FACULTY OF LETTERS AND LANGUAGES

DEPARTMENT OF ENGLISH LETTERS AND LANGUAGE

جامعة أحمد دراية. أدرار. الجزائر
Université Ahmed DRAIA. Adrar-Algérie

English Needs Analysis of the Air Traffic Controllers at Touat- Chiekh Sidi Mohammed Belekbir Airport - Adrar Province-

A Dissertation Submitted in Partial Fulfillment of the Requirements for a Master's Degree in linguistics and didactics

Presented by:	**Supervised by:**
MS. Abekhti Rachida	
MS. Hadjadj Rekia	Mr. Keddouci Othmane

Board of Examiners

Mr. Lahcen Boubakeur	Chairperson
Mr. Keddouci Othmane	Supervisor and Rapporteur
Dr. Lahmar Mohammed	Examiner

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Dedication

I dedicate this work to my dearest

parents who believe in my potential and

inspired me to pursue my dreams

To my beloved husband

To my brothers, sisters, family and

friends

Rachida

Dedication

I dedicate this work to my beloved

parents

To all my dear brothers and sisters

To all my family members, my friend

and loved ones

Rekia

Acknowledgments

Thanks to Allah the Almighty for all your gifts.

Peace be upon our prophet Mohammed, the merciful messenger to mankind.

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List of Abbreviations

ATC. Air Traffic Controller

EAP. English for Academic purposes

EBE. English for Business and Economy

ELT. English Language Teaching

EOP. English for Occupational purposes

ESP. English for Specific purposes

ESS. English for Social Sciences

EST: English for Science and Technology

GE. General English

IATA . International Air Transport Association

ICAO. International Civil Aviation Organization

NA. Needs Analysis

NATO. North Atlantic Treaty Organization

PNA. Pedagogic Needs Analysis

PSA. Present Situation Analysis

TEA. Teaching English Aviation

TSA. Target Situation Analysis

WW2 . World War 2

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General Introduction

General Introduction

English has a long, rich history. It is widely known as the global language. It imposes itself as the language of international business, politics, democracy, aviation, science and technology. Thus, mastering this language has become an urgent necessity. In the case of aviation industry, the air traffic controllers have to enhance their level in English in order to surmount the difficulties and problems in their work, as well as to recognize their needs, lacks, and wants in the aviation field.

In the present work, the focus is on the English used by the ATC at Touat Chiekh Sidi Mohammed Belkbir Airport. The objectives of this research are to know to what extent the English language is used by the ATC of Adrar airport, and to identify their problems and deficiencies in the language as well as to give them the opportunity to suggest solutions that may help them develop their skills in the target language from their perspective.

➢ The main research questions of this study are:

-To what extent do the ATC of Adrar Airport use English? What are the main language skills that they focus on?

-What kind of English is used by the ATC?

-What are the difficulties that ATC face in their job?

-Are there any suggestions that might help the ATC enhance their language proficiency, and get rid of the difficulties they face?

➢ The hypotheses that we held before starting this study:

-The ATC at Adrar airport use English in the field of their work, yet, they don't use it as much as they use French.

General Introduction

-The level of ATC in English is excellent, since they are required to master it.

-Since all the ATC of Adrar airport are Algerian; they may share the same linguistic and educational background, mother tongue (Algerian Arabic variety), and training which may affect their fluency in English.

- English language has different skills, for the ATC listening and speaking are the most important.

The sample we conducted our study on, is the ATC of Adrar Airport. They are a group of twelve; ten men and two women, whose ages range between 28 and 44 years old. All of them have university degrees, and certificates to prove their level of English, which is the third level. Moreover, it is mandatory for the air traffic controllers to have the **third level** in the English language.

This current study is composed of three chapters. The first chapter is divided into two parts. The first part deals with English for specific purposes and its origins, definition, classification, development, and the difference between ESP and GE. The second part, deals with Needs Analysis. The second chapter is divided into two parts as well; the first part defines English for Aviation and its establishment as an ESP specialty, the ATC, the ICAO.

In addition, to phraseology and plain English. Whereas, the second part deals with English for aviation in Algeria, and Cheikh Sidi Mohamed Belekbir airport. Finally, the third chapter presents the data collection, the research methodology, and the interpretation of the results.

Chapter One: ESP and Needs Analysis

Part one: ESP

Introduction

Generally, ESP courses aim to teach a specific language and communication skills that a specific group of learners need to learn. ESP is a division of English Language Teaching (ELT), and it is itself divided into different branches and types; each branch is specified with a particular domain. Therefore, ESP is of a great importance for the learning process.

1. The origins of ESP

The end of the World War 2 was the gate to the emergence of ESP. Yet, this latter was not a strategic and comprehensible drive; it was rather a phenomenon that raised due to several factors. Those trends or factors are as follow: the demands of a new brave world, a revolution in linguistics, and the focus on the learner. (Hutchinson and Waters, 1987)

 ➢ **The demands of a new brave world**

 After the end of the World War 2 in 1945, commerce and technology became the main forces that control the new world. Thus, there were a need to a language that relates all the communities to facilitate their contact, and the choice fell on English to be an international language for many reasons. The main reason was that the United States was the dominant country after the flourish and the spread of its investments all over the world which helped the prosperity and brilliance of the English language. In addition, American civilization has exported its culture to all parts of the world and that's another reason that promoted the spread of the English language. On the other hand, the learners of foreign languages at that time, then were learning English or foreign languages without a particular

reason except for prestige. However, after English became the international language "It created a new generation of learners who knew specifically why they were learning a language" (Hutchinson and Waters 1987:6). Consequently, the demand on English learning increased as it became a tool to fulfil people's goals.

> ➤ **A Revolution in Linguistics**

Before 1945, the focus of linguistics was upon grammar**,** i.e. the rules of English usage. However, the new studies of how English language will be educated, which took place after the World War 2 when the demand of learning English has increased. Directed the attention towards finding ways in which language is used in real situations, that is the communication process. And consequently, made the characteristics of these real situations the basis of creating a learner's course, which is the result of identifying the English they need to learn in their field of study or work. In short, "Tell me what you need English for and I will tell you the English that you need "(Hutchinson and Waters1987:8) **,**i.e. the type of English that the learner needs to learn depends on what he wants to learn English for.

> ➤ **Focus on the learner**

After the learners became totally aware of the reasons why they are learning English, and what they need it for. Their motivation towards learning became stronger, which resulted in making their learning process more productive. Consequenty, after the learner became the centre of the learning process, new developments added to the educational system. This latter helped in the emergence of ESP, which is the direct result of the world evolution (Hutchinson and Waters, 1987).

2. The Definition of ESP

ESP is an abbreviation to English for Specific Purposes, and it is a subset of ELT that is English language teaching. However, many linguists have defined ESP differently each from his own perspective, and the following definitions can be considered as the basic ones:

- ➢ ESP is a method to teaching English language on the basis of the learner's needs from learning as it is stated in Hutchinson and Waters (1987,p.19)

- ➢ ESP is an approach to language teaching in which all decisions as to content and method are   based on the learner's reason for learning".

- ➢ ESP is based on creating the plans and materials needed to meet the learners language needs in a specific field of study. Johns and Dudley-Evans (1991,p.298) stated that " ESP requires the careful research and design of pedagogical materials and activities for an identifiable group of adult learners within a specific learning context".

3. The classification of ESP

: ESP has traditionally been divided into different classified branches by linguists. One of which, is Hutchinson and Waters classification (1987), the tree of ELT:

```
                          ┌─────────────┐
                          │     ESP     │
                          └─────────────┘
                   ┌─────────────┼─────────────┐
            ┌──────────┐   ┌──────────┐   ┌──────────┐
            │   EST    │   │   EBE    │   │   ESS    │
            └──────────┘   └──────────┘   └──────────┘
             ┌──────┴──┐    ┌──────┴──┐    ┌──────┴──┐
         ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐
         │  EAP  │ │  EOP  │ │  EAP  │ │  EOP  │ │  EAP  │ │  EOP  │
         └───────┘ └───────┘ └───────┘ └───────┘ └───────┘ └───────┘
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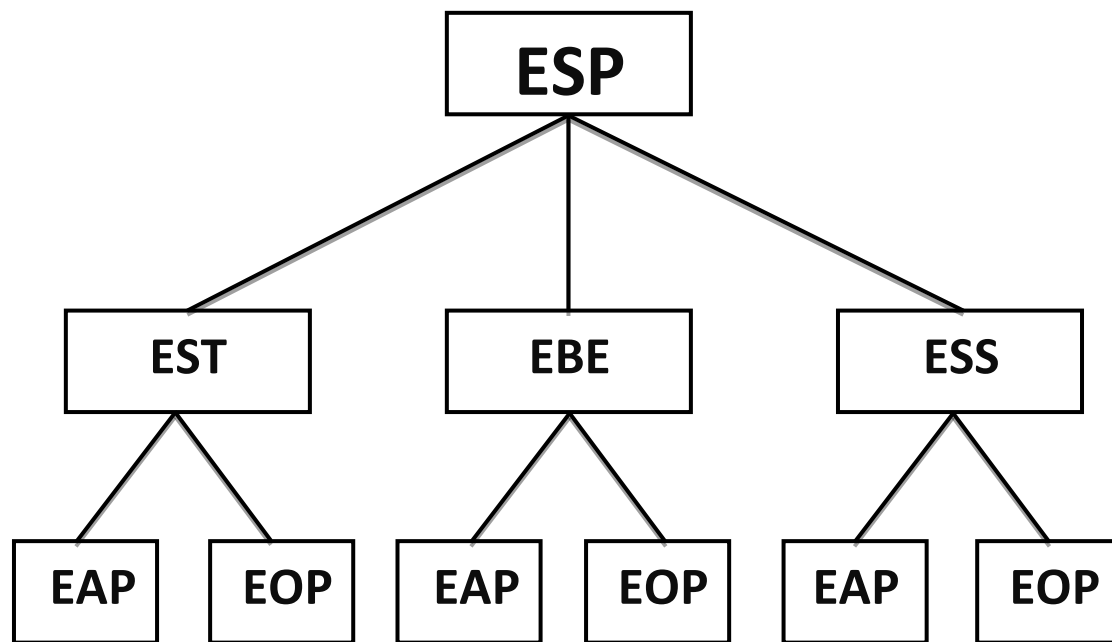
Figure 01. Simplified tree of ELT (Hutchinson and Waters, 1987.17)

Hutchinson and Waters divided ESP into three branches. EST, that is English for science and technology, EBE which stands for English for business and economy, last and not least there's ESS which is English for social sciences. These three branches can be either (EOP) English for Occupational Purposes or (EAP) English for Academic Purposes.

```
                    ┌──────────────┐
                    │     Pre-     │
                    │  experience  │
                    └──────────────┘
                    ┌──────────────┐
        ┌────────┐  │  Simultane   │
        │  EOP   │──│     ous      │
        └────────┘  └──────────────┘
                    ┌──────────────┐              ┌──────────────┐
                    │    Post-     │              │  Pre-study   │
┌────────┐          │  experience  │              └──────────────┘
│  ESP   │          └──────────────┘
└────────┘  ┌──────────────────────────┐          ┌──────────────┐
            │  For study in a specific │──────────│   In-study   │
            │        discipline        │          └──────────────┘
        ┌────────┐ └──────────────────────────┘
        │  EAP   │                                 ┌──────────────┐
        └────────┘                                 │  Post-study  │
                                                   └──────────────┘
                  ┌──────────────┐   ┌──────────────┐
                  │ As a school  │   │  Independe   │
                  │   subject    │───│     nt       │
                  └──────────────┘   └──────────────┘
                                     ┌──────────────┐
                                     │  Integrated  │
                                     └──────────────┘
```

Figure 02. **Robinson's (1991) classification of ESP**

Robinson has divided ESP into two main zones. 1- English for Academic Purposes (EAP): for study in a specific discipline (pre-study, in-study, and post-study). Or as a school subject (independent or integrated). 2- English for Occupational Purposes (EOP) involving pre-experience, simultaneous and post-experience.

4. Development of ESP

English for Specific Purposes has developed at different speeds in different countries. In the 1960s, there were three main phases that contributed in the development of ESP. At the moment, it is in the fourth phase and the fifth phase is about to emerge.

A. The Language: Register Concept of Special Analysis

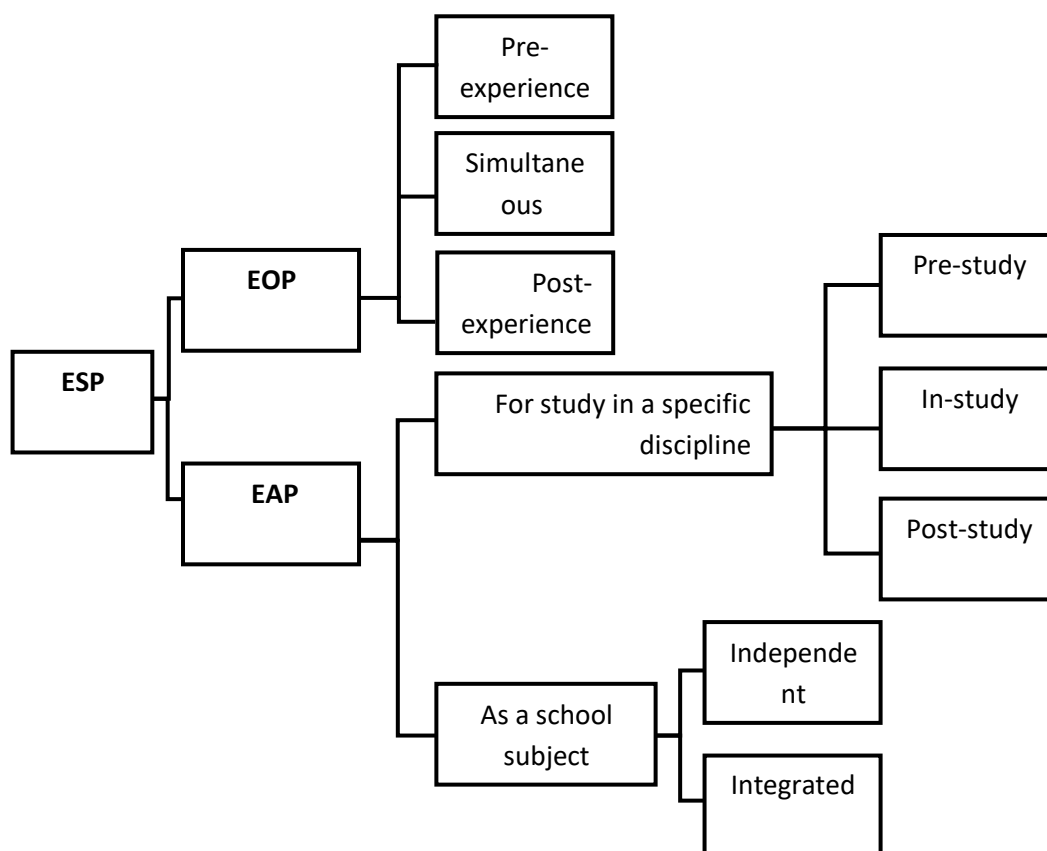This period took place mainly in the 1960s and early 1970s. Its aim was to identify the grammatical and classical features of these registers. It wanted to produce a successful syllabus which gave a high priority to the language forms that students would meet in their Scientific studies. Whereas, it gave a low priority to forms they would not meet. However, ESP course should give precedence to these language forms in science texts such as compound nouns, passives

B. Beyond the Sentence: rhetorical or discourse analysis

In this phase, the development of ESP moved to the level of the sentence. It means that how sentences were combined and related in discourse to produce meaning.

Consequently, ESP became totally involved in the emerging of rhetorical or discourse analysis. The phase's hypothesis is expressed by Allen Widdowson (1974) *"we take the view that the difficulties which the students encounter arise not so much from a defective knowledge of the system of English ,but from unfamiliarity with English use, and that consequently their needs cannot be met by a course which simply provides further practice in the composition of sentence ,but only by one which develops a knowledge of how sentences are used in performance of different communicative acts "*.The research

cared to identify the organizational patterns in texts ,and to specify the linguistics means by which these patterns are signaled.

C. Target Situation Analysis

This stage of development did not add anything new to the range of knowledge about ESP. It aimed to take the existing knowledge, and set it on a more scientific basis. It established procedures for reality language analysis, which is more closely to learners needs for learning. The purpose of an ESP course is to enable students (learners) to function in the target situation. In the other hand, ESP course design process must undergo with two main points. The first one is identifying the target situation in which the learners are learning and using language. The second is to carry out the right analysis of linguistic features of that situation. This process is known as "needs analysis".

D. Skills-Centered Approach

It is the fourth stage of ESP. The concern of this phase is not language itself, but also thinking process that underlie language use. Both skill and strategies were set up to cope with study situations where the medium of instructions is the mother tongue. Students need to read number of specialist texts that are available in English. It concentrates on reading strategies. The phase focused on the underlying interpretive strategies rather than focusing on the surface forms of the language. These strategies enable the learners to cope with the surface forms of the language, for example, they become able to guess the meaning of words from context. It has been noted that the phase of skill and strategies emphasis on reading and listening skills. It makes the learners analyze how meaning is produced in and retrieved from written and spoken discourse.

E. Learning- Centered Approach

The previous stages were all based on descriptions of language use (surface form, underlying processes).That is, the concern was on describing what people do with language. Whereas; ESP concerns not with language use. It concerns with language learning and the understanding of its processes .This brings us to the fifth phase of ESP development which is the Learning-Centered Approach .As a results, the distinction between language use and language earning helps to understand each of these stages of ESP development.

5. The difference between English for Specific Purposes and General English

Hutchinson and Waters (1987) state that there is no difference between English for Specific Purposes and General English in theory, but there is a great difference in practice.

ESP stands on learning, teaching and nature of language. In ESP teaching approach (learner-centered), the learners 'needs are more important to be selected with the specific skills needed, and   syllabus design determined. Whereas in General English approach (language centered), the focus is on learning the language with the four skills (listening, speaking, reading and writing).

Further distinction between English for Specific Purposes and General English is that ESP courses are optional, and pending on the objectives and wishes of the learners. Whereas, general English courses are provided to learners as a compulsory module at schools where the main object is to succeed in the examinations. (Hutchinson & Waters 1987).

Conclusion

This part of the study, tried to spotlight on one of the key concepts used in this research, and aimed to introduce English for Specific Purposes and the different subdivisions that it includes. This part defined the origins of ESP as well as its definitions, classification, and development. In addition to the difference between ESP and General English.

The following part tries to define Needs Analysis, which is an important stage in ESP course design.

Part two: Needs analysis

Introduction

ESP course design includes a stage in which the course identifies what a specific language or skill that particular group needs. The identification of the language and the skills is used in determining and refining the content for the ESP course. The process of needs analysis has become increasingly sophisticated in the domain of ESP. It is also a key component in ESP course design and development. In addition, needs analysis is considered as an obligatory step in every genuine ESP course because it helps to ensure that any tendering process will focus on solution to the exact problem.

1. The Role of Needs Analysis in ESP World

Needs analysis has a vital role for teachers of ESP. It identifies the learners 'key needs and requirements. It also determines the areas in which there is skills that the learners need to develop. As Hutchinson and Waters (1987) states, learning needs is what learners need to do in order to learn. Needs analysis helps them to adapt with the new

learning system when their teachers recognize their needs of the learning process. Furthermore, needs analysis identify the weaknesses and the strengths of the skills that they use in their academic domain.

2. The History of Needs Analysis

It has undergone through different phases of development from the beginning of 1960s till the late 1980s.

Years	Main trends in the history of ESP and researches'name	
1960s-1970s	Lexico-statistics , register analysis	Needs= lists of discrete language items.
1978	Munby's communicative syllabus design	Needs = function and situation
Late of 1980s	Psychological stance to nee (Brindley 1989,Hutchinson and Waters,1987)	Needs=linguistics item+function+learners+perceptions +psychological constructs.

Table 01. The main trends in the history of ESP

3. The definition of Needs Analysis

3.1. What is needs?

The term needs has been defined by many researchers .For instance, Hutchinson and Waters suggest two needs analysis which are target needs and learning needs.

A. Target Needs

Hutchinson and Waters stat that the target needs are an umbrella term that hides a number of crucial characteristics. Target needs include three main points; necessities, lacks, and wants.

-Necessity: is a type of needs determined by the demand of a target situation. It means what the learner has to know in order to function effectively in the target situation. For example, the need of someone to be successful in his business.

-lacks: actually, an ESP concern is with the needs of particular learners and what they have to know. Then deciding which of the necessities the learners lack. Knowing the lack of these learners will help the teacher to design an appropriate course in the study process.

-Wants: learners have to know what they want to learn. They also need to do their efforts to achieve their willing from the situation.

B. Learning Needs

To learn learners' needs, we have to consider what knowledge and abilities the learners require and perform. We have to take into consideration the first starting point "lacks", it means that the tutor should know the difference between the learner's present competence, and the desired competence. The tutor should identify the final point or

destination, it means that the teacher should make sure that the learners have the ability to act effectively in the required situations. Finally, the guider must know the needs on which the learners put a high priority, in the available limited time, and the disputes of what the destination should be "wants".

3.2. Needs Analysis

It is one of the key stages in ESP. It refers to the activities involved in gathering information that serves the development of a curriculum that will meet the learning needs of a particular group of learners (Iwai 1999).

According to Richterich and Chancerel 1987, "needs analysis is a prerequisite in any course design". It means that the role of needs analysis is invaluable in any ESP course, it helps the teacher in selecting, organizing, and designing courses in a particular.

4. Models of Needs Analysis

Hutchinson and Waters are the prominent in needs analysis. As well as, they are the pioneered of its models (1987). They have started the classification of needs analysis' models, then West gave forward definitions (1994) as follow:

4.1. Target situation analysis

The term target situation analysis used first time by Chambrers 1980s. He states that target situation analysis is "communication in the target situation". In other words, target situation analysis is the situation in which

Learners will use the language they are learning.

➢ **Target Situation Analysis Framework**

Is a structure analysis learners 'needs, it includes numerous related questions and requires a preparation of target situation framework?

The following questions illustrates the framework submitted by Hutchinson and waters (1987). It is a structured interview directed to the air traffic controllers at Touat Cheikh Sidi Mohamed Belekbir airport:

*Why is the language needed?

 -For work.

*How will the language be used?

   -medium: speaking, listening.

  -channel: radiotelephony.

*What will the content areas be?

  -Subject: aviation industry.

 -level: postgraduate.

*Who will the learners use the language with?

  -both native and non-native speakers.

 -level of knowledge of receiver: average

 -relationship: colleague

*Where will the language be used?

  -physical setting: office, control tower

-human context: radiotelephony

*When will the language be used?

  -in a daily basis

(Hutchinson and Waters, 1987.p62-63)

4.2. Present situation analysis PSA

Present Situation Analysis was first proposed by Richterich and Chancerel (1980). It is a complement to target situation analysis, and it tries to identify what the learners are expected to be like at the beginning of the language course. Dudley-Evans and St. John (1998:125) stated that "A present situation analysis estimates strengths and weaknesses in language, skills and learning experiences".

Needs analysis is a mixture of target situation analysis and present situation analysis. Neither TSA nor PSA can be considered as trustworthy indexes of what is needed to fulfil teaching and learning the desired goals. Thus, other approaches such as Pedagogic needs analysis have been proposed to needs analysis.

4.3. Pedagogical needs analysis PNA

The term Pedagogic Needs Analysis is an umbrella term that was introduced by West (1998). PNA is considered to be a combination of all the above-mentioned approaches that aims to overcome all the above approaches by gathering data about the learner and the

learning environment. However, Pedagogic needs analysis implies the following three elements of needs analysis; deficiency analysis, strategy analysis and means analysis.

A. Deficiency analysis

Deficiency analysis may be defined as the approaches to needs analysis that have been developed in order to deal with learner's present needs or wants. Deficiency analysis is the route to match between present situation and target situation analysis.

B. Strategy analysis

This type of Needs Analysis includes the strategies the learners employ in order to learn another language; therefore, it focuses on how the learners wish to learn instead of what the learners need to learn, and on learning the basic skills that allow the learners to reach the target they seek. Also, on the process and motivation of learning, in addition to the fact that learners are different so that they learn in different ways.

C. Means analysis

Dudley-Evans and St. John (1998:125) say that Means Analysis provides "information about the environment in which the course will be run". Therefore, it tries to adapt ESP course to the cultural environment in which it takes place. Means Analysis is concerned with issues like the "Acknowledgment that what works well in one situation may not work in another "(Dudley-Evans and St. John 1998: 124).Thus, ESP is required to provide tools for designing an environmentally adapted course.

Conclusion

   Needs Analysis, which is also known as Needs Assessment ,is the process of designing any language courses according to the learners' needs. It also plays an important role in the developing and devising the curriculum, whether it is English for Specific Purposes or General English course.

Chapter two: English for Aviation

Part one

Introduction

Aviation English is the English used in the aviation industry. It was chosen by the ICAO (International Civil Aviation Organization) to be the global language of aviation. In this chapter, we will shed light on some concepts in the aviation industry; like the establishment of aviation English as an ESP course, as well as air traffic controller's communication involving English, the ICAO, and phraseology. It also introduces Touat Cheikh Sidi Mohamed Belekbir Airport of Adrar.

1. The establishment of Aviation English as an ESP course:

1.1. English as a universal language of aviation

ICAO has recommended English to be the universal language of civil aviation in 1951. The reasons behind that choice is the fact that English-speaking countries controlled the design and manufacturing of aircraft.

1.2. Aviation English as an ESP course

Aviation English is defined as the inclusive but specialized subset of English that is related to aviation industry, it includes, Plain language that is used for radiotelephony communications, and Phraseology, which refers to the language used to convey max information with least number of words, and numbers, which is used by air traffic controllers in communication with pilots.

Aviation English is a subdivision of ESP, particularly; it belongs to English for occupational purposes or restricted language. However, there are a fine number of factors that led to the establishment of Aviation English as an ESP specialty.

In the one hand, there are the external factors represented in the requirements of the aviation industry that pilots, ATC, cabin attendants, crew members, engineers and service staff have to be able to communicate with their counterparts in the world on work-related issues. That communication has two requirements; first, Terminologies or phraseologies have to be used correctly and in a standard manner in air/ground communication. Second, the use of English language in daily communication amongst aviation crew. On the other hand, the internal factors are represented in the need of the establishment of aviation English as a specialty for methodical study.

2. Air traffic controller's communication involving English

2.1. Who are the Air traffic controllers?

The air traffic controllers work at control towers; they are a professional employee specialized in the control and guidance of the aircrafts on the air/ground. ATC provides pilots with advisory services in controlled and non-controlled airspaces to ensure safe.

Air traffic controller's responsibilities:

-maintain radar and radio contact with aircraft.

-direct the movement of the aircraft at the airport.

-give instructions to the aircraft to climb or descend cruising level.

-provide information to aircraft about weather conditions

-deal with unusual events and unexpected emergencies.

Air traffic controllers as well as pilots communicate with one another using English regardless of their own native language. However, the English they use is technical, only

aviation professionals understand it, which is phraseology along with plain language. (www.truity.com).

2.2. Expectations and Ambiguity

Miscommunication may occur due to the use of non-standard or ambiguous phraseology by ATC/pilots, which may contribute in aircraft accidents and incidents. Therefore, pilots and air traffic controllers use standard phraseology to make sure that communication is clear and comprehensible. Language and communication are very important issues in the aviation industry, thus, miscommunication could possibly lead to dangerous situations.

2.3 Paralinguistic factors

Paralinguistic factors include, intonation, stress, pauses…Those factors plays an important role in the success of the communication process. During radiotelephony communication in between pilot and ATC, paralinguistic factors helps the receiver to get the intended meaning correctly for it can change the form and meaning of sentences according to what the speaker wants to perceive.

3. International Civil Aviation Organization

International Civil Aviation Organization is a specialized agency of the United Nations. It was established in April 4th 1947 in Chicago. The primary function of the International Civil aviation is to provide a set of standards, which help in regulating the aviation industry across the world. International Civil Aviation Organizations role lies in classifying the principles and techniques of international air navigation, as well as the planning and the development of international air transport to ensure safety and security.

4. Phraseology and Plain English as a Subset of English for Aviation

There are many types of English for Specific Purposes: English as a Restricted Language, English for Academic and Occupational Purposes, and English with Specific Topics. Phraseology and plain language are considered as restricted ones .They are the factors that influence the process of communication between air traffic controllers and pilots.

Phraseology is a very narrow and specialized subset of the English language. The International Civil Aviation Organization (ICAO) has been established it in order to facilitate the communication between members of air travel community (Staphany. 2011). Phraseology allows both air traffic controllers and pilots to communicate rapidly and effectively.
The use of standard phraseology is important in assisting the safe and faster operation of aircraft movement. While the usage of non-standard phraseology results in misunderstanding and confusion by the flight crew .Therefore, air traffic controllers have to deliver the flight crew in a clear, concise, and an unambiguous manner.

The International Civil Aviation Organization (ICAO), also suggest the use of plain English to solve emergency situations when standard phraseology is not enough. Plain English comes to solve problems of communication in the aviation community, especially between air traffic controllers and pilots .It seems less restricted than phraseology as Staphany (ibid) says "plain English is less restricted than phraseology but not as natural language as everyday speech".

> **The ICAO Alphabet and Numbers**

a- Alphabet:

A-Alpha	K-Kilo	U-Uniform
B-Bravo	L-Lima	V-Victor
C-Charlie	M-Mike	W-Whiskey
D-Delta	N-November	X-X-ray
E-Echo	O-Oscar	Y-Yankee
F-Foxtrot	P-Papa	Z-Zulu
G-Golf	Q-Quebec	
H-Hotel	R-Romeo	
I-India	S-Sierra	
J-Juliett	T-Tanga	

b- Numbers:

0- Zero	4- Fower	8- Alt
1- Wun	5-Fife	9- Niner
2- Too	6- Six	
3- Tree	7- Seven	

(Sue, E and Terence, G .2008: 6)

5. Aviation in Algeria

Algeria is a European partner of the European Union Aviation Safety Agency. Algeria Civil Aviation Authority is a public institution .ACAA's mission is to ensure aviation safety in Algerian airspace. The authority regulates aviation in Algeria, including airports, aircraft, controllers and pilots. Moreover, Algeria's Civil Aviation Authority recognized the need to improve the English language proficiency of the air traffic controller and pilot of their national and domestic carriers. As well as it needed to increase its capability to train and test personnel in order to meet the ICAO Language Proficiency Requirement , which would help ensure safe passage for International carriers and enable its national carrier to increase its networks internationally. (RMIT English Worldwide / RMIT Training Pty Ltd. 2020).

5.1. Touat Cheikh Sidi Mohamed Belekbir Adrar airport

An overview

It is an Algerian airport located 11 km in the southeast of the Algerian province, Adrar. The airport holds the symbol of the International Civil Aviation Organization ICAO, and the symbol of the International Air Transport Association IATA.

The airport has one runaway; it also contains an air control tower equipped with all navigation and weather devices, an area for maintenance, supply and waiting for aircraft. In addition to a passengers building, an area for administrative offices and an area for customs and cargo clearance. Two airlines operate at Touat Cheikh Sidi Mohamed Belkbir airport, Air Algeria and Tassili Airlines.

5.2. The Navigation Company in Adrar airport

It is a subsidiary of the National Establishment of Air Navigation. Whose mission is to ensure safety of air navigation over the Algerian airspaces, and the movement of air traffic in all Algerian aerodromes. The head of navigation company of Ardar airport Mr. Bousaid Meftah says that there are different domestic and international airlines that operates in Adrar airport .Air Algerie and Tassilli airlines are the more frequently in the airport . Air Algerie offers scheduled flights from Adrar to some states in Algeria. On the other hand, the most popular sector from Adrar airport are Adrar to Algeria, Adrar to bordi Badji Mokhtar.

Conclusion

The aviation English is a wide branch of ESP; it is divided into two types of English; phraseology, and plain English. Both of them are important, and has been used in the aviation industry. This chapter also dealt with Adrar Airport, which is the institution that we applied our study on.

Part Two: Data Analysis and Interpretation

Introduction

This part presents data analysis and interpretations of the present study. It analyses and interprets the data gathered. Moreover, it is specialized for the questionnaire and the interview of ATC In addion to the limitations, difficulties and the interpretation of the findings of the study and the solutions proposed.

1. The Description of the samples

The samples of this work is the air traffic controllers at Touat Chiekh Sidi Mohammed Belekbir Airport .We noticed that all the workers are Algerians. They are adults, their ages are between 28-44 years old. The samples consists of 2 females and 10 males.

2. The description of data collecting instruments

The instruments or methods that we used in this study are a questionnaire and an interview with the ATC of Adrar Airport. First, we have started with the questionnaire, which is illustrated as follow:

2.1. The aim of the questionnaire

The questionnaire of this work was designed for ATC of Adrar –Airport. It aims to identify and analyse their needs in English and find out what the difficulties they may encounter when using English as well as to suggest solutions to their problems.

2.2. Description of the questionnaire

In fact, the questionnaire is simplest, common, and short saving time method that used for collecting data. The questionnaire of this study tries to define the ATC. It took place directly at Adrar airport; it took mainly three weeks answering. It includes twelve open and close questions directed to twelve participants.

Question N 01: Do you think that the English language is important in aviation industry?

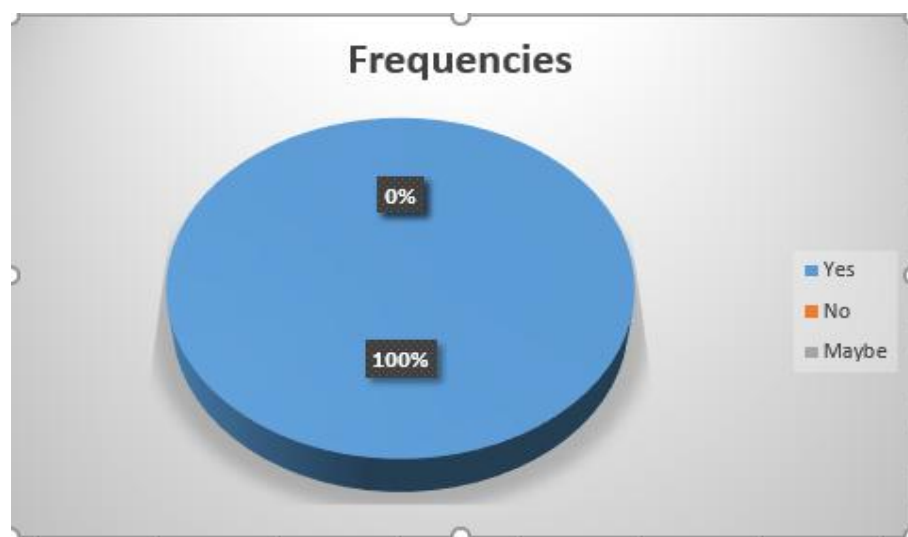| Answers	Frequencies	Percentages
Yes	12	100%
No	0	0%
Total	12	100%

Table N 02: Participant's Opinion about the Importance of English language in the aviation industries.

**Graph 01:** The importance of English language in aviation industry

As it is noticed in the table above, all the participants (ATC) answered with Yes. Which means that all the workers agreed that English language is important in the aviation industry.

Question N 02: Did you receive any national or international training to improve your level in English?

Answers	Frequencies	Percentages
National	12	100%
International	0	0%
Both of them	0	0%
Total	12	100%

Table N 03: Participant's answers considering their national/international training to improve English.
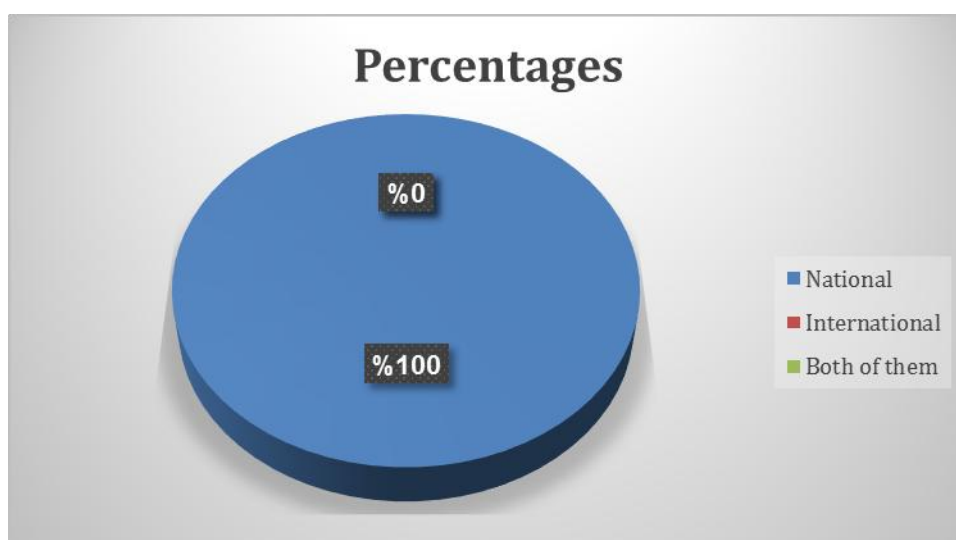

Graph 02: Participant's answers considering their national/ international training.

The table above presents the quality of training that the Air traffic controllers took in order to improve their level in English. It shows that 100% of the ATC has got a national training. The other hand, none of the ATC has got an international training, for it is not accessible.

Question N 03: What did your teacher concentrate emphasize on during your training program?

Answers	Frequencies	Percentages
ESP course	9	75%
GE course	3	25%
Total	12	100%

Table N 04: The type of English courses that the Participants took during their training.
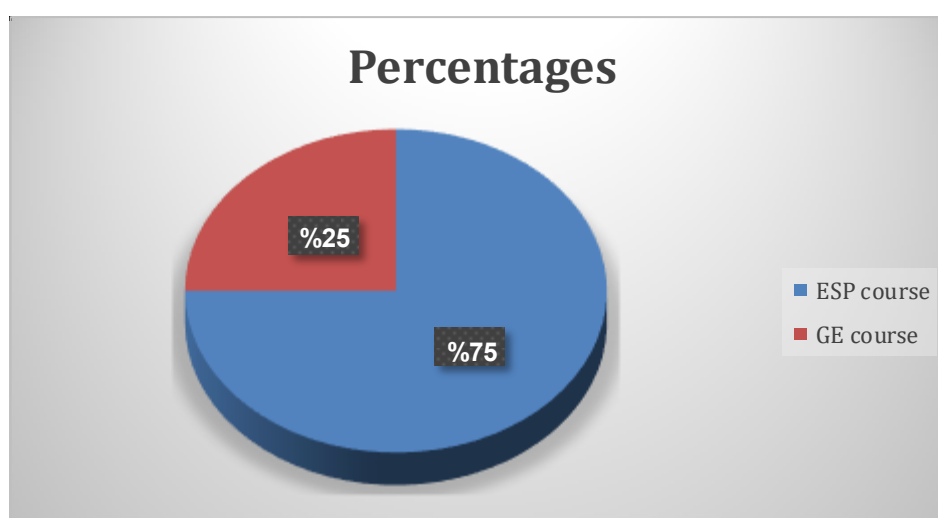

Graph 03: Participant's English courses at training

In the table above, we see that the majority of the respondents replied that the concentration of the teachers was on ESP courses with the percentage of 75%, whereas 66.66% is given to GE.

Question N 04: Indicate the degree of importance to the following four skills during your training

	Very important		Less important		Not important	
	Frequencies	Percentages	Frequencies	Percentages	Frequencies	Percentages
Speaking	12	52 %	0	0	0	0
Listening	11	48%	1	9%	0	0
Reading	0	0	8	73%	0	0
Writing	0	0	2	18%	9	100%
Total	23	100%	10	100%	9	100%

Table N 05: Participants' opinion considering the importance of the four skills.
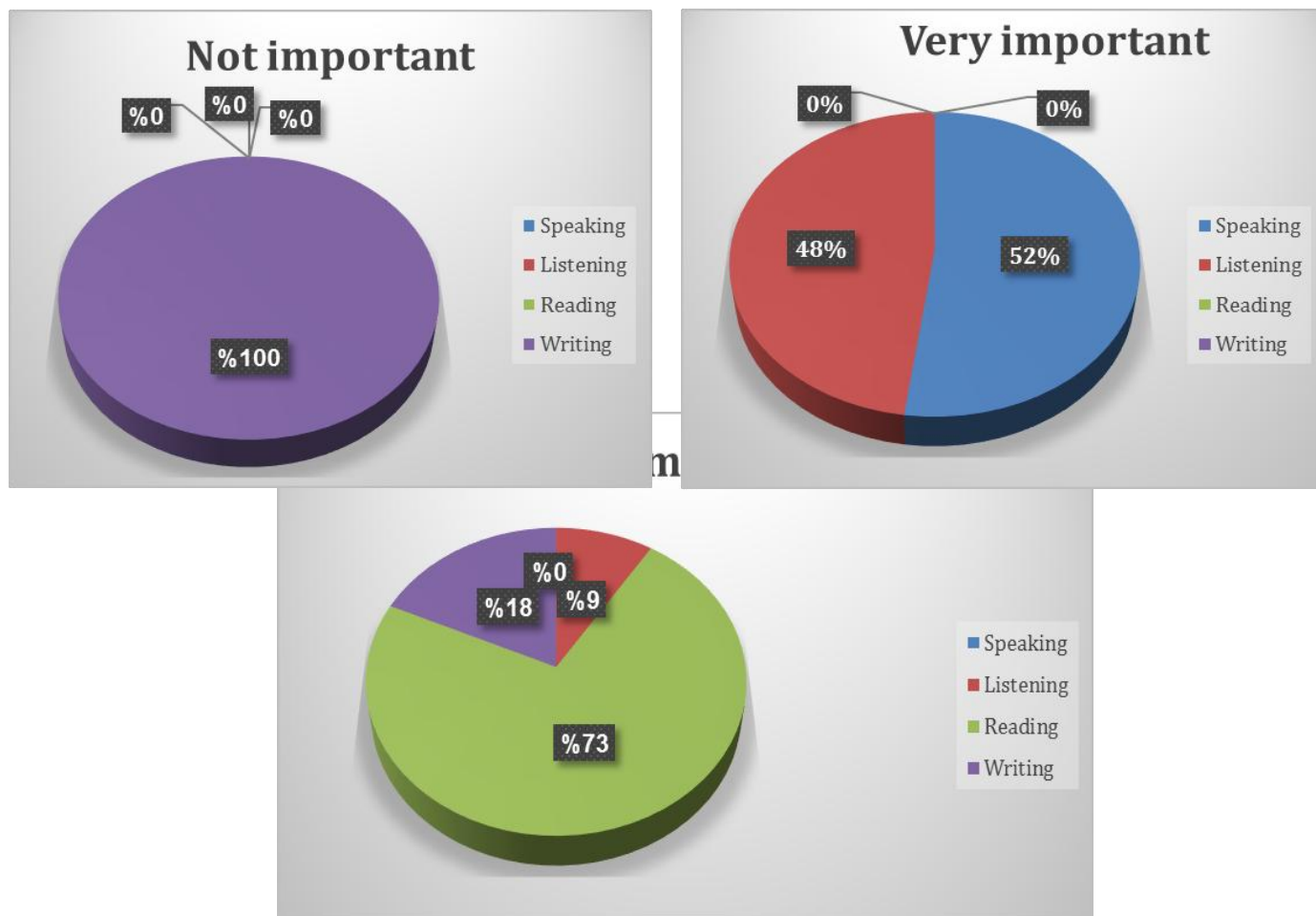
**Graph 04:** The importance of the four skills in the participant's training.

Table 5 presents the degree of importance to the four skills (speaking, listening, reading, and writing) according to the ATC during their training. As we seen in the table above, all the ATC agreed that the speaking skill is very important representing 100%, followed by listening representing 91.66% of the ATC. Whereas, most of the ATC agreed that reading is less important, represented in 66.66%, which indicates that they used it less during their training. Followed by writing skill represented in 16.66% of the workers that agreed it's less

important, and 75% agreed that it's not important at all because it wasn't needed at all during their training.

Question N 05: Do the materials used by your teacher satisfy your needs?

Answers	Frequencies	Percentages
Yes	7	58%
No	5	42%
Total	12	100%

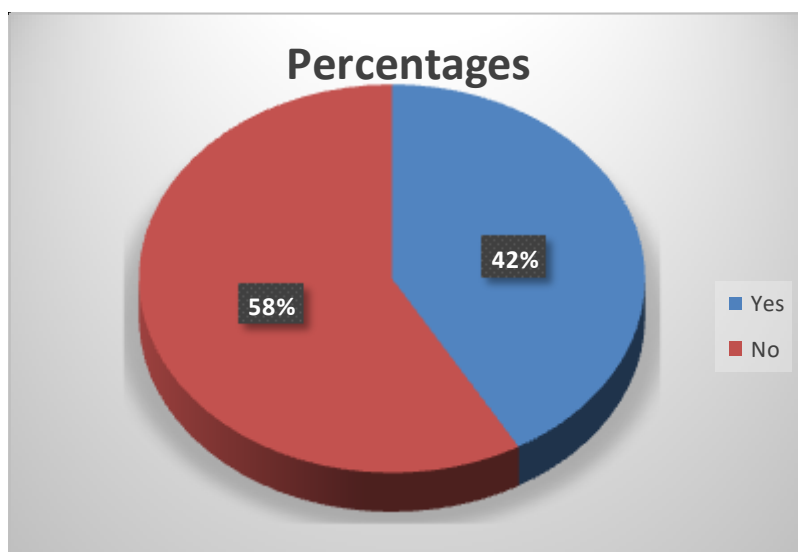**Table N 06:** The participant's opinion towards the materials used in teaching them.
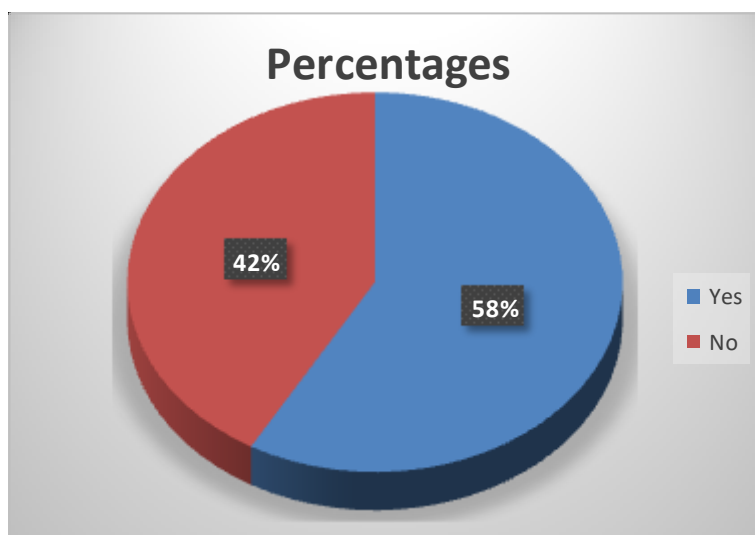
Graph 05: The participant's opinion towards the materials used in teaching them.

As it is shown in the table above, most of the respondents replied with yes representing 58%, which means that most of them were satisfied with the materials used in teaching them. In the other hand, 42% said that the materials used didn't satisfy their needs.

Question N 06: Do you think that the English training program is sufficient to face any situation especially a non-routine one?

Answers	Frequency	Percentages
Yes	5	42%
No	7	58%
Total	12	100%

**Table N 07:** The participant's opinion concerning the training program

Graph 06: The participant's opinion concerning the training program

The data on the table above revealed that 41.66% of the ATC agreed that the English training program is sufficient to face all the situations in their profession. Which means that the number of the satisfied participants with the training program is less than the total number. On the other hand, the number of the participants who thinks that the English training program is not sufficient is represented in 58.33%. Thus, we concluded that most of the participants are not satisfied with it.

Question N 07: What was your level in English after the training program?

Answers	Frequency	Percentages
Average	10	83%
Good	2	17%
Excellent	0	00%
Total	12	100%

Table N 08: The participants 'level in English after taking the training program.
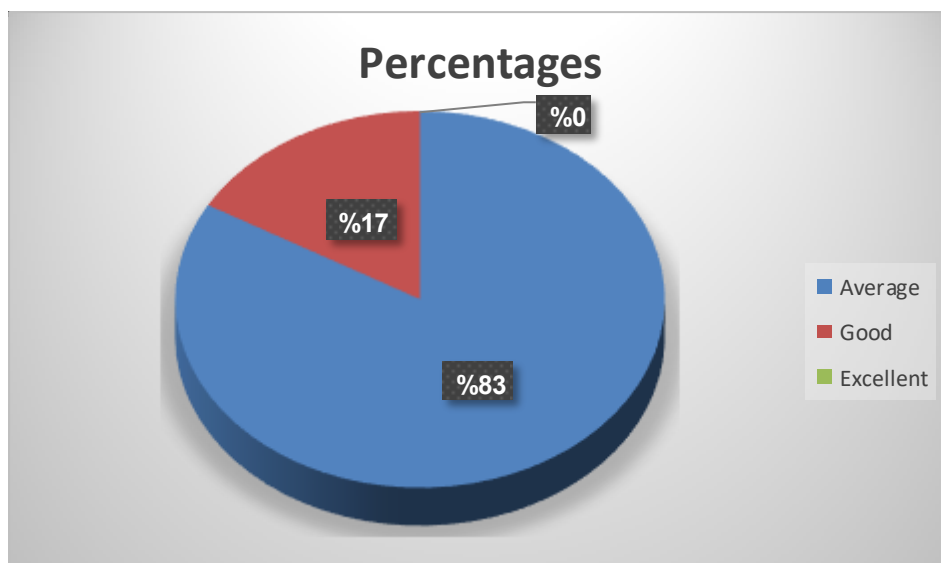

Graph 07: The participants' level in English after taking the training program.

The table above shows that the majority of the participants around 83% have an average level in English. Whereas, the rest 17% got a good level, yet none of the respondents got an excellent level in English.

Question N 08: Have you ever taken one of the following tests?

Answers	Frequencies	Percentages
TOEIC	0	0
IELTS	0	0
TEA	8	67%
Others	2	16%
No	2	16%

Table N 9: The tests that the participants have took
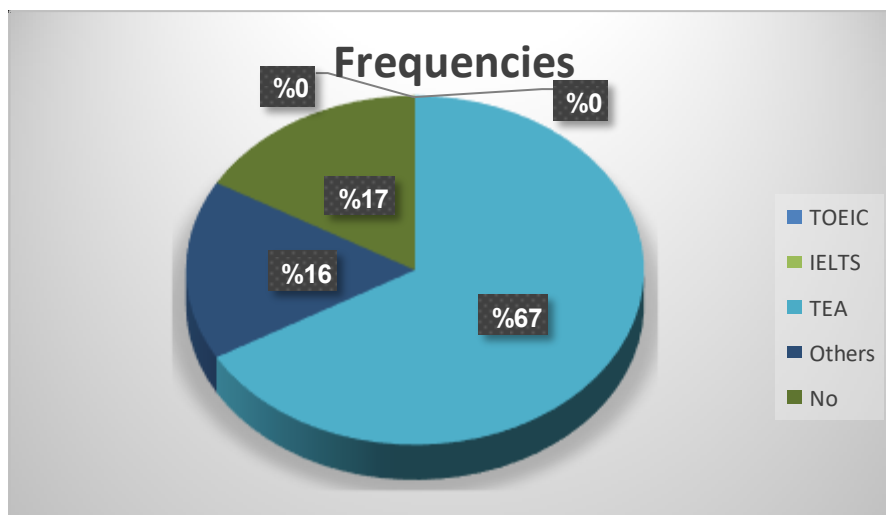

Graph 08: The tests that the participants have took

The data above shows that the majority of the ATC took TEA test (67%), 17% have taken no tests, whereas the rest 16% took other tests.

Question N 09: Are there any guidance materials from ICAO on language proficiency

requirements?

Answers	Frequency	Percentages
Yes	2	17%
No	10	83%
Total	12	100%

Table N 10: Participant's opinion concerning the ICAO materials.
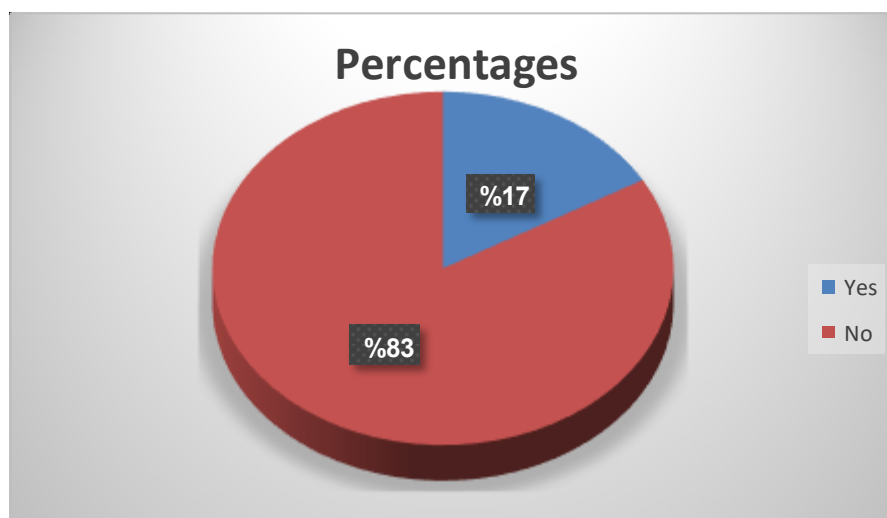

Graph 09: The ICAO materials availability

According to the table above, most of the respondents, 83% say that there are no guidance

materials from the ICAO. On the other hand, 17% of the respondents agreed that there were a

guidance materials directed from the ICAO to them.

Question N 10: Are you required to have an accredited certificate that identifies your level of English in order to get your job as an air traffic controller?

Answer	Frequency	Percentages
Yes	8	67%
No	4	33%
Total	12	100%

**Table N 11:** Participant's requirement in having an accredited certificate of English.
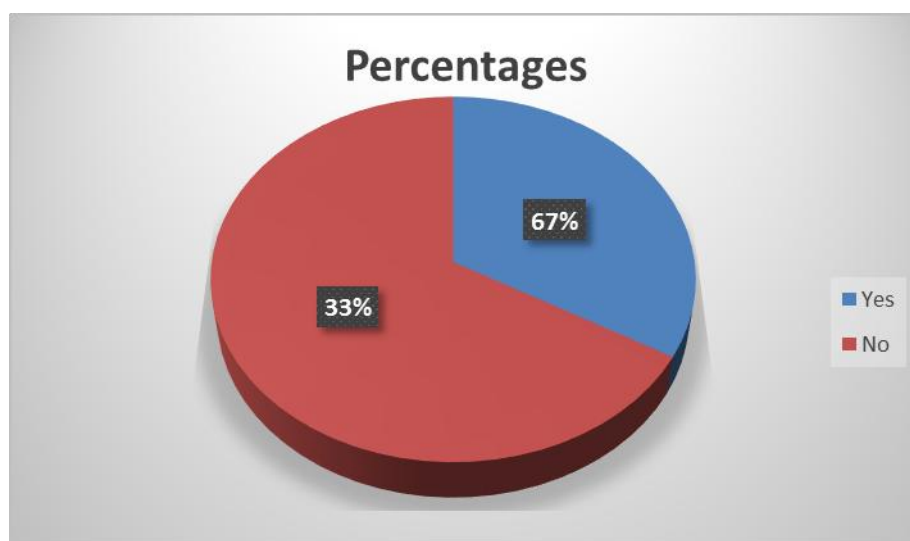
Graph 10: Participant's requirement in having an accredited certificate of English.

As we see on the table above, most of the ATC, 67% said that having an accredited certificate of their level in English is obligatory in order to get their job as an ATC. Whereas, the rest 33% said that having an accredited certificate is not necessary.

Question N 11: How often do you use English to communicate with pilots during your profession?

Answer	Frequency	Percentages
Always	7	58%
Sometimes	5	42%
Rarely	0	
Total	12	100%

Table N 12: The degree of using English for communication between pilots and air traffic controllers.
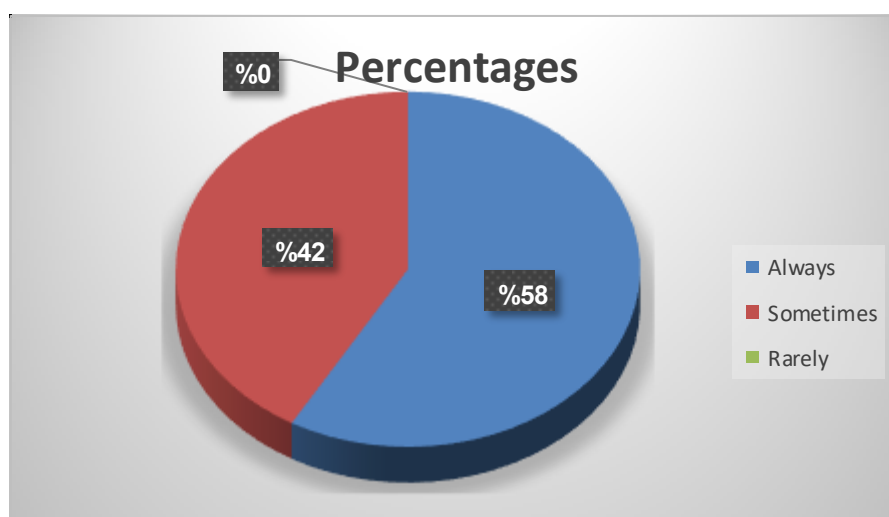

Graph 11: The degree of using English for communication between pilots and air traffic controllers.

    On the table above, most of the respondents mainly 58% said that they are using English to communicate with pilots always. The rest 42% said that they use it sometimes because it depends on what language the pilot uses; sometimes they use French to communicate with the ATC.

Question N 12: How much each of the following English language skills is important in your work? (Listening, speaking, reading, writing, grammar, technical vocabulary).

Skills	Important		Less important		Not important	
	Frequencies	Percentages	Frequencies	Percentages	Frequencies	Percentages
Listening	12	34%	0	0	0	0
Speaking	12	34%	0	0	0	0
Reading	0	0	8	53%	4	18%
Writing	0	0	1	7%	11	50%
Grammar	0	0	5	33%	7	32%
Technical vocabulary	11	32%	1	7%	0	0

**Table N 13:** The degree of importance to the four skills at work as an ATC.
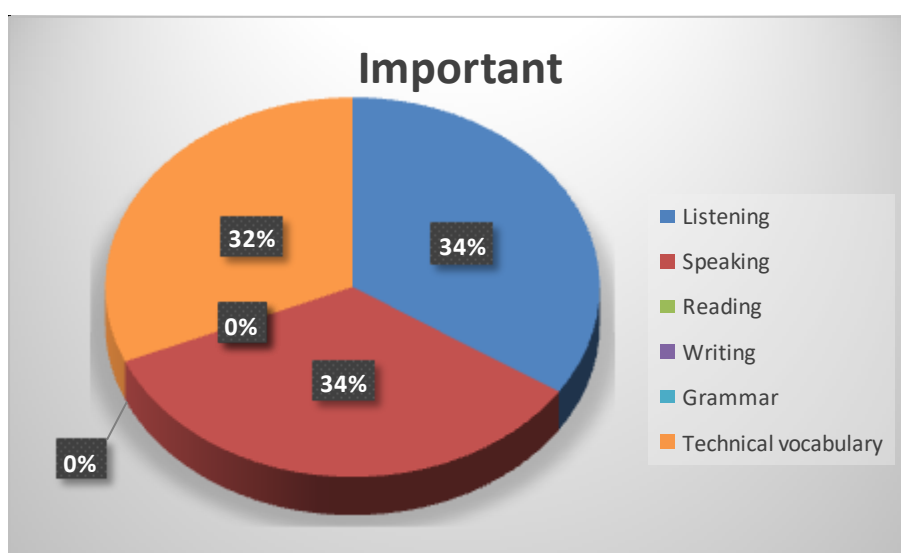
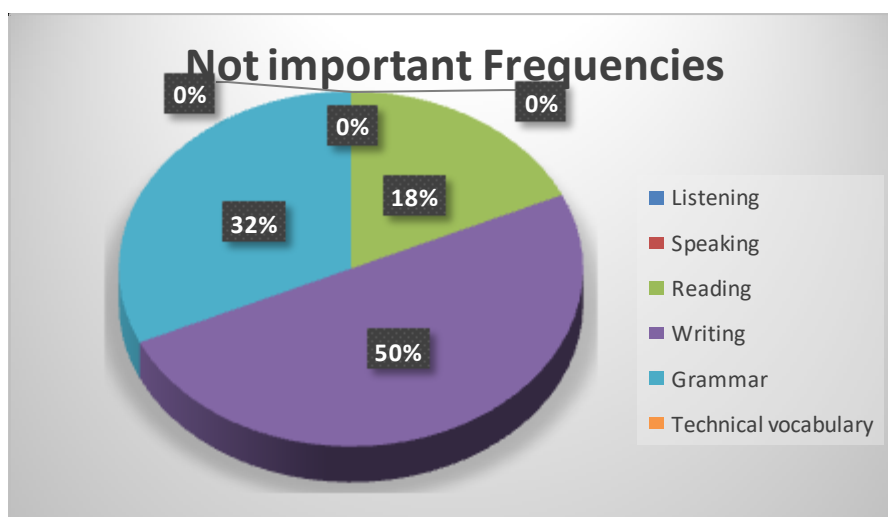**Graph 12:** The important skills at work as an ATC.

The results on the table reveals that Listening (34%), and Speaking (34%) are the important skills among the other four for the ATC, due to its importance in their work because these two skills are the ones that the ATC needs in their communication with pilots.

On the other hand, technical vocabulary is important too (32%) for the ATC because they use technical English not a general one.
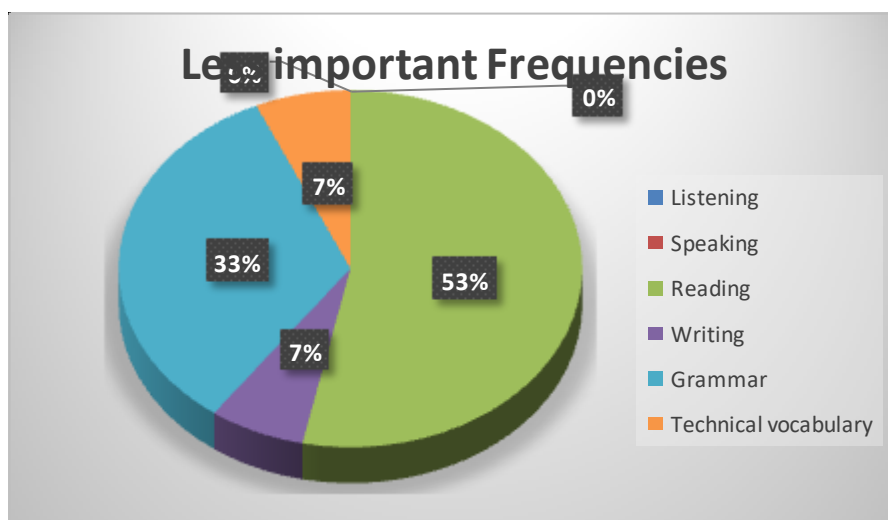
Graph 13: The less important skills at work as an ATC.

The table above shows that Reading skill (53%) is the much less important skill among the other five, followed by Grammar (33%), then Reading (7%), and Writing (7%). For these skills are not needed in the ATC's job.

Graph 14: The not important skills in work as an ATC.

As we can see above, writing skill (50%) is not important at all in the work of ATC, followed by Grammar (32%), and Reading (18%).

3. The interpretation of the results

3.1 The discussion of the findings

The participants chosen in this chapter are the air traffic controllers. This sample is used to gather information about English for aviation at Cheikh Sidi Mohamed Belekbir airport.

The findings of this study revealed that all the participants 100% believe that English for aviation is important in the aviation industry (table 2); since it is the international language of aviation. In addition, it showed that all the respondents 100% (table 3) received a national training to improve their level in English before and after being employed in the aviation field. Furthermore, the third question resulted the answer that 75% of the respondents replied that during their training, their teachers concentrated on teaching them ESP. Whereas, the rest 25% received general English courses.

Question 4 showed that the majority of the ATC (table 5), indicated that listening representing 48%,and speaking 32% were very important English skills for them during their training, because those are the skills they will need the most in their job as air traffic controllers. On the other hand, reading and writing 18%, are less important for them for they are the less needed. Moreover, most of the participants agreed that writing is the skill that is less important at all in their training. 42% of the participants (graph 6) said that the English training program is sufficient to face any situation, especially a non-routine one, and the majority 58% said that it isn't sufficient because it still misses some necessary tips in order to make them more qualified.

Considering the ATC's level in English after their training program, 83% (table 8) of them are convinced that their level is average; because they've got level three in the TEA test. The rest 17% believe that their level in English is good for they got four or five in the

TEA test. This latter is the test that most of the participants 67% have already taken, see table 9, for it is compulsory that they pass that test.

Nevertheless, in the question number nine; 83% of the ATC (table 10) said that international civil aviation organization ICAO didn't provide them with any guidance materials that might help them during their training. In addition, question ten revealed that 67% of the participants think that they are required to have an accredited certificate that identifies their level of English in order to get their job, whereas 33% of them (table 11) think they aren't.

In question 11; 58% of the ATC answered that they really do use English always in order to communicate with pilots during their profession (table 12), and 42% said that they sometimes use it because it depends on the language that the pilots use.

3.2. The interview

3.2.1. The aim of the interview

The aim of our interview was to get farther information through asking questions we didn't ask in the questionnaire.

3.2. 2. Description of the interview

In order to gather the required data, we used a structured interview. The meeting was with the ATC, and it took place at the University of Ahmed Deraia –Adrar in 4/03/2020/ at 9:30.

The following questions are the main questions that we asked during the interview:

a. Do you use English to communicate and discuss daily issues or just in the field of your work?

This question aims to figure out whether the air traffic controllers do use English to communicate with one another on a daily basis or they use it only in cases where they have to transmit the message to the pilot. The result shows that all the respondents said that they don't use English to communicate, they use it only in the field of their work.

b. Where have you studied English for aviation and for how long?

The aim of this question is to find out if there is a private aviation English school. The participants were divided into two groups. The first group studied at the military school of Reghaya, and the second studied at the Aeronautical institute of Blida.

c. Do you have any suggestions for making the training program more qualified?

The aim of this question is to find out suggestions for making the training program more qualified. The ATC suggested having trips outside Algeria to get in touch with foreigner ATC in order to communicate with them and be able to grasp the right language thanks to the linguistic bath.

d. Could you give me examples about English for aviation (phraseology)?

The aim of this question was to have an examples about aviation English (Phraseology) for it's different from the English that we use; for instance, the Alphabet that the ATC use isn't pronounced the same way as the English alphabets commonly used.

The ATC pronunciation of alphabets is called: NATO phonetical Alphabets.

A: Alfa

B: Bravo

C: Charlie

D: Delta

The Civil Aviation Organization (ICAO) developed a new alphabet in the early 1950s, the NATO phonetical Alphabets were designed to minimize the number of errors when spelling a series of letters during a radio transmission between pilots and air traffic controllers.

https://jakubmarian.com/alpha-bravo-charlie-what-is-it/

Conclusion

This chapter treats data analysis and interpretations that obtained from both questionnaire and interview. It noticed that the findings support our hypothesis which stat that English language is very important in aviation industry in general and for ATC in particular.

General Conclusion

English has imposed itself as an international language by covering many fields. Aviation industry is one of these fields. Therefore, mastering the language has become a must for the employees in that field.

This research is a contribution to the field of applied linguistics, the ESP branch. It is a case study of the need for English by the ATC of Adrar Airport. The aim of the research is to answer some questions, like:

-To what extent do the ATC of Adrar airport use English?

-What kind of English is needed and used by the ATC?

-What are the difficulties that the ATC face in their work?

We have started our work by theoretical chapter that is specialized for identifying the main key words of the research. The first chapter entitled ESP and NA. While the second

chapter is about English for aviation. Moreover, the second chapter is also concerned with the practical part of the study. It treats the data analysis and interpretations gathered through both of the questionnaire and the structured interview with the sample (air traffic controllers of Adrar airport).

The findings confirmed the importance of English in the aviation industry in general, and to the ATC in particular. The results revealed that the ATC at Adrar airport use English just for professional purposes along with other languages (French). For that reason, mastering English is obligatory to communicate with pilots and to maintain safety of the aircrafts. The results also revealed that the English used in the aviation industry is called phraseology and plain English, which is too different and complicated type of English. In addition, the need for the improvement of speaking, listening, and technical vocabulary skills. Moreover, the results showed that there are deficiencies and difficulties that the ATC face in the field of their work. One of the main difficulties; is the ambiguity and misunderstanding that occurs during communication with pilots through their work in the aviation industry. The conversation between the ATC and pilots is too short, limited, and full of pauses, as well as, it is complicated technical vocabulary, that makes barrier in communication with pilots. These difficulties prevent them to use correct and complete English.

As a final point, from what we have discussed above we can say that the hypotheses are confirmed. In addition, we can recommend that the ATC do really need to enhance their level of English to avoid risks that may occur for instance, the misunderstanding or the misuse of aviation English that may lead to aircraft incidents. Thus, the ATC needs to be spotlighted, and given more importance and efforts to their training nationally and internationally, for this latter is what they need to master the language and do their job properly.

Limitations of the study

In this research, we have faced many difficulties and obstacles. Like any other research, this study not free from limitations; they are as follow:

First, the most serious difficulty we have faced during this research is the lack of references that deal with the English of aviation. Second, visitation of the airport was not accessible. We have a demand from the Department of English at Adrar University, and it took long time to be answered. The third difficulty lies in meeting with the study sample because they were busy all the time. Another difficulty is that the ATC faced problem in understanding the questionnaire because it was written in a full-structured sentence, which is not the structure they are familiar with in the aviation field.

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Appendix

Air Traffic Controllers' questionnaire

The following questionnaire is related to our dissertation that is entitled English needs analysis of the air traffic controllers at Touat Cheikh Sidi Mohammed Belkbir airport. Thus, we need your help to gather some information about the air traffic controllers; you are kindly requested to answer the following questions.

1- Do you think that the English language is Important in the aviation industry?

☐ Yes

☐ No

☐ Maybe

2-Did you receive any national or international training to improve your level in English?

☐ National

☐ International

☐ Both of them

3-What did your teacher concentrate on teaching you during your training program?

☐ General English courses

☐ ESP courses

4- Indicate the degree of Importance to the following four skills during your training.

Skills	Very important	Less important	Not important
Speaking			
Listening			
Reading			
Writing			

5- Do the materials used by your teacher satisfy your needs?

☐ Yes

☐ No

1-   If yes , ☐ it   Completely ☐   Partly

6- Do you think that the English training program is sufficient to face any situation especially a non-routine one?

☐ Yes

☐ No

7- After this training program, how would you evaluate your level?

☐ Average

☐ Good

☐ Excellent

8- Have you ever taken one of the following tests?

☐ TOEIC (Test of English for international communication)

☐ IELTS (International English language testing system)

☐ TEA (Test of English for aviation)

☐ Others

9- Are there any guidance materials from ICAO on language proficiency requirements?

☐ Yes

☐ No

-If yes, mention them

-

-

-

10- Are you required to have an accredited certificate that identifies your level of English in order to get your job as an air traffic controller?

☐ Yes

☐ No

- If yes , is it

☐ National   ☐ International

11- How often do you use English to communicate with pilots during your profession?

☐ Always

☐ Sometimes

☐ Rarely

12- How much each of the following English language skills is important in your work?

[Listening, speaking , reading , writing , grammar , technical vocabulary]

Skills	Very important	Less important	Not important
Listening			
Speaking			
Reading			
Writing			
Grammar			
Technical vocabulary			

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الملخص

هذا البحث موجه لمراقبي الحركة الجوية بمطار الشيخ محمد بلكبير أدرار. إنها دراسة حالة تهدف إلى معرفة إلى أي مدى يتم استخدام اللغة الإنجليزية من قبل هؤلاء المراقبين الجويين؛ بالإضافة إلى تحديد ما هي احتياجات ورغبات ونقائص المخبرين وكذلك اقتراح حلول لمشاكلهم. في هذه الدراسة ، استخدمنا مناهج و مواد تمثلت في الاستبيان والمقابلات ومراقبة برج المراقبة. أظهرت نتائج هذه الدراسة أن المراقبين الجويين إستخدمو اللغة الإنجليزية بشكل يومي في مجال عملهم ، حيث إنها لغة الطيران العالمية. لكنهم يستبدلونها بالفرنسية من حين لآخر حسب اللغة التي يستخدمها الطيار. من ناحية أخرى ، كان جميع المراقبون الجويون على دراية بأهمية اللغة الإنجليزية في مجال الطيران ، وضرورة تطوير كفاءتهم فيها ، من أجل أداء عملهم بشكل صحيح وضمان السلامة في المطارات. وبالتالي ، فقد سعوا إلى تعزيز كفاءتهم في اللغة الإنجليزية ، في مهارات التحدث والاستماع على وجه الخصوص لأنهم هم الأهم في مجال عملهم. في النهاية اللغة الإنجليزية مهمة جدا في مجال الطيران بشكل عام ، و للمراقبين الجويين بشكل خاص ، لأنهم هم المطالبون بإستخدامها وكذلك إتقانها من أجل الحفاظ على سلامة الطيران. وبذلك كانوا يدركون أهميتها وحريصين على تعزيز كفاءتهم فيها.

الكلمات المفتاحية : اللغة الإنجليزية لأغراض محددة (ESP) ، تحليل الاحتياجات ، مراقبو الحركة الجوية (ATC) ، اللغة الإنجليزية للطيران

</div>

Abstract

This research was directed to the Air Traffic Controllers (ATC) at Touat Cheikh Sidi Mohamed Belekbir Airport. It is a case study aimed to find out to what extent the English language is used by those ATC; in addition, to identify what the needs, wants, and lacks of the informants are as well as proposing solutions to their problems. In this study, we used methods and materials represented in the questionnaire, interviews, and control tower observation. The results of this study revealed that, the ATC used English on a daily basis in their field of work, since it is the global language of aviation; however, they replace it with French from time to time according to the language used by the pilot. On the other hand, all the ATC were aware of the importance of English in the aviation industry, and the need to develop their proficiency in it, in order to perform their work properly and to ensure safety at airports. Thus, they aimed to enhance their competence in English language, in speaking and listening skills in particular for they are the most important in their field of work.

Keywords: English for specific purposes (ESP), Needs analysis, (ATC), English for aviation.