hablar con amigos | 0 | 3 | 17 |
| C1.15 | Tener conversaciones casuales con los pasajeros | 4 | 7 | 9 |
| C1.16 | Leer los manuales de vuelo | 20 | 0 | 0 |
| C1.17 | Hablar con los controladores de tráfico aéreo. | 20 | 0 | 0 |
| C1.18 | Aprender el alfabeto ICAO | 15 | 5 | 0 |
| C1.19 | Aprender vocabulario relacionado al aeropuerto | 18 | 2 | 0 |
| C1.20 | Perfeccionar el vocabulario adquirido | 16 | 4 | 0 |
| C1.21 | Radio Comunicación básica | 20 | 0 | 0 |
| C1.22 | Practicar situaciones extraordinarias | 20 | 0 | 0 |
| C1.23 | Chequeo pre-operatorio | 17 | 3 | 0 |
| C1.24 | Movimientos terrestres | 18 | 2 | 0 |
| C1.25 | Procedimiento para Salidas | 20 | 0 | 0 |
| C1.26 | Procedimiento para Ascensos | 20 | 0 | 0 |
| C1.27 | Procedimiento para vuelo de crucero | 20 | 0 | 0 |
| C1.28 | Eventos extraordinarios en vuelo | 20 | 0 | 0 |
| C1.29 | Procedimiento de contacto y aproximación | 20 | 0 | 0 |
| C1.30 | Procedimiento para aterrizajes | 20 | 0 | 0 |

APPENDICES

| | | | | |
|--------------|-------------------------------------|----|---|---|
| C1.31 | Llegando a la sala de desembarque | 14 | 5 | 1 |
| C1.32 | Operaciones terrestres | 18 | 2 | 0 |
| C1.33 | Sistemas de control de vuelo | 20 | 0 | 0 |
| C1.34 | Medidas de Seguridad Aeroportuarias | 20 | 0 | 0 |
| C1.35 | Emergencias Médicas | 20 | 0 | 0 |
| C1.36 | Vocabulario Técnico. | 20 | 0 | 0 |