The effects of English for Specific Purposes on the English Reading Comprehension Level of Psychology students at University of Cuenca, Ecuador

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Resumen

El inglés para propósitos específicos (ESP) es un enfoque que se centra en el estudiante y se fundamenta en cubrir sus necesidades e intereses, puesto que se basa en la enseñanza de temas específicos relacionados a su campo de estudio. El ESP está más vinculado al lenguaje en contexto porque existe una estrecha relación entre el estudiante y el material específico auténtico utilizado en clase. En este contexto, el objetivo de este estudio fue establecer los efectos que el inglés para propósitos específicos tuvo en el nivel de lectura comprensiva en los estudiantes de Psicología en la Universidad de Cuenca, donde la enseñanza-aprendizaje de inglés en sus niveles de créditos se basa solamente en inglés general. La intervención se realizó con un grupo de 25 estudiantes registrados en el primer nivel de créditos de inglés de la Facultad de Psicología durante el semestre marzo-agosto 2016. Para recolectar la información, este estudio utilizó tanto instrumentos cuantitativos como cualitativos tales como pre-test y post-test, registros escritos de los estudiantes, entrevistas personales y una encuesta. Aunque este estudio no fue estadísticamente significativo, hubo evidencia de una mejora en el nivel de lectura comprensiva, así como también en el desarrollo de las otras destrezas del lenguaje. Además, según las percepciones de los estudiantes se podría decir que se sintieron motivados e interesados en leer textos de acuerdo a sus necesidades e intereses. En resumen, la aplicación del enfoque del ESP en el proceso de enseñanza aprendizaje del idioma inglés puede ser muy útil para los estudiantes, ya que ellos pueden alcanzar aprendizajes significativos que les permitan defenderse como futuros profesionales en un mundo competitivo y desafiante.

Palabras clave: Comprensión lectora, CBI, ESP, Análisis de Necesidades
Abstract

English for Specific Purposes (ESP) is a student-centered learning approach based on covering learners’ needs and interests, since it focuses on topics related to their field of study. ESP is more involved in language in context, because there is a close relationship between the learner and the specific authentic material used in class. In this context, the goal of this research study was to establish the effects ESP had over the English reading comprehension level of Psychology students at the University of Cuenca, where English teaching at its mandatory levels is only focused on General English. By using a convergent parallel mixed method, the intervention was carried out with a group of 25 students registered in the First Level of English credits from the School of Psychology during the semester March-August 2016. To gather information, this study used both quantitative and qualitative data collection instruments such as a pre-test, a post-test, students’ journals, personal interviews, and a closed-question survey. Although, this study was not statistically significant, there was evidence of an improvement in the reading comprehension level as well as in the development of other language skills. Also, based on the students’ perceptions it can be said that the students were motivated and interested in reading texts in line with their needs and interests. In sum, to apply the ESP approach in the English teaching-learning process can be very useful for students, since they can get meaningful learning that let them cope as future professionals in a competitive and challenging world.

Key words: Reading comprehension, Content Based Instruction, ESP, Needs Analysis
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Dedication

To my dear children, David and Doménica, who are the main reasons for me to continue every day. To my mother, Alicia, who has always been my stalwart helper and support in the hardest moments. To my father, Abraham, who is in heaven, he has always been my model and inspiration; I know he would be very proud of me. To all of them, my love and gratitude for supporting me to reach my goal.
Introduction

Nowadays, English is considered a universal language since it is used in different areas such as science, business, diplomacy, medicine, research, education, tourism, and technology all over the world. For this reason, over the years, studies around the world have shown that one of the most important skills that English as a Second Language (ESL) and English as a Foreign Language (EFL) university students need to acquire is the ability to read and understand academic texts about their field of study (Sidek, 2012).

Studying EFL is mandatory in most schools, high schools, and universities in Ecuador, and the University of Cuenca is no exception. The University Language Institute (ULI) has a syllabus that focuses on General English only in order to comply with academic requirements (Appendix A). However, General English as such does not prepare students for the challenges that they may face later on in their academic careers. For example, if students want to learn or investigate any topic about their majors, there is a significant probability that it will need to be in English because of globalization and the accessibility to studies all over the world. As professionals, people should develop their reading comprehension skills to be able to read articles related to their professional field (Sidek, 2012). English for Specific Purposes (ESP) is different from General English teaching because it focuses on the professional and specific academic needs of English learners. Hutchinson and Waters (1987) define it as follows: “ESP is an approach to language learning and it is based on learners’ needs” (p. 7) and has become even more important with the globalization of the English language as the main means of communication in different contexts.

According to the literature review, it appears that English for Specific Purposes has been applied in different educational fields around the world; however, there is little use of ESP in the field of Psychology. The aim of this research is to determine the effects of English for Specific Purposes on the English reading comprehension of EFL students of First Level at the
School of Psychology. The intervention involved frequent practice with clear purposes and expectations regarding the reading process. For this study, some theories about reading comprehension and English for Specific Purposes have been investigated to support the application process.

The present study consists of seven chapters:

Chapter one presents the research description that contains the background to and the justification of the topic, the problem statement and the research questions, and the general and specific objectives of this study.

Chapter two contains the theoretical framework that includes the major theoretical foundations used in this study: Reading Learning Theories, Reading and Reading Comprehension, and Content-Based Instruction (CBI) + English for Specific Purposes (ESP).

Chapter three is the Literature Review that analyzes and reports some studies and findings about ESP application in EFL classes and ESL classes.

Chapter four sets out the research methodology applied to a group of EFL First Level credit course students from School of Psychology at the University of Cuenca, Ecuador. It includes a detailed description of the participants, the intervention, the instruments and procedures used during the intervention.

Chapter five analyses the significance of the results obtained from the data following the intervention.

Chapter six comprises the discussion based on the quantitative and qualitative results of this study, where the findings and limitations are analyzed and contrasted with previous studies.

Chapter seven summarizes the conclusions and recommendations based on the results of this study for further research on the topic.
Chapter I

Research Description

1.1 Background and Justification

English is known as the Lingua Franca because these days it is the most common language around the world; therefore, it is essential for people, especially for students and professionals, to learn and improve their English. In the academic field, most publications are written in English; according to Hutchinson and Waters (1987) English for Specific Purposes has grown gradually since 1960 and it has played an important role in English Language Teaching (ELT).

Reading comprehension in English has a great importance in the context of thinking activities, due to the fact that students need to develop the skill of reading in an analytic way (Sagirli, 2016). Grabe (as cited in Bautista Barón, 2013) affirms that the reading process should be focused on the use and training of multiple strategies to achieve a high level of comprehension. Bautista Barón (2013) also cites Scott and Winograd, who suggest that to make students feel more engaged, they ought to be trained in the terminology of their field of study. Bautista Barón (2013) agrees with the latter point of view and suggests that ESP content-based materials should be used to promote strategic reading, and that students will need to become autonomous learners. Teachers should help students to overcome comprehension difficulties when they read and prepare them to get that autonomy in learning.

Based on the Curricular Reform undertaken by the University of Cuenca, the Language Department, today known as the University Language Institute, entered the credit system for English teaching from the academic semester of September 2009-February 2010 with the main purpose of facilitating students’ mobility from one major to another, or from one school
to another. The program includes three mandatory levels of General English focusing on the development of the four skills. These levels are divided into three courses (English I, English II, and English III) with 96 class hours in each. At the end of the three levels, the students will have attended 288 hours and are expected to reach a B1 English level according to the Common European Framework of Reference for Languages (Appendix B).

However, according to some ULI performance reports on the students finishing these mandatory courses, it is clear that the majority do not reach the B1 level. This becomes a limitation since they do not have the English language proficiency level required to be admitted in national or international postgraduate programs (Appendix C). This observation is also supported by the Final Report of the Evaluation of the English Language Program Universidad de Cuenca, Ecuador, March 1, 2015 carried out by Dr. Lois Meyer, an external evaluator from the University of New Mexico, who says:

The three Credit English courses required of all U Cuenca students do not achieve even the lowest Independent User language competencies (B1) of the EFL. The third basic Credit Course targets only very basic English language competencies (A2) and half of the B1 competencies. Students would have to take the Int-6 course in addition to the three credit courses in order to address all the B1 competencies. (Meyer, 2015, p. 33)

For these reasons, from the second semester of 2014 onwards, the School of Psychology decided to include English for Specific Purposes in its three credit courses. The English teachers’ intention was to help students to improve their reading comprehension level and also to develop other skills (speaking, writing, and listening) to reach the expected level (B1) at the end of the three semesters (Appendix D).
Based on the same report, it is hoped that Psychology students could be reaching the expected level more confidently. Meyer (2015) states:

The series of three Credit English courses taught in Psychology seem uniquely adapted to target the academic needs of students in fields related to the discipline of Psychology. This is what is called English for specific purposes. As described, these Credit Courses seem to address many of the B2 language competencies, though they focus only on academic texts in Psychology, not on text that discuss “a wide range of subjects”, as required by the B2 competencies. (p. 34)

Since this assertion had not been proven statistically, the aim of this research was to find out the effects of ESP on the reading comprehension level of Psychology students at the University of Cuenca.

It has also been found in the evaluation report that students at the University of Cuenca are interested in reading articles related to their field of study. Meyer (2015) says that “It is significant that more than ¾ of the surveyed students wished that half or more of their English course would focus on their major” (p. 54).

Under these circumstances, the School of Psychology has been applying the ESP approach based on its students’ needs since 2014. It can be said that this is a student-centered approach since it provides the students with the opportunity to learn English through material related to their major and become more independent learners.

Arias (2014) states that well-chosen reading activities in ESP are essential, because texts become meaningful to students when they are able to connect their previous knowledge with the new knowledge in English in their special field. Another advantage of the application of ESP in this manner is that students can improve general language skills. Tratnik (as cited in Arias, 2014) supports this idea when he argues “special attention in ESP teaching should be
focused on ways of promoting skills, which encourage and enable learners to respond to
different day-to-day situations and react properly in special circumstances” (p.111).

Consequently, an ESP course should be designed depending on the reason what people
need English for. The guiding principle of ESP is stated by Hutchinson and Waters (1987)
when they affirm, “Tell me what you need English for and I will tell you the English that you
need” (p.8). As any other language, English is a complex language, and its vocabulary is very
extensive. People who need to buy machines for their industries need to learn technical
vocabulary to understand how the machine works. A sales person needs to communicate with
their clients and offer his/her products to external partners. In this case, Psychology students
need to be familiarized with terms related to Psychology in order to be able to read scientific
articles and new research in their field of study.

1.2 Problem Statement

English for Specific Purposes has not been commonly applied at the University Language
Institute where, as it was mentioned above, the teaching-learning process is focused on
General English. It does not include specific texts to develop reading comprehension skills.
This is why, in her report, Meyer (2015) states:

Students’ views were far more mixed about the OpenMind textbook. Although a large
majority initially said they liked the textbook, more than half reported that its topics
were not related to their field of study, nor did it prepare them to converse with
English speakers or to study abroad. (p. 54)

It is clear that a deficiency in reading comprehension can cause serious problems when
one wants to achieve a good professional, technical, and social standard. Therefore, it is
crucial for university students to be exposed to ESP, since this approach might increase their
English reading comprehension level. This research intended to test whether the theories of
Hutchinson and Waters (1987); Dudley-Evans and St. John (1998) claiming that ESP in specific reading comprehension academic contexts work, are true or not. Consequently, this study aimed at determining the effectiveness of ESP through a mixed method design using both quantitative and qualitative data.

The expectation is that a study of this kind can be an important contribution to linguistics in general. It could also contribute to the improvement in the English reading comprehension level of students at the University of Cuenca.

1.3 Research Question

To what extent can ESP improve the English reading comprehension ability of Psychology students?

What are the students’ perceptions about their own reading comprehension in an ESP context?

1.4 Objectives

General

To establish the effects ESP has over the English reading comprehension level of Psychology students.

Specific

- To determine the English reading comprehension level of the students before and after the application of ESP through a standardized test.
- To explore students’ perceptions regarding their reading comprehension level through a mixed method strategy.
- To compare the quantitative and qualitative results and analyze their relationship.
The application of the ESP approach (the independent variable) seeks to improve the students’ English reading comprehension level (the dependent variable) effectively towards the acquisition of an A2 level according to the CEFR.

1.5 Context

This study was done with a convenience group of twenty-five students from eighteen to twenty-four years old registered in the First Level of English credit course from the School of Psychology at the University of Cuenca. The research took place during the semester March – August 2016. The students had six hours of English classes per week; however, the ESP intervention was done only for three hours a week over twelve weeks. It focused mainly on reading skills using articles, projects, and activities related to Psychology. As a result of using this kind of materials, other language skills such as writing, listening and speaking also improved during the process. The data collection included both qualitative and quantitative instruments.

In order to obtain quantitative data, a pre-test and a post-test were administered before and after the intervention to measure the reading comprehension level based on an international standardized test, from the level A2 of the Common European Framework of Reference. It was taken from the Exam English website (Exam English Ltd., 2016).

To collect the qualitative data, the students were asked to write short journals to answer different questions in order to find out their perceptions about the program. Furthermore, interviews were conducted with six of the participating students chosen randomly.

Additionally, in order to triangulate the information obtained in the qualitative data, a survey about the students’ anxiety levels and perceptions when reading in English was applied. This instrument was taken from a study carried out with EFL students at the Institute
of Foreign Languages in Cambodia. The questionnaire had 20 closed-questions, with ordinal variables with qualitative scales of qualification. It was validated in the local context by using a pilot group of 30 students of the First Level of English credits from the University Language Institute. The full set of data gathered is presented in the chapter entitled “Results”.

In conclusion, under these circumstances the present study attempts to understand the relationship between the ESP and English reading comprehension level of the Psychology students. For this reason, this study is based in some conceptual referents as in the literature review, which will be presented in the next chapter.
Chapter II
Theoretical Framework

This chapter presents the main theoretical foundations that were used to support this research study and they are as follows: Reading Learning Theories, Reading and Reading Comprehension, and Content-Based Instruction + English for Specific Purposes.

2.1. Reading Learning Theories

What follows is an overview of the major reading learning theories. They explain the process of learning how to read and what has led teachers to a variety of views about instructional choices to help students develop successful reading strategies.

2.1.1 Bottom-Up Theories

“Bottom-up theories of reading have their roots in behaviorism (1950), which involves the stimulus-response model of behavior. If given a stimulus often enough, the correct response will eventually be learned” (Bringe, 2007, p. 8).

According to Omaggio (as cited in Pardede, 2010), behaviorism claimed learning was based upon habit formation brought about by the repeated association of a stimulus with a response. In other words,

…the language learning was characterized as a response system that humans acquire through automatic conditioning processes, where some patterns of language are reinforced (rewarded) and others are not, and only those patterns reinforced by the community of language users will persist. (Pardede, 2010, p. 1)

According to Nunan (1991), reading in this view is basically a matter of decoding a series of written symbols into their aural equivalents in the quest for making sense of the text. On
the other hand, Reutzel and Cooter (as cited in Bringe, 2007) state that in the process of reading, the stimulus for reading is the print on the page. It is a bottom-up reading process, progressing from the parts of language (letters, words, sentences, paragraphs) to the whole (meaning).

Bottom-up theorists assert that there is a direct relationship between decoding and comprehension; if a student can decode, and hear or pronounce the words correctly, then comprehension of the text will automatically follow. Therefore, correctness is expected when decoding and reading words. The rationale of bottom-up theories is comprehension of the text, and according to this theory, it can be accomplished by a series of steps from the parts of words to the whole.

A major weakness of bottom-up theories is that reading is more than just decoding; so, this model has usually been under attack as being insufficient and defective for the main reason that it relies on the formal features of the language, principally words, and structure.

2.1.2 Top-Down Theories

In the 1960s, a paradigm shift occurred in the cognitive sciences. The 'top-down' model is in direct opposition to the 'bottom-up' model. According to Nunan (1991) and Dubin and Bycina (1991), the psycholinguistic model of reading and the top-down model are in exact concordance. As Pardede (2010) stresses:

Behaviorism became somewhat discredited as the new cognitive theory represented the mind’s innate capacity for learning, which gave new explanatory power to how humans acquired their first language; this also had a tremendous impact on the field of ESL/EFL as psycholinguists explained 'how such internal representations of the foreign language develop within the learner’s mind'. (p. 2)
Goodman (as cited in Bringe, 2007) emphasizes the importance of prior knowledge and experience:

In top-down theories what the reader brings to the text in terms of prior knowledge and experience will determine comprehension, not merely the print, or letters and words. Subskills are not specifically taught because it is felt that they break up the process and make learning to read more abstract and difficult. (p. 9)

For example, if a student is reading a text and finds an unknown word, the student can use his/her previous knowledge about the topic to decode the word, rather than start decoding it from its sounds and letters. Teachers who use top-down theory do not focus on accuracy to guide their instruction. Instead, they focus on the student’s understanding of the principal message of the text, and it is not important if specific words are missed. To read whole texts through read alouds, songs, and poetry is the starting point of instruction. Nevertheless, the comprehension of texts is the main goal of both theories as regards reading instruction (Bringe, 2007).

According to Smith (as cited in Pardede, 2010) top-down theories revolutionized the understanding of how students learn to read. In this view,

…reading is not just extracting meaning from a text but a process of connecting information in the text with the knowledge the reader brings to the act of reading. In this sense, reading is a dialogue between the reader and the text, which involves an active cognitive process in which the reader’s background knowledge plays a key role in the creation of meaning. (p. 3)

Reading is a purposeful and rational activity which depends on the expectations and prior knowledge of the reader. It is not a passive, mechanical activity that only attempts to decode the printed language into sounds. It tries to make sense of the written language.
The bottom-up and top-down theories exclude an important component of reading acquisition, namely, phonics instruction, which is a major weakness. Both of them represent extremes of the reading process. Teachers who decide to work with either of these theories are not including other research-based components of sound reading instruction. After many debates over these theories, it has been found that the best reading instruction will occur when both of these theories are combined. This combination has resulted in the *interactive theories* of reading instruction (Bringe, 2007).

### 2.1.3 Interactive Theories

Interactive reading theories have their origins in Cognitive Psychology and emphasize that students have to process both sounds and words and information at the same time from the text. They use their prior knowledge to decode words to make sense. Text comprehension can be determined by factors such as the reader’s perceptions, beliefs, problem-solving strategies and motivation. Reading comprehension views rooted in Cognitive Psychology highlight the interactive nature of reading and the constructive nature of comprehension. Interactive theories include the best of both the bottom-up and top-down theories, while diminishing the weaknesses of both (Bringe, 2007).

The use of strategies to help students learn about what is needed to understand a text is taught by models of instruction that employ the interactive theory. These strategies include context clues, reading sentences, and sounding out unknown words. The result of using these strategies in any reading context will be text comprehension. Precision in the interactive theory is important, but not as important as in the bottom-up theories. For example, when students are given a problem to solve in reading, a wide range of answers can be acceptable (Bringe, 2007).
Skills-based instructional approach will be applied by teachers who chose the interactive theories of reading for their teaching method. It has three components: comprehension, vocabulary, and decoding, which are equally important in the reading process. Students will work on skill lessons, which focus on comprehension, vocabulary and decoding skills when they read a story. The texts are controlled by the teacher in order to make a match between the students’ skill level and background knowledge and the text. Students will discuss unfamiliar words and concepts using their prior knowledge during the reading of the text (Bringe, 2007).

2.1.4 Transactional Theories

Transactional theory started with the work of Dewey and Bentley (1949) and later of Louise Rosenblatt, (1978) who postulated a socio-cultural basis for reading (Bringe, 2007). These theories are also based on constructivism, a student-centered learning theory that represents the culmination of several distinct lines of research: Developmental Psychology (Piaget), Socio-historical Psychology (Vygotsky), and Semiotic Interactionism (Bruner, Gardner, Eisner, & Goodman). Meaningful learning is at the core of constructivist theory. It defines learning as active knowledge construction and underlines the importance of background knowledge, sees students as naturally curious, promotes collaboration not competition, and recommends techniques to engage students so they can be successful (Bringe, 2007). She emphasizes that readers react to texts based on the social context. The transactional process means that students make decisions as to their interpretation when they are reading, based on mood, location, reasons, pressures, and purposes (p. 13).

As Bringe (2007) states:

In this theory, the wholes and parts (words and letters) are given equal importance, but both together are not as important as what the reader brings to the print. Therefore, much discussion is given to a text before, during, and after a reading. Correctness is
minimized, as different readers will interpret the text differently, so this theory emphasizes the idea of interpretation by the reader, and posits comprehension and decoding as a natural part of the process. (p. 13)

Teachers and students are involved in everyday reading employing techniques that permits the teacher to read to the students, to work with individuals and groups, and lets students to practice reading by themselves. Teachers regularly evaluate students and use these evaluations to guide upcoming lessons in order to meet the needs of all students (Bringe, 2007).

To conclude, this summary of reading learning theories underpins the goals of the present research. Moreover, with a basic understanding of the theoretical basis of reading, teachers can take advantage of the most useful methodologies associated with the different approaches for the improvement of teaching reading to learners of a foreign language.

2.2 Reading and Reading Comprehension

2.2.1 What is Reading?

Reading is one of the four skills in language learning beside speaking, listening and writing. It is the way to understand written messages.

According to Nuttal (2000) reading means a result of interaction between the writer’s mind and the reader’s mind. It is the way how the reader tries to get the message or the intended meaning from the writer. In this process, the reader tries to create the meanings intended by the writer; the reader can get the message, and the writer’s meaning sense. (Reutzel, Cooter, & Reutzel, 2013, p. 9)

There are other definitions about what reading is.

According to Pang (2003), reading is defined as understanding written texts. He says that reading consists of two related processes: word recognition and comprehension.
Word recognition is defined as the process of getting how written symbols correspond to one’s spoken language while comprehension is the process of making the meaning of words, sentences and connected text. (Reutzel et al., 2013, p. 9)

Alternatively, Snow, Burns, and Griffin (as cited in Reutzel et al., 2013) provide a more expanded definition:

Reading is a complex developmental challenge that we know to be intertwined with many other developmental accomplishments: attention, memory, language, and motivation, for example. Reading is not only a cognitive psycholinguistic activity but also a social activity. (p. 10)

Based on these definitions, it can be said that reading is an instantaneous recognition of written symbols with prior knowledge, as well as the information comprehension of the communicated message. In other words, when a reader interacts with texts, he/she tries to gain the written information or to understand the messages from the writer. It means that reading is not only the process of getting the written symbols of the spoken language, but it is also the process of making the meaning of words, sentences, and the text itself.

In conclusion, it can be said that the principal goal of reading instruction is to empower readers to learn, grow, and participate in a changing information-based world, because the main purpose of reading is to comprehend the ideas in the text. Reading would be empty and meaningless without comprehension.

2.2.2 Reading Process

Reading is an important means of communication. “Readers and writers interact through the reading of a text. Reading also offers additional exposure to the language, an exposure that can be often stimulating, interesting, and up-to-date in terms of vocabulary” (Lindsay, 2000, p. 18).
As has already been stated above, reading is a process. Authors usually describe two approaches in reading: bottom-up and top-down processes. According to Brown (2001), in the bottom-up process, readers recognize different linguistic signals as letters, morphemes, syllables, words, phrases; then they use their linguistic data-processing mechanism to put the words together to arrive at an understanding of the author’s written message. This process is also known as data-driven operations. On the other hand, in the top-down process, readers draw on their own intelligence and experience to understand a text. It is also called conceptually-driven processing. To illustrate these processes, Nuttall (as cited in Brown, 2001) compares the bottom-up process with the image of a scientist using a microscope and examining all the details of some phenomenon, while the top-town process is like an eagle’s-eye view of a landscape below.

Initially, most teachers used the bottom-up process or the top-down process to teach reading, but nowadays they are using a combination of bottom-up and top-down processes, which has been called interactive reading (Brown, 2001). To support this assertion, Nunan (1999) argues that “Reading is an interactive process, in which the reader constantly shuttles between bottom-up and top-down processes” (p. 254).

Most foreign language reading specialists view the reading process as interactive. The reader interacts with the text to create meaning as the reader's mental processes work together at different levels (Bernhardt, 1986; Carrell, Devine & Eskey, 1988; Rumelhart, 1977). So, the reading process is an interaction between a reader’s prior knowledge and the information encoded in the text, that is, an interactive process, where the reader is an active participant, who can contribute to the construction of meaning. When reading, students interpret the text based on their previous knowledge and simultaneously modify their original schema as new information is learned.
In this research study, the two processes were applied alongside each other in reading academic texts during the intervention, namely, the students used their previous knowledge in Psychology to understand the texts, but sometimes they asked about specific words or phrases they found and did not understand.

2.2.3 What is Reading Comprehension?

According to Klingner (as cited in Reutzel et al., 2013), reading comprehension is “the process of constructing meaning by coordinating a number of complex processes that include word reading, word and world knowledge, and fluency” (p. 11). In other words, reading comprehension is the ability to interpret words, understand the meaning and relationships between ideas carried in a text. He describes reading comprehension instruction for the teacher as the following three-step procedure: mentioning, practicing, and assessing. First, teachers mention the skills that they want the students to use, then they give them opportunities to practice those skills through workbooks or handouts, and finally, they assess whether or not they use the skill effectively (Reutzel et al., 2013).

The same authors refer to Alderson, who defines reading as “an enjoyable, intense, private activity from which the readers get much pleasure” (Reutzel et al., 2013, p. 11).

Snow (2002) defines reading comprehension as an ability to understand. Therefore, the goal of a reader is to try to understand what the reading is about. Reading comprehension focuses on three main elements: the reader who comprehends a text, the text that is going to be read and comprehended, and the activity in which comprehension takes place. Reader, text, and activity are connected with each other in dynamic ways.

Reading comprehension is a flexible and ongoing cognitive and constructive process. It is asserted that there are both conceptually driven (top-down) and data-driven processes (bottom-up) that contribute to the construction of a situation (mental) model of text ideas. It is a two-way process, which integrates information from the text-
based model with information from prior knowledge using inferential processing.

(Woolley, 2011, p. 15)

He goes on to say that “Reading comprehension inherently involves a negotiation between the reader and the text. This negotiation involves top-down and bottom-up processes that consider a whole range of reader and text attributes” (Woolley, 2011, p. 15).

Based on the definitions above, it can be said that reading comprehension is the ability to find out the writer’s explicit or implicit ideas. The essence of reading comprehension is to understand the information provided by the writer.

Reading comprehension cannot be divided into language and content because when people read, they need language to have access to content. In Yazar’s opinion (2013):

The focus of interest in the reading is neither language nor content, but the two together; we want our students to learn how language is used for conveying content.

We want them to develop the skills they need in order to become effective independent readers. (p. 43)

It is important to remember that students need to learn to read in English as part of their language learning, and that the final purpose of learning English is because, as professionals, they will need English for their personal and professional development. In fact,

A 2012 study from the scientific-research publication Research Trends examined articles collected by SCOPUS, the world’s largest database for peer-reviewed journals. To qualify for inclusion in SCOPUS, a journal published in a language other than English must at the very least include English abstracts; of the more than 21,000 articles from 239 countries currently in the database, the study found that eighty percent were written entirely in English. (Huttner-Koros, 2015, p. 1)
In addition, some authors describe other purposes for reading as well. Rivers and Temperly (as cited in Nunan, 1999) suggest seven main purposes for reading:

1) to obtain information for some purpose or because we are curious about some topic; 2) to obtain instruction on how to perform some task for our work or daily life; 3) to act in a play, play a game, do a puzzle; 4) to keep in touch with friends by correspondence or to understand business letters; 5) to know when or where something will take place or what is available; 6) to know what is happening or has happened; 7) for enjoyment or excitement. (p. 251)

In the academic field, students need to read to obtain information about the topics that are part of the subjects they are studying. Grabe and Stoller (2002) provide a different list as to the purposes of reading:

1) reading to search for simple information; 2) reading to skim quickly; 3) reading to learn from texts; 4) reading to integrate information; 5) reading to write (search information needed for writing); 6) reading to comment on texts; 7) reading for general comprehension. (p. 13)

Therefore, in the educational context, teaching reading is one of the first steps in the teaching-learning process. Reading for pleasure will be a more intimate kind of activity than reading for detailed comprehension. For detailed information, students should be completely concentrated on what they are reading, and the role of the teacher should be to make them realize the importance of reading.

Reading involves comprehension, understanding, interpretation, and thinking (Sagirli, 2016). It helps students to develop knowledge; however, writing is just as important as reading. When a written message is understood, it has the power to take the mind to different places, times, and events. It can hold the readers’ attention through suspense and intrigue (Clarke, Truelove, Hulme, & Snowling, 2013).
In addition, readers such as students, professionals or ordinary people have to consider that reading is an important step to personal development and social life because it allows them to learn about different subjects, people, history, and technology. Reading is necessary because it increases general knowledge. For example, students who read regularly, can learn more than only the topics that teachers impart inside classrooms. Reading is the road for self-education.

In the educational environment, teachers promote reading; but what happens when students do not like to read? What should teachers do? A possible answer would be to ask students when they feel motivated and when they feel bored by reading. Their responses or reasons can be analyzed to find the best motivation for them (Clark & Rumbold, 2006).

One of the strongest motivations to encourage reading should be the individual’s personal goals, and teachers must let students know about the benefits of reading. Teachers play an important role in students’ motivation and encouragement. It means teachers should motivate students with both intrinsic and extrinsic means.

Clark and Rumbold (2006) suggest that intrinsic motivation refers to engagement in an activity in which students are driven by internal rewards; for example, reading for curiosity, enjoyment or satisfaction. The teaching-learning process should be challenging to students, generating curiosity, and making it valuable for them. In the learning process when reading becomes an obligation, the motivation changes from intrinsic to extrinsic motivation. Extrinsic motivation involves the engagement in an activity as a response to external values and demands. Students read because they are interested in attaining certain outcomes like recognition, grades or competition.

According to Lepper and Henderlong (as cited in Clark & Rumbold, 2006), there is evidence that learners are motivated to read by both intrinsic and extrinsic aspects. For
example, a student could display intrinsically as well as extrinsically motivated reading behavior in order to fulfill their own reading interests and to fulfill school demands.

In conclusion, reading is an important tool if we want to be successful learners. It helps to develop knowledge. It helps to be involved in social life, because reading lets readers have a wide variety of knowledge. Teachers who want to help learners to become successful readers should take into consideration the best reading strategies and explain to them the positive results that this skill provides. It means encouraging students to be involved in the reading world.

2.2.4 How to Teach Reading and Reading Comprehension to EFL Students

English as a Second Language (ESL) and English as a Foreign Language (EFL) attempt to develop the four language skills: reading, listening, writing and speaking. However, both in the academic field and in higher education, reading is the most crucial skill to master for students due to the following reasons.

First, students can usually perform at a higher level in reading than in any other skills. They can quite accurately understand written materials that they could not discuss orally or in writing with equivalent accuracy or thoroughness. Such condition will undoubtedly enhance their motivation to learn. Second, reading necessitates very minimum requirements. Third, reading is a service skill. After learning how to read effectively, students will be able to learn effectively by reading. (Pardede, 2010, p. 1)

For many students, reading is by the far the most important of the four skills in a second language, particularly in English as a second or foreign language. Certainly, if we consider the study of English as a foreign language around the world, the most widely used skill that English learners need is reading, so this is the main reason why students learn the language (Carrell, Devine, & Eskey, 1988).
Since the 1960s a number of authors have carried out research in this field. Nunan (1999) considers reading as a passive skill, which involves the processing of written language. In contrast, Carrel et al. (1988) affirm that reading is an active and interactive process recognized by many other authors like Goodman 1967,1971; Kolers, 1969; Smith, 196; Rumelhart, 1967; Adams and Collins, 1979.

English teachers are usually concerned about how to teach English effectively; therefore, it is paramount to analyze some points that are essential in the process of teaching and learning a foreign language focusing on the reading skill.

To teach a foreign language, teachers should use four skills: speaking, listening, reading and writing. Of the four, reading plays the most important role in different levels of EFL students, such as elementary, intermediate, and advanced. To learn a foreign language completely is dependent on developing reading ability. (Yazar, 2013, p. 36)

When English is not the mother tongue, learners tend to face some difficulties that teachers have to solve in the process of teaching and learning a foreign language. One of the main problems is the lack of lexical knowledge; therefore, teaching reading is one of the most useful skills because students can acquire new vocabulary. “Reading texts also provide good models for English writing” (Harmer, 1998, p. 68). It also allows students to realize how to use the language correctly. It is the use of correct grammar, punctuation, sentences and paragraph construction; all of these improve through reading.

Teachers have to be aware of what kind of readings their students need. It must be according to the students’ capabilities and interests. For example, if the class level is “beginners,” it will need to be basic structures adapted to their level. It means elemental vocabulary so that students do not get frustrated at the beginning of their studies. Also, it depends on who the students are. For example, if they are all business people, they have to
concentrate on business texts. If they are science students, they have to be involved with reading scientific texts (Harmer, 1998).

On the other hand, Harmer (1998) proposes another issue to be considered: What principles are behind teaching reading? To answer this question, it is necessary to observe some principles.

“Principle 1: Reading is not a passive skill” (Harmer, 1998, p. 70). It is an active occupation. It is necessary to understand what the words mean, and understand the arguments. When students learn in this way, they are not going to forget easily what the reading was about because they were actively involved in the reading.

“Principle 2: Students need to be engaged with what they are reading” (Harmer, 1998, p. 70). If students are interested in what they are reading about, they will benefit from it.

“Principle 3: Students should be encouraged to respond to the content of a reading text, not just to the language” (Harmer, 1998, p. 70). It is important to take into consideration the students’ feelings about the reading. What they think about it and what opinions they may have about the topic.

“Principle 4: Prediction is a major factor in reading” (Harmer, 1998, p. 70). After reading the title, the teacher could ask the students what the reading could be about in order to bring the students’ attention to the topic. A brainstorm about what the reading is going to be about could be done. As a result of this activity, students get involved with the topic.

“Principle 5: Match the task to the topic” (Harmer, 1998, p. 70). This implies planning challenging tasks and questions to be answered about the text.

“Principle 6: Good teachers exploit reading texts to the full” (Harmer, 1998, p. 71). This means that teachers have to find a good way to integrate the reading into an interesting class sequence, making students discuss the topic and working on tasks and engaging students as fully as possible.
Teachers have to consider these principles when planning a reading lesson. In the Ecuadorian context, it is not very common that students enjoy reading; therefore, the challenge for teachers is to engage their students in the reading world through readings that fulfill their personal or academic interests.

English teachers have to take into consideration three important phases in a reading lesson plan:

**Pre-reading:** “What the pre-reading phase tries to do is: to introduce and arouse interest in the topic, to motivate learners by giving a reason for reading, and to provide some language preparation for the text” (Yazar, 2013, p. 40). “Pre-reading” activities introduce students to a particular text, elicit or provide appropriate background knowledge, and activate appropriate schemes. The pre-reading phase helps students define the selection criteria for the central theme of a story or the major argument of an essay.

**While-Reading:** “The aims of this phase are: to help to understand the writer’s purpose, to help to understand the text structure, to clarify text content” (Yazar, 2013, p. 41). While reading, learners are asked to answer and make questions, to take notes, to make lists, and to highlight main ideas. “While-reading” exercises help students develop reading strategies, improve their control of the second language, and decode problematic text passages.

**Post-Reading:** “The aims of post-reading work are: to consolidate or reflect upon what has been read, and to relate the text to the learners’ own knowledge, interests, or views” (Yazar, 2013, p. 42). Post-reading activities can include some reactions to the text and to the while-reading activities. For example, learners could say if they liked it and if they found it useful or not. "Post-reading" exercises first check students' comprehension and then lead students to a deeper analysis of the text, when necessary.

In this study, reading was considered an interactive process during which the students read texts, analyzed articles, solved problems, wrote summaries, and discussed Psychology topics.
It can be said that the ESP-related reading activities also helped students practice other skills through these types of academic texts.

### 2.2.5 Reading Strategies

Reading is an important skill to be developed in English teaching in many social science subjects. For example, Milosavljevic (2012) argues that students often read literature to obtain information regarding some particular topics, or read instructions to complete a certain task. In reading classes, selecting texts is very important because the teacher should be careful that the students are able to understand the text content; consequently, a very important fact in teaching reading effectively is helping the individual reader to identify effective reading strategies based on text variables. There is a wide variety of reading strategies. This study emphasizes how to apply a range of these strategies so that both teachers and learners can consider them in their process of teaching and learning a foreign language.

**Select reading material.** It is important to choose texts according to the students’ level and interest (Duke & Pearson, 2001).

**Brainstorm before reading.** Readers can make “a list of what they already know about the topic” and “what they want to know about the topic” (Huegli & Quebec Literacy Working Group, 2008).

**Make use of prior knowledge / Predicting.** Readers should activate their prior knowledge before starting reading (Huegli & Quebec Literacy Working Group, 2008).

**Predicting and pre-viewing.** It helps the reader to prepare for reading. First, the readers should look at the title, subtitles, and photos. Moreover, they can consider what they already know about the topic. As a result, they can make predictions about the text, and after reading they can confirm if their predictions were correct or not (Huegli & Quebec Literacy Working Group, 2008).
Skimming. “Looking quickly through the text to get a general idea of what it is about” (Nunan, 1999, p. 265).

Scanning. “Looking quickly through the text in order to locate specific information” (Nunan, 1999, p. 265).

Monitor comprehension. Readers have to identify what they do not understand and be conscious of what they are able to understand (Duke & Pearson, 2001).

Use mental imaginary/visualization. It helps learners to remember the reading. It also helps to understand what they have read. Moreover, it helps readers to organize information, and remember ideas. Additionally, if a reader draws the images, he/she will remember what he/she read in a better way because it will be more difficult to forget it (Duke & Pearson, 2001).

Visual representation of text. It is a useful tool, in which readers can help themselves with a wide variety of graphic organizers. They can organize their ideas, opinions, and the information that they got from the text that they have read. Graphic organizers help readers to understand and use text structure to support both reading comprehension and writing (Duke & Pearson, 2001).

Read aloud while reading. It helps readers to hear how words sound. Also, it helps to predict the meaning of words (Huegli & Quebec Literacy Working Group, 2008).

Use context clues while reading. Readers can guess the meaning of a word in the context.

Highlighting and reviewing. It is important to highlight the main ideas and difficult words. Additionally, readers can take notes as this helps them to have a better understanding of what they have read (Huegli & Quebec Literacy Working Group, 2008).

Summarizing / Retelling. For this to happen, readers will select the most relevant information taken from the texts and explain it in their own words. The goal of this strategy is to demonstrate what readers have understood. It helps critical thinking and oral language
development. “Research indicates that retellings improve memory and recall, develop language structure, develop language fluency, and increase the sense of story structure” (Duke & Pearson, 2001, p. 463). One of the creative ways of retelling is “using picture mapping, in which the story is retold entirely in pictures” (Duke & Pearson, 2001, p. 466).

*Generating and answering questions.* Readers should ask their own questions among themselves about what they are reading to assess their comprehension. It helps readers to think actively. “Readers ask questions of themselves and others in order to clarify meaning, speculate about what might happen in the text, locate a specific answer in the text, and connect to other texts and ideas” (Duke & Pearson, 2001, p. 473).

*Talk about the text.* This is a very useful strategy because the readers share what they have understood. They start to discuss the text. Additionally, it helps readers who did not understand well. It helps to clarify doubts (Duke & Pearson, 2001).

*Reading as often as possible.* This helps to connect ideas that readers already know. In addition, it improves their reading skills. “The more reading, the easier it will get” (Huegli & Quebec Literacy Working Group, 2008, p. 3). For example, try to read advertisements, newspapers, magazines, books, emails and more.

In the present study, most of these reading strategies have been applied in class in order to help students to improve the level of their reading comprehension. Even though at the beginning it was difficult for students to read academic texts about Psychology in English, by the end of the semester they were able to apply some strategies and strengthen their reading habits.
2.3 Content-Based Instruction (CBI) + English for Specific Purposes (ESP)

2.3.1 Content-Based Instruction (CBI)

Content-Based Instruction (CBI) originated in Canada in the 1960s when teachers used French to teach subjects like mathematics, physics, history and others. The aim of this method was to abandon past learning language methods and learn a second language through subjects (Jiaying, 2015). At the beginning, it appeared as “the immersion education” in the elementary and junior schools to practice the second language. In the 1980s, it was introduced in colleges for ESL and EFL teaching (Tian & Wen-Wen, 2016).

CBI has its theoretical foundation in Krashen’s comprehensible input hypothesis. It focuses on meaningful input. CBI focuses on the meaning rather than on the form. Krashen (as cited in Tian & Wen-Wen, 2016) states “When the learning environment in second language is similar to that in first language learning, second language acquisition will be most successfully achieved” (p. 2).

“CBI refers to an approach to second language teaching in which teaching is organized around the content or information that students will acquire, rather than around a linguistic or other type of syllabus” (Richards & Rodgers, 2008, p. 204). In other words, CBI is a teaching approach that combines the language teaching with the content teaching and has a beneficial effect on promoting learning efficiency.

According to Richard and Rodgers (2008), CBI is based on two central principles:

1. *People learn a second language more successfully when they use the language as a means of acquiring information, rather than as an end itself.* (Richards & Rodgers, 2008, p. 207). It is important for students to recognize a second language, English in this case, as a tool for their profession, rather than an isolated requirement.
2. Content-Based Instruction better reflects learners’ needs for learning a second language (Richards & Rodgers, 2008, p. 207). This principle reflects the fact that many content-based programs serve to prepare students for academic studies or for mainstreaming.

From these principles, it can be deduced that in the CBI method, students learn a second or foreign language through meaningful and contextualized material: the main purpose is learning about the content and acquiring the language at the same time.

According to Jiaying (2015), the CBI teaching philosophy has three core elements:

First, teaching should be subject to the core of knowledge, language is only media; second, language materials must be true and reliable, must be derived from English newspapers, books, audio and video, film, etc., cannot be written by the teachers themselves; third, curriculum content must meet the needs of students. Different students are not interested in the topic of the same. The curriculum must be in line with the students' interest, emotion, attitude and other conditions. (p. 281)

Consequently, based on the above-mentioned concepts and perceptions, teachers should consider authentic content as the core of learning and combine it with language teaching to develop students’ linguistic knowledge and skills in the process of understanding specified content. Besides, they should see language as a tool of learning, giving priority to professional knowledge through comprehensible input and language acquisition (Tian & Wen-Wen, 2016).

2.3.1.1 The Role of Content in other Curriculum Designs

In the 1960s and 1970s, other curriculum designs and approaches have emerged from CBI. According to Richards and Rodgers (2008), these are: Language across the Curriculum, Immersion Education, Immigrant On-Arrival Programs, Programs for Students with Limited English Proficiency, and Language for Specific Purposes (LSP). From LSP, there have arisen subfields like English for Specific Purposes (ESP), English for Occupational Purposes (EOP),
and English for Academic Purposes (EAP). This study is based on ESP as the core approach to teach English, and focuses on the reading skill.

### 2.3.2 English for Specific Purposes (ESP)

After the Second World War, there was a scientific, technical, and economic activity expansion on an international scale. At that time, the United States obtained great economic power; many people wanted to learn English because this language was the strategic point in technology and commerce. English grew to be the common international language, and nowadays is known as Lingua Franca.

According to Hutchinson and Waters (1987), ESP has played an important role in English Language Teaching (ELT). In their book they state, “ESP is an approach to language learning based on learners’ needs” (Hutchinson & Waters, 1987, p. 19). ESP was an answer to learners’ expectations. At that time, people who did not know English did not have time to learn English as a second language. They needed English to read manuals, communicate with each other, and read specialist textbooks. Some English teachers were asked to teach them only the specific English they needed to cover their demands, since the traditional methodology of teaching General English would have taken too much time for the learners.

People who were interested in learning English needed it for their specific activities (Hutchinson & Waters, 1987). English language learners’ professional needs brought about the teaching approach called English for Specific Purposes. ESP has grown as a distinct discipline since the 1960s. At the beginning, the aim of ESP was to identify the specific English grammar and lexicon to be taught (Cerón, 1997).

During the late 1970s and early 1980s, the second phase of ESP began to develop, and the restricted view of language at a sentence level changed into discourse analysis, where cohesive devices and textual patterns were considered (Cerón, 1997). The target situation analysis was introduced by Hutchinson and Waters (1987) in the third phase of ESP.
development, where the language analysis of the first two phases was related to the language learner’s purpose for learning it. There was a fourth phase, which put aside the language forms and focused on the thinking processes which took place during language use (Hutchinson & Waters, 1987). The authors emphasize that since ESP is a learner-centered approach, the concern in ESP is not focused on accurate language use exclusively. They propose that in order to learn a language, people need to do more than study a grammar book and use a dictionary.

ESP has been evolving for decades now and authors in the field have expanded the theoretical background. As reported by Dudley-Evans and St. John (1998), ESP could be used in the academic field where, for example, medicine students need to use English for learning purposes like reading scientific articles, or in the professional field when doctors need to communicate with their patients. The authors state that there are several factors involved in an ESP class: for instance, needs analysis and the designing of activities that the learner has to perform in English. Over and above these two elements, certain language points are bound to emerge and will need to be dealt with.

Dudley-Evans and St. John, (1998) list both absolute and variable characteristics of ESP which are listed down below.

**Absolute Characteristics:** (1) “ESP is designed to meet specific needs of the learner” (Dudley-Evans & St John, 1998, p. 6). Needs analysis is a fundamental factor in ESP, where the learner’s needs are taken as the base to design a course. (2) “ESP makes use of the underlying methodology and activities of the disciplines it serves” (Dudley-Evans & St John, 1998, p. 6). That is, ESP for academic purposes should consider using the same methodology related to the learners’ major or profession to teach English. (3) “ESP is centered on the language appropriate to these activities in terms of grammar, lexis, register, study skills,
discourse, and genre” (Dudley-Evans & St John, 1998, p. 6). Basic language skills still need to be developed in an ESP course, since it is not only focused on content.

*Variable Characteristics*: (1) “ESP may be related to or designed for specific disciplines” (Dudley-Evans & St John, 1998, p. 6). English is a globally used, international language that can be used for different disciplines. (2) “ESP may use, in specific teaching situations, a different methodology from that of General English” (Dudley-Evans & St John, 1998, p. 6).

The main difference between General English and English for Specific Purposes is that the approach for ESP is more centered on language in context than on teaching grammar and language structures. An essential point of ESP is that English is not taught as a separate subject from the students’ real world or interests.

According to Dudley-Evans and St. John (1998), ESP has traditionally been divided into two main branches such as English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). In contrast, according to Richards and Rodgers (2008), ESP, EOP and EAP are subfields of Language for Specific Purposes (LSP).

EAP refers to any English teaching that is related to academic study needs according to the learners’ field of study. Nowadays, EAP is generally a specific program offered by foreign universities, which provides English language and academic skills needed by students who want to accomplish their admission to a college or university outside their home country; while EOP is a specific program offered to language learners who are already experts in their fields and need professional English communication skills as tools to do their work. It is employed in industry sectors, focusing on the language of job performance or preparing for identifying employment opportunity.

### 2.3.2.1 Learning Theories behind ESP

Over the years, different theories about language learning have been developed to answer the crucial question in language learning, “How students learn?”
According to Hutchinson and Waters (1987), at the beginning, the ESP teaching process was based on behaviorism just as general English, since students were asked to practice and follow patterns because this school of study looked on learning as a mechanical stimulus-response process; a process in which students were simple knowledge receptors.

Successively, Hutchinson and Waters, (1987) state that ESP instructors realized that imitation was not an effective method to learn English and came up with the cognitive theory. The methodology arising from this was to ensure that students learned topics based on what seemed to make sense to them according to their necessities. In this context, the cognitive theory changed the view of the learner from a passive actor to an active information processor. According to this theory, students learned when they arrived at a meaningful interpretation of the information they were exposed to. In ESP, learners have to develop activities related to their study field where the problem-solving task, a basic teaching technique, is used as part of the cognitive theory of language learning.

At the same time, it is important to remember that the affective factor is present in the learning process; as Hutchinson and Waters (1987) remark most students do not learn English because they want to. They study English because they need it, which can be considered a kind of “motivation”. The motivation to learn a second language, in this case English, could be internal, known as intrinsic motivation, or external, known as extrinsic motivation. “Intrinsic motivation is defined as the doing of an activity for its inherent satisfactions” (Ryan & Deci, 2000, p. 56). As humans, people can be interested in different activities. These activities are not necessarily the same for everybody because each person can find pleasure and expand their knowledge in different areas. The personal and social development is based on their motivation to learn and discover new things. Some students are interested in learning a second language because they find it interesting or different. This spontaneous or intrinsic motivation makes learning a second language easier for them.
On the other hand, they state that “Extrinsic motivation is a construct that pertains whenever an activity is done in order to attain some separable outcome” (Ryan & Deci, 2000, p. 60). In other words, as human beings, people do certain activities that are necessary for their own development. In language learning, for example, students can appreciate the importance of learning English because it will either help them in the future, or because it is a requirement in education. This motivation can be considered external or extrinsic because it is not spontaneous. However, extrinsic motivation is as important as intrinsic motivation for personal development. Some students and professionals have specific needs, or different reasons to learn English, and ESP can cover those needs.

Although authors as Hutchinson and Waters, or Dudley-Evans and St. John, do not mention constructivism as a learning theory as the base of ESP, nowadays we can find authors who take this educational paradigm as the base of the teaching/learning ESP process. For example, Tarnopolosky (2015) suggests that the constructivist theory can be adapted to foreign language teaching and learning, and in the ESP field, it is used for professional communication. In higher education, students “construct” their own knowledge and communication skills in order to develop their professional communication through accomplishing activities that encourage them to use the target language, English, as a professional tool. The constructivist theory was applied when teaching students majoring in Psychology in tertiary education in the Ukraine. They considered the seven fundamental constructivist characteristics defined by Jonassen (as cited in Tarnopolsky, 2015) in a learning environment, which are:

1. *Active*: the proposed information must be significant for students where the content is based on professional activities, which permits students to be involved and be responsible for their learning through mental information processing.
2. *Constructive*: students construct new knowledge starting from their previous knowledge.

3. *Cooperative*: learners work in groups in order to achieve the common goal, which is constructing the professional knowledge and developing professional skills.

4. *Intentional*: this means that there is a clear set of objectives to be attained. In this case, the purpose of the course was to develop the cognitive level needed by Ukrainian tertiary Psychology students who needed to use the knowledge gained through ESP in their future profession.

5. *Conversational*: learners are seen as part of the community where the dialogue is the essence of the social learning process.

6. *Contextual*: students are being prepared to develop as professionals in the real world. The task created in the learning environment is modeled according to the context in which students need to develop.

7. *Reflexive*: students are encouraged to articulate their learning and reflect about how it has helped to develop their cognition process.

Tarnopolosky (2015) explains that under these circumstances, they carried out some activities based on these constructivist characteristics. One of the tenets was “experiential and interactive language learning”. It is based on developing communication skills and language acquisition through practical activities which permit students to experiment real professional situations. These situations are generated through activities like role-plays, discussion, presentation, case studies, and projects; all of them in English and related to their professional field. Experiential learning involves characteristics such as active, constructive, conversational, and reflexive. Also, students are continuously interacting with the teacher, other students, and the real professional world by analyzing real materials. The process
includes group work, creating the conditions for cooperative learning, another constructivist characteristic.

In order to achieve experiential and interactive learning, “content-based instruction” is used in ESP courses; the content related to their profession is in English and it is with the help of this content that they read, listen, write, or speak. Consequently, what we see is the integration of language for professional communication with the content of their professional field. The content-based approach employed in the implementation ensures intentional, contextual and reflexive learning.

Since material writers rely on specialized materials, it is impossible to have the same content for each ESP course. This is because all the publications and authentic professional materials are written by experts in the field. Tarnopolsky (2015) says that the material the courses are based on are changing all the time, and that is why “the blended learning approach” was also used in their study, where the students were requested to look for material on the internet with their teacher as a guide. In this case, the learning process is not occurring only in the class, but it is also taking place outside of it when the learners are reading and searching for the required information. In this way, students are involved in an autonomous, creative, experiential, and interactive learning process, which is in line with the constructivist paradigm.

2.3.2.2 Needs Analysis

Needs Analysis (NA) is one of the main characteristics of ESP. In the words of Dudley Evans and St. John (1998), NA means “what learners need to do with English” (p.5). All students have needs, but the difference between a General English course and an ESP course “is not the existence of a need as such, but rather an awareness of the need” (Hutchinson & Waters, 1987, p. 53). This awareness will influence the content of the language course. Both teachers and students should be aware of their needs in order to cover their goals,
expectations and necessities. The NA process should be done before the course or at the beginning in order to plan the course and the lessons according to the specific needs of the groups.

Robinson (as cited in Rahman, 2015) emphasizes that ESP is normally goal-directed and that ESP courses are developed after due needs analysis. Its aim is to find as closely as possible what exactly students need to do through English. Saliu (2013) concludes that ESP not only includes English teaching through specific material and content; it combines the linguistic skills development with specific information acquisition.

2.3.2.3 Authentic Materials in ESP

Authenticity of material is a relevant aspect in ESP methodology, since it replicates an immersion atmosphere and provides a realistic context for tasks that relate to the learner’s needs.

“Realia and authentic material increase learners’ motivation and expose them to real language and culture as well as to the different genres of the professional community to which they aspire. Authentic material must be constantly updated, as they are more and more frequently on demand in ESP or EAP classes”. (Torregrosa & Sánchez-Reyes, 2011, p. 90)

ESP focuses on learners’ needs and interests according to their field of study. For this reason, the material chosen and provided to the students is essential in any ESP class. ESP attempts to teach language through content using authentic material. This means that an ESP course should not use texts created for a General English class. The ESP material includes articles, newspapers, journals, magazines, audios, and videos where the authentic English language of the learners’ field of study, such as Medicine, Psychology, Law, and Engineering is presented to students. Torregrosa and Sanchez Reyes (2011) state that “authentic materials
are important tools for using in ESP classes, they motivate and immerse learners in specific areas of the target language in which practice is needed” (p.93).

In other words, taking into account the students’ interests and needs, teachers should concentrate on the content and provide plentiful authentic linguistic material to help students to improve their English proficiency.

All the students from the convenience group who participated in the present study were from School of Psychology, so scientific English articles related to the Psychology field were used to apply this approach during the intervention.

### 2.3.2.4 ESP Methodology

Several authors have pointed out that ESP methodology has its specific features.

In the ESP classroom the teacher may not have the knowledge of the content, but learners have. For instance, an ESP teacher may not know how exactly a business runs, but they know what language and how it is used in it. (Chalikandy, 2013, p. 315)

ESP makes use of the methodology of other content subjects. This is the strength of ESP methodology, namely, it integrates language learning approaches and subject learning approaches. “Content Based Instruction and Task Based Instruction are very useful in ESP classrooms. ESP teachers make use of learners’ specific subject knowledge, which makes classroom interaction and methods different from General English”(Chalikandy, 2013, p. 318).

In an ESP course, teachers should follow some steps when designing a course. First, they have to carry out the “Needs Analysis” of the learners. This implies identifying what kind of English students need. Second, they need to select the content that is going to be covered during the course. When selecting the content, it is important to take into consideration the subject matter that the learners are studying. Third, tasks and activities should be planned
according to the chosen material, depending on the topic the teacher has developed; for instance, reading comprehension, listening, writing or speaking activities. Furthermore, it is necessary to plan activities related to vocabulary. Finally, the evaluation process, as with any other course, needs to assess students on the language learning process (Tarnopolsky, 2015).

As for syllabus design for an ESP course, Dincay (2011) suggests that we should follow the diagram below.

![ESP Language Teaching Syllabus Design](image)

Figure 1: ESP Language Teaching Syllabus Design. From “Designing a Learner Centered ESP” by Bell, 1981.

### 2.3.2.5 Reading Lesson Plan for ESP

What follows next is the presentation of how the lesson plans for this research study were designed. The purpose of the lesson plans was to obtain evidence on how students developed their reading comprehension through the implementation of an ESP course.

According to Bautista Barón (2013), ESP lesson plans need to focus on:

1) helping students to identify vocabulary and expressions related to relevant topics with the use of their prior knowledge; 2) promoting the students' interest in the learning content and the English language; 3) training students in the use of learning strategies for the carrying out of different activities; 4) fostering the students' reading
comprehension of the selected texts; 5) helping students in the recognition of vocabulary and expressions in context; 6) creating and adapting activities to encourage students to use learning strategies as a routine to become more independent; 7) making the students aware of the usefulness of English in their academic success, and 8) teaching students to do an ongoing self-evaluation of their own learning process. (p. 143)

In addition, she lays out the main steps of a reading comprehension lesson plan in ESP:

Preparation (Warm up): Students prepare for strategy instruction by identifying their prior knowledge and the use of specific strategies. The teacher demonstrates the new learning strategy and explains how and when to use it.

Practice (Before Reading): Students practice using the strategy with activities of moderate difficulty.

Evaluation (While Reading): Students self-evaluate their use of the learning strategy, and how well the strategy is working for them.

Expansion (After Reading): Students extend the usefulness of the learning strategy by applying it to new situations or learning tasks (Bautista Barón, 2013, p. 143).

In the context of the present study, the procedure was as follows: the teacher starts by introducing the Psychology topic so that the students can define the concepts about it (Warming up). Then, they identify Psychology vocabulary; they use these new words in context through guessing, scrambling, matching, and completion activities (Before reading). With this type of activities students are prepared for the reading process and are also introduced to the recognition of learning strategies. After that, they read short Psychology cases in individually or in groups (While-reading) and the teacher revises the reading comprehension exercises with the whole class (After-reading). Then, students reflect on their experience of strategy use. In the last part of the class, there is a self-evaluation that the
teacher explains to students; in it, each student reflects on learning attitudes, content learning, development of reading comprehension skills and learning strategy awareness (Appendix E).

To conclude, it has been found that most linguists believe that the demand for English language learning around the world is increasing, because nowadays it is the language of globalization, international business, technology and science. In this context, ESP has emerged as a significant approach that grows ever more widely, since it is concerned with the learners’ needs for a specific field of their academic studies or profession; namely, they learn what they need, when they need it, in an authentic and content-based context.
Chapter III

Literature review

This chapter describes several studies on how ESP can be applied in ESL and EFL classes as well as discusses and analyzes the major findings related to reading comprehension in an ESP setting with special regard to the research accomplished for the purposes of this study.

To start with, a study was done by Bautista Barón, (2013) at the police training institute in Bogotá accredited by the Ministry of National Defense called “Escuela de Investigación Criminal de la Policía”. The goal of this study was to improve the police officers’ performance in English through ESP, since in the previous years this language has turned into an important means of communication for them. A qualitative method was used to explore and reflect upon the teaching-learning processes during the research. The reading comprehension workshops were based on the cognitive language learning approach not only to improve students’ reading skills but also to enhance their autonomy through the use of learning strategies. During the course, they were required to solve problems working on different situations and materials in English. They were exposed to technical vocabulary related to criminalistics. The studied group was composed of 16 male students from 24 to 36 years old. They were students from the “Technical Professional in Explosives” undergraduate program. The subject matter was divided into Basic English and ESP. One of the instruments for data collection was a multiple choice questionnaire to determine the students’ previous English learning experience and performance, opinions, preferences about the learning process and activities, autonomous tasks, and suggestions to achieve the ESP objective of the class. Most students reflected about how they had to read material in English, which was a vital element for their professional development. The author says that “Based on the data
collected, I concluded that the students understood the importance of ESP in their professional performance, praising the creation of Criminalistics-based reading workshops underpinned by Cognitive Academic Language Learning Approach (CALLA) principles” (Bautista Barón, 2013, p. 151). She also adds that the students enhanced their reading comprehension by being responsible for their own learning through strategies like self-evaluation, selecting and applying learning strategies by themselves, and having a positive attitude towards it. The students were able to identify their difficulties and achievements, which resulted in a significant advancement in communication and self-sufficiency.

Similarly, the present study worked with reading comprehension strategies in order to enhance the reading comprehension level of Psychology students. It also employed a qualitative method to explore the students’ opinions and perceptions about the English class. In the same way, students showed a better attitude towards English at the end of the semester.

In the study titled “Reading Social Science Research Articles in English: Understanding Obstacles for Spanish-speaking Undergraduate Students” it was found that it is important for teachers to take into consideration that reading comprehension could depend on the reading skills acquired by the learner in his/her L1. This study was carried out by Pampillo (2013) at the Universidad de Buenos Aires with participants from third level English, who were students from various majors such as Communication Science, Industrial Relations, Political Science, Sociology, and Social Work. A sample of 37 from among 140 students participated in the research study. Their level of English ranged from elementary to upper intermediate. Most of them (n=28) had an elementary level of English, and the rest (n=9) ranged from pre-intermediate to intermediate. The main objective was to teach students to read academic texts in English, but their comprehension skills were assessed in their first language (L1). The students’ performance was measured by midterm tests and the grades were used as part of the data collection process and the analysis. It was found that L1 literacy and L2 knowledge
seemed to explain 50% of reading performance in L2. The author concludes that students have difficulties with reading L2 academic texts, even after long periods of instruction (Pampillo, 2013).

Somewhat similar results emerged from the present research project: at the beginning of the intervention, it was very difficult for students to read academic text in English. They tried to translate word by word and not to get the general idea of the reading. In contrast, at the end of the semester, the students were able to read and understand academic texts related to Psychology.

There have not been many research studies conducted in the area of English for Medical Purposes (EMP). According to Milosavljevic (2012), ESP can be divided into more specific branches; one of these branches is known as English for Medical Purposes, which focuses on medical students’ needs as future professionals. They need to develop some basic communication skills like doctor-patient communication, note taking, and writing patients’ history. The author describes that the EMP teaching process has some aims according to the students’ needs such as a dynamic knowledge of exchanges between international colleagues, reading, writing, and the publishing of scientific articles along participation in professional conferences inside and outside the country.

Nowadays, there are many foreign people, especially from the United States, living in Cuenca. For this reason, it is important to train students of Psychology so that they can acquire new vocabulary related to their field, namely, not only to read and understand academic texts, but also to communicate with foreign patients who may need psychological attention.

Similarly, ESP has been used in the field of law. For example, Arias (2014) published the article “Reading through ESP in an Undergraduate Law Program”. The research was done at the Universidad Santo Tomás Tunja (USTA), Colombia. This study focused on reading, and
that is why the author emphasizes that “Reading is relevant because it provides learners with
the vocabulary and the knowledge that will be used in their professions” (Arias, 2014, p.
108). The study was done through a qualitative descriptive case study. At USTA, students
have to take five levels of English in order to graduate. The studied population consisted of
62 students of law, 35 females and 27 males aged between 20 and 24, who were attending the
fifth level of English. They were informed about the application and a written permission was
signed. In the data collection phase, the researcher chose semi-structured interviews,
students’ oral and written samples, and the researchers’ journals as instruments for data
analysis. A questionnaire with semi-structured interviews was given to students to collect
information about their behaviors, attitudes, and beliefs. Some questions were not prepared
before the interview because they depended on the students’ answers. It also helped the
participants to understand their perspectives and experiences. Another instrument was
students’ oral and written samples, which were products about the work performed in class
during the reading sessions. The third instrument used was the teachers’ journals, in which all
the students’ activities and their skills for making decisions and solving problems about the
law were registered.

The intervention was done by working with reading texts specifically about law. The
specialized texts were presented by applying the three reading process phases: pre-reading,
while-reading, and post-reading activities; the students were asked to discuss and analyze
different topics such as divorce, human rights, the consumption and legalization of drugs, as
well as crime and the justice system in American society. As a result, two categories arose:
Acquisition of Specialized Knowledge about Law and the Capacity to Discuss It, and
Acquisition of Specialized Vocabulary (Arias, 2014). The results showed that students were
very interested and motivated to read English texts about law and the American laws
specifically, because it permitted them to increase their knowledge and compare the
Colombian and American Constitutions. According to Arias (2014), students were able to discuss law topics after reading texts about American law. She also indicates that students increased their self-confidence and were motivated to acquire new information about other countries while enriching their law perspective around the world. In conclusion, the author states that the methodology used helped students to carry out reading activities as autonomous learners. Equally, students felt more self-confident and motivated after having acquired some of the specialized vocabulary, which helped them to improve their own learning process and their use of the English language. An important factor that contributed to the successful accomplishment of the study was that the readings about law were taken from specialized English-language books, magazines, and the Internet. The topics and the texts were interesting to the students; and this fact was the primary strength of the project. The research study was successful because the students were completely engaged in the reading process.

For the present research, students’ journals and interviews were used to collect qualitative data about students’ perceptions. As in the case of Arias’ work, the students were motivated to read articles related to their field of study. In addition, the previous knowledge they had in Psychology, helped them to understand the academic texts in English. The material chosen for the intervention was taken from the Internet according to their interests. Some of the students enjoyed reading about Psychology in English because they realized that English was a tool to continue learning about their major.

Another example of the ESP application is the study titled “Teaching English for Specific Purposes: Attitudes among Saudi Engineering Students” done by Alqahtani in 2015 in Saudi Arabia. The aim of this study was to carry out an analysis related to the attitudes of Saudi Engineering Students about learning English as a second language. The research methodology used qualitative and quantitative tools to gather information. The tools used to
collect data were questionnaires and interviews; they included open-ended questions to encourage students to formulate their own ideas on what it takes to learn a language. The 36 items explored beliefs and learning strategies. The population of the study was composed of engineering students from three cohorts. A survey was administered to 377 students and their responses illustrated the changes in attitude to English in general as a result of instruction through English for Specific Purposes. Students did not have a positive attitude towards English at the beginning of the survey, where the questions were about the general use of English; but in the second part of the survey, where ESP strategies were discussed, the Engineering students’ attitude changed into a positive one. Simultaneously, interviews were also conducted with 16 students in order to find out their views related to learning English. They suggested that an improvement in the quality of English Programs at the university, especially at the Engineering School, would be important because universities should use information technology for attracting and enhancing English language learning. In the discussion section, Alqahtani (2015) emphasizes that texts used within a specific course should be related to the learners’ areas of specialization. He remarks that students, especially at the Saudi Engineering University, were interested in learning ESP because some students needed this kind of English for their studies; for example, English for Science, Technology, and Engineering. They also needed English for occupational purposes, since English was needed as part of their work. All in all, the above academic and technical considerations created an important relationship between the relevance of English for Specific Purpose and the positive attitudes of Saudi students.

Currently, there are no ESP courses at the Engineering Universities in Saudi Arabia. English is taught in a conventional way; for this reason, many students still have a negative attitude towards learning English. “It has been emphasized that students’ needs and interests are related to their backgrounds, experiences, and their ability to learn and enhance their self-
confidence. So, that it leads towards positive attitudes for learning English proficiency” (Alqahtani, 2015, p. 93). In conclusion, the study confirmed the initial hypothesis that Engineering students’ attitudes towards learning English can change when they realize that it is necessary for their major and profession.

Likewise, in the present study quantitative and qualitative data were used. The purpose of obtaining qualitative data was to gauge students’ perceptions about ESP focusing on reading. Meanwhile, the purpose of gathering quantitative data was to measure the students’ academic performance in reading.

The planning of ESP courses necessarily starts with a detailed Needs Analysis (NA). A relevant study was done by Boroujeni and Fard (2013), titled “Needs Analysis of English for Specific Purposes (ESP) Course For Adoption Of Communicative Language Teaching: (A Case of Iranian First-Year Students of Educational Administration).” In their case, the objective of the NA was to establish how students would react to changes in their experience of language learning. The proposed changes aimed at introducing a modern approach, namely, Communicative Language Teaching (CLT), as an alternative to the traditional approach applied in their context. The participants of the study were 90 first-year students of different universities, aged between 19-20, and 30 teachers who were also invited to participate in the study. One questionnaire for students and another for the teachers, adapted from Ali Khan (2007), were used to collect the data.

The students’ questionnaire was arranged in a multi-option question pattern where students’ attitudes and beliefs were assessed by a limited number of scaled questions. The students’ questionnaire had choices ranging from elements of the traditional approach to the elements of the modern approach in order to explore the students’ preferences for them. It was found that most of the students contended that their reason for studying English was higher education. More than two-thirds (68.15 %) of the students answered that they used
English for academic purposes. A similar ratio (64.72 %) opposed the idea of removing English from the school curriculum even if it was not fulfilling their needs. It was also found that 63.89% of the students wanted to develop their speaking skills.

The teachers’ questionnaire had only scaled questions and was aimed at investigating the attitudes, perceptions, and beliefs of the teachers about the elements of the modern approach and the prevailing traditional approach, and also to confirm ownership and acceptance of CLT. The teachers’ responses showed that the majority were in favor of the Communicative approach. It could be assumed that if CLT was implemented in universities, these teachers would work for the successful initiation and implementation of this innovative approach.

The authors concluded that students attached great importance to the study of English; at the same time, they believed that the traditional approach and the course material was not contributing to their English improvement (Boroujeni & Fard, 2013).

Coming back to the issue of Needs Analysis, the suggestions contained in Poghosyan (2016) bibliographic overview are worth considering in some detail. She stresses that finding out what students need according to their job or vocation is vital in an ESP class. According to her article, the stages in the NA process are as follows: the first step is to establish the class situation and environment. She explains that when a teacher is going to be in charge of an ESP course, it is important to explore some essential aspects about the students’ specialization in order to find out about their needs and interests. The next step is to design a worksheet with some questions about their specialization to allow the students to be involved in their needs analysis. The author suggests asking students to rate their answers from 1 to 5 according to their interest, 5 as the most important and 1 as the least important activity that they would like to cover. The worksheet which, by way of example, applies to Business English, can include the following questions: 1. Which Business English topics would you
like to study: business news, market trends, management, marketing? 2. Which of the following functions do you need to practice in English: telephone English, meetings, introductions, small talk, welcoming a visitor, negotiations, presentations, interviewing, making decisions? 3. Which Business English skills would you like to improve: speaking (public speaking, describing things when you do not know the exact word), writing (reports, taking notes on talks, memos, messages, emails, business letters); listening (to radio, TV, and internet broadcasts), reading (reports, correspondence, articles, journals, abstracts and trade publications? (Poghosyan, 2016). Furthermore, the ESP teacher needs to identify the functional language that students need according to their field or specialization. After that, the teacher could include all the above in the syllabus and course plan.

Another phase in NA is to identify the reading materials according to their field of application, for example, magazines, phonebooks, websites, forms, and timetables creating a bank of authentic materials. The ESP teacher needs to find specific materials that the students will need in order to read for general understanding, for a detailed understanding of everything in the text, for a specific piece of information, and for pleasure. To carry out this analysis, students should answer a true – false questionnaire which should include “I need to read” statements. At the end, the authentic material bank for reading will help students develop their reading skills in real situations according to their field of study. The final step in NA is to identify the target events that could occur in their real work situations. For example, a travel agent needs to welcome clients and make them feel relaxed. For this reason, the teacher should include the target events, skill areas, language work, materials, and class activities that students need to know in order to perform successfully in these events (Poghosyan, 2016). As it can be seen in this study, Needs Analysis is a necessary and demanding process that teachers accomplish before planning an ESP course.
Another research study concerned with NA is titled “An Evaluation of Students’ Attitudes to the General English and Specific Components Course: A Case Study of Hotel Employees in Chiang Mai, Thailand” and was done by Brunton (2009). The aim of this study was to investigate hotel employees’ attitudes toward Hotel English and General English in an English course of eight weeks. The participants were 10 employees of five-star hotels, and the majority of them worked in the food and beverage department. The course content was negotiated with the participants and, as a result, a short Needs Analysis (NA) session was done with the participants and they were also interviewed about their goals. During the course, both Hotel English and General English were taught on different days of each week. After the classes, questionnaires were administered or class discussions were held about what the participants had studied that day. A final questionnaire on both components was administered at the end of the course. It was found that the participants’ attitudes toward both components did not differ significantly. For example, the hotel management wished to concentrate on specific English because of time and money. From the results, it was found that the ESP satisfaction was high; nevertheless, it was also found that the majority of participants wanted to learn General English. Another important finding was that General English benefited students within the EOP domain. Furthermore, the authors found that courses should be designed with regard to the employees’ immediate perceived needs. That is why the inclusion of NA and student interviews ensured that the course was designed successfully and could cover a broad range of wants and needs (Brunton, 2009).

These three studies focused on the importance of Needs Analysis (NA). At the School of Psychology the NA process was done by the English teachers, before implementing the English Program in 2014. Following that, at the beginning of this study, the methodology of the intervention was explained to the students. Moreover, the topics for the academic texts
were chosen with them through a brainstorm session in class, focusing on their interests and preferences.

Another study concerned with students’ attitudes when exposed to ESP was written by Arslan and Akvarov (2012) at the International University of Sarajevo (IUS). It was done with students who were admitted to the IUS and aimed at discovering their attitudes towards General English and English for Specific Purposes. The authors asked 15 questions of 100 students, whose level of English was upper-intermediate. They analyzed the findings by using a statistical software program called Statistical Package for the Social Sciences (SPSS). They also wanted to determine if students thought ESP courses would likely be helpful and therefore, should be obligatory. Based on the result analysis and discussions about students’ attitudes towards General English, the statistically significant answer was that most of the students found English interesting to learn. Most of the students believed that English would be useful in their future jobs. They found that half of the students trusted themselves in terms of productive skills and 38 of them were very confident when they spoke and wrote in English. This was probably because they were upper-intermediate level students.

On the other hand, in the discussion of the attitudes of students towards English for Specific Purposes, it was found that an overwhelming majority (76 out of 100 students) said that they were not familiar with some basic terms in English from their occupational field. The responses to the second question showed that the majority of students were aware that they lacked basic terms in English from their occupational field and they wanted these terms to be introduced in their English syllabus. As for the third question, 72 out of 100 students replied that they would like to have English classes focused on topics about their occupational field. This finding supported the fact that they were aware of their needs in terms of English for Specific Purposes. The fourth question asked if these classes should be obligatory: the number of students who said ‘yes’ was only 36%, that is to say, approximately
half of the ‘yes’ answers to the previous two questions, which is quite surprising. When answering the last question, most of the students said ESP classes would be helpful to them in their future jobs, so these responses supported what they stated in their answers to the second and third question. The authors conclude the article by observing that most of the students were aware that they lacked vocabulary knowledge related to their occupational fields, and they thought that something must be done to solve this problem (Arslan & Akbarov, 2012).

The research paper titled “Are Students’ Attitudes towards Reading in ESP Courses Field-dependant?” and carried out by Innocentini, Forte and Tuero (2013) at Universidad Nacional del Mar del Plata, Argentina also merits attention. The participants of this study were 86 undergraduate college students who were taking the English comprehension course offered in their curricula. From the total, 55 students belonged to the Agricultural Engineering major from the School of Agricultural Sciences - Group 1 (G1), while 31 students were History majors at the school of Humanities - Group 2 (G2). The Foreign Language Reading Attitudes and Motivations Scale (FLRAMS), which measures learners’ attitudes in terms of four main factors, was applied to collect data about the students’ motivations for and attitudes towards reading and the target language (TL). The four factors refer to the following aspects: 1) addresses the intrinsic value attributed to reading, 2) assesses the learners’ self-perceived reading efficacy, 3) deals with the extrinsic utility value attributed to reading in English and 4) measures the linguistic utility of the TL as perceived by the learners. A five-point Likert scale as suggested by the authors of the instrument in order to quantify the information provided by the learners was used. Students’ responses to the FLRAMS were analyzed. It was found that the attitudes of students in G2 as reflected by their answers to the FLRAMS tended to be more positive than those in G1. It could be that students’ prior experiences were negative in G1, which led them to see reading in English as “torture”, and also to perceive themselves as ineffective or incapable to read successfully in
the target language. Regarding reading attitudes and motivation, the responses provided by both majors showed a similar trend. Students from both Agricultural Sciences and History majors had an extrinsically motivated experience with English and for this reason the reading skills acquired were assumed to benefit students both personally and professionally in the future. It seemed that students’ awareness of the increasing role of English as a Lingua Franca was clear, regardless of their field of study. Students believed they could have access to better job opportunities and a better future by achieving good results in the target language. The authors suggest that “Alternative paths and further research efforts should be carried out if we wish to provide our learners with more efficient learning and reading strategies, which will help them to be better equipped in their future professional lives” (Innocentini, Forte, & Tuero, 2013, p. 39).

Finally, the study “A preliminary response of the Faculty of Psychology students of the University of Cuenca to the modified EFL teaching approach” completed by Bernal and Feyen (2016), explored students’ impressions of a modified EFL instruction process where students were trained in reading materials related to their major. The researchers used a 10-question online survey, which was answered by 106 students from the School of Psychology. From the results, it was apparent that “The incorporation of major-related reading material in the English instruction at the three levels seems to lead to an encouragement of the students to learn and improve their grammar and vocabulary in context, speaking and writing skills” (Bernal & Feyen, 2016, p. 7).

The last three studies mentioned investigated students’ attitudes and motivation towards English. They confirmed that students changed their attitudes and felt motivated to learn English when they saw it as another tool for their professional development.

Even though the present research did not specifically ask about attitudes and instead focused on perceptions, it can be said that students had a better attitude and expressed to be
more motivated when learning English with the help of specific materials related to their major.

To conclude this chapter, it is evident that ESP in language learning has been analyzed and recognized as an innovative approach in higher education to motivate and engage students in their own learning process. This literature review has led to an understanding of some important aspects of ESP, such as needs analysis, course planning, and the use of specific and appropriate material. It goes without saying that it is not easy for teachers to plan an ESP course. The contents and materials are vital for planning a course, especially because the aim of ESP courses is to help students to use English for their interests without forgetting that learning and improving English is the principal aim of any English course. The idea for this research study emerged because the application of ESP in the English syllabus at the ULI at the University of Cuenca-Ecuador is not seen as a priority in the English teaching-learning process. It is necessary that English teachers become aware of the students’ needs and interests in order to motivate them to see the English language as an instrument for their future professions and not only as a requirement to graduate. These studies have been the basis for the present investigation, where ESP was employed for the instruction of EFL students in the First Level of English credits course from the School of Psychology with the purpose of improving their English reading comprehension skills and making an academic contribution as a result.
Chapter IV

Methodology

4.1 Research Context

This study was developed at the University of Cuenca, where approximately one hundred and seventy students from School of Psychology attended the English Program. The School of Psychology offered three levels of English during the semester March – August 2016, with nine classes in total. The convenience sample for this study was formed by twenty-five students between eighteen and twenty-four years old, male and female, registered in First Level English Credit Course. The chosen sample was intentional because this group of students had not been exposed to ESP before, and probably some of them had been exposed to General English only. Other groups, second or third level, of this school have worked with ESP in previous levels; this was the main reason why they could not be included in this research.

4.2 Research Design

The study applied a convergent parallel mixed methods design in order to establish the effect of ESP on reading comprehension level (Creswell, 2014). As for collecting quantitative data, a pre-experimental design was used, this had a pre-test and a post-test to be administered to the convenience group. Qualitative data about the students’ perceptions was collected by employing instruments like the participants’ journals and interviews (Mackey & Gass, 2005).

According to Creswell (2014), both qualitative and qualitative data need to be collected, analyzed and compared. In this design, data about reading comprehension levels and students’ perceptions were collected at the same time, through different quantitative and
qualitative data collection instruments in order to bring together the strengths of these two procedures to validate the results. In the words of Morse (as cited in Creswell & Clark, 2007), “to obtain different but complementary data on the same topic” (p. 77).

4.3 Participants

The intervention for the study was carried out with a convenience group of twenty-five students registered in the First Level English Credit Course from School of Psychology at the University of Cuenca. The age range was from eighteen to twenty-four years old. The social stratum was mostly medium and low. As regards gender composition, there were more female than male students.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Number</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>Male: 9</td>
<td>25</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Female: 16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2: Research sample. Source: E-siuc registration

4.4 ULI Permission and Students’ Consent

As required by the regulations of the University of Cuenca, permission was sought and granted by University Language Institute to carry out the present research and ESP intervention in the First Level English Credit Course in the School of Psychology (Appendix F). Also, an informed consent written in the students’ native language was designed to avoid any misunderstanding (Appendix G). It contained information concerning the procedure and implications of the treatment. The voluntary participation of the students was clearly stated. It was also explained that the outcomes of this intervention would not affect their grades since all the data gathered would be used for the purposes of the research project only. The confidentiality of the students’ identity was also guaranteed.
All the students were adults. They agreed to participate in the experiment and signed the relevant document.

4.5 Procedure

What follows next is a description of the processes followed for the purposes of the present research study. First, a pre-test was applied before the intervention; second, there was an ESP intervention which lasted around twelve weeks. Third, during the intervention process the researcher asked the students to make three journal entries about their perceptions, feelings, and experiences on the use of ESP in their English classes. Fourth, personal interviews were conducted with six students, who were chosen randomly by the researcher to obtain information about their experiences and perceptions during these English classes. The purpose of the interviews was to expand the qualitative information and contrast it with the students’ opinions written in their journals, since the information obtained from the journals was scarce. In the course of the journal writing process, it became clear that the data were not rich enough and, therefore an additional quantitative instrument was designed. This was a closed-question survey about the students’ anxiety level and their perceptions on the use of ESP. Finally, a post-test was applied at the end of the semester.

4.6 Data Collection Instruments

4.6.1 Pre-test

Before starting the intervention, a pre-test to determine the reading comprehension level of the students was administered to the convenience group mentioned before.

The instrument used for the pre-test was an A2 standardized reading comprehension test in line with the Common European Framework of Reference for Languages, taken from the “Exam English” website (Exam English Ltd., 2016, p. 2). The test was online and was taken by the students through the university’s e-virtual platform in the Philosophy Computer Lab.
The test evaluated reading comprehension in general English. It was taken on March 30th, 2016 (Appendix H).

4.6.2 Intervention Description

The classes were delivered during the semester March - August 2016 with the aim of investigating the effect of English for Specific Purposes on the reading comprehension level of Psychology students; the convenience group was instructed by means of an ESP intervention process that lasted 36 hours, where the teacher used reading texts related to the Psychology field to develop different activities.

During the ESP intervention a wide range of activities, such as identifying the main idea, skimming, scanning, drawing inferences, generating questions, getting meaning from context and summarizing were used to improve the students’ reading comprehension skills. It applied the ESP approach for three hours per week for twelve weeks. At the beginning of the semester, the texts were selected by the students according to their needs and interests, but all of them had to be related to the Psychology field. These academic texts were then reviewed by the teacher.

A booklet with the selected academic readings was photocopied for the students. Every week different topics related to Psychology, for example, The power of hypnosis, Behaviorism, Positive Psychology, and Bipolar Disorder were studied three hours a week (Appendix I). First, the students were asked to read the text at home. Then, videos about the topics were presented in class. Next, the teacher asked the students to recall their previous knowledge about the subject. Later, worksheets with different reading comprehension activities, such as answering questions, mind maps, concept maps, word search, true or false, synonym match, phrase match, Venn diagram, were given to students. Students had to go over the article again and complete the activities deemed appropriate for the topic. After that,
general questions about the students’ understanding were asked, and the answers were discussed in pairs. Finally, a summary about the topic was written by the students (Appendix J).

In addition, some short bibliographical research projects were done by students in groups in order to promote cooperative learning and develop other skills (Appendix K). They worked on the research for a month and presented a written report. The proposed topics for the projects were:

1. Main authors and their influence on the Psychology field
2. Movies and books related to psychological cases
3. Influence of psychological terms on society
4. Social Roles: How people change according to the environment
5. Neuromarketing: the influence of Psychology in advertising
6. Social Networks and their influence on society

They also prepared a power point presentation about each one of these topics, in groups, for their classmates. The rest of the class had to fill out a short form about their classmates’ presentations.

Through informal observation, the researcher can confirm that social interaction did take place in these group activities and encouraged cooperative learning whereby students were able to develop their writing, listening, and speaking skills.

4.6.3 Journals

During the process mentioned above, some journal entries were written on three different dates of the semester: April 16th, April 27th and May 25th, 2016 with the purpose of exploring the participants’ perceptions regarding their reading comprehension level in order to ensure continuity in anecdotal records. Such records were registered through the creation of a virtual
course and through handwritten documents. The students were asked to write their journal entries about their perceptions, feelings, and experiences about the use of ESP in their English classes (Appendix L).

The students were asked to respond to three questions in their entries: 1) ‘What is your perception about learning English through ESP?’ 2) ‘How do you perceive your English classes?’ , and 3) ‘How do you evaluate your own reading comprehension with this teaching method?’

4.6.4 Interviews

Six students were randomly chosen to be interviewed in Spanish by the researcher, and their answers were recorded and transcribed to gauge their experiences and perceptions about their English classes based on ESP. This was done in order to expand the collected information and contrast it with the students’ opinions written in the journals, since the information obtained from the journals was insufficient. There were six issues to be raised; however, during the interview, other topics related to these English classes were discussed between the researcher and the students.

1. From your point of view as a university student, describe your experiences in your English classes at the School of Psychology.

2. In the School of Psychology, teachers work with reading material related to Psychology. Could you describe the effects of this activity on your reading comprehension?

3. Tell us an occasion that you remember about working with specific readings.

4. Comparing the traditional English teaching approach (high school) and the university English teaching approach (ESP), what are the advantages and disadvantages of both?
5. How do you evaluate your own English learning through ESP?

6. Is there any other remark that you wish to make about ESP?

To gather the students’ perceptions about the ESP classes, these interviews were conducted on June 27th and 29th, 2016.

4.6.5 Survey

The instrument applied was the International Standardized and Validated Test survey, which was taken from a study conducted with EFL students at the Institute of Foreign Languages in Cambodia, The Modified Foreign Language Reading Anxiety Scale Test (MFLRAS). The survey addressed the level of anxiety and perceptions of reading comprehension in EFL students. The questionnaire had 20 closed-questions with ordinal variables and qualitative scales of qualification. The survey was validated with a pilot group of 30 students from the First Level of English at the Institute of Languages at the University of Cuenca. The survey was then administered to the participants on June 28th 2016 (Appendix M).

4.6.6 Post –test

To conclude the intervention, a post-test was administered to the study group in order to compare the reading comprehension level of the students before and after the application of the ESP approach.

The instrument used for the post-test was an A2 standardized reading comprehension test taken from the “Exam English” website (Exam English Ltd., 2016, p. 2). This test was also online and was taken by the students through the university’s e-virtual platform in the Philosophy Computer Lab on July 6th 2016 (Appendix N).
4.6 Data Analysis

The goal of this research was to establish the effects ESP has on the English reading comprehension level of Psychology students. Different instruments (both quantitative and qualitative) were used to collect data and to assess the reading comprehension performance and learn about the perceptions of the participants.

The quantitative data obtained from the pre-test and post-test was statistically analyzed. The Wilcoxon Signed-rank test was applied in order to compare and determine the difference between the pre-test and the post-test results.

The qualitative data was transcribed, interpreted, and categorized in order to determine the recurrent codes and topics mentioned by the students in order to obtain their perceptions about ESP (Appendix O).

Finally, the results were compared to establish a relationship between the quantitative and qualitative information. This information analysis and its interpretation permitted us to find the relationship between the strands (variables) of the study: ESP and English reading comprehension level.

In the following chapter, the results arising from the data are presented and analyzed in order to find out how far they provide satisfactory answers to the research questions posited.
Chapter V

Results

5.1 Data Analysis and Interpretation

The aims of this study were to determine the English reading comprehension level of the students before and after the application of ESP through a standardized test and to explore the students’ perceptions regarding their reading comprehension level through a mixed method strategy. To reach these objectives both quantitative and qualitative data was collected with the help of different instruments.

This chapter presents and analyzes the data collected during the intervention process. It includes the pre-test and the post-test results, which were analyzed with the statistical Wilcoxon signed-rank test. Also, students’ journals and interviews were transcribed and analyzed through a qualitative procedure. Finally, a closed-question survey was statistically analyzed and interpreted.

5.1.1 Pre-test and Post-test Results

These tests were applied in the semester March-August 2016 in order to determine the English reading comprehension level of the students before and after the application of ESP. The group studied was the First Level English students from the School of Psychology at the University of Cuenca. The group consisted of 25 students, 9 male and 16 female participants between eighteen and twenty-four years old. The non-parametrical Wilcoxon Tests, used in groups with less than 30 participants, were administered. The Statistical Package for the Social Sciences (SPSS) program was used to analyze the quantitative data. The pre-test and the post-test results are presented below.
Table 1

*Students’ Scores from Pre-test and Post-test*

<table>
<thead>
<tr>
<th>Student</th>
<th>Pre-test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>64.5</td>
<td>73.5</td>
</tr>
<tr>
<td>2</td>
<td>43.5</td>
<td>47.5</td>
</tr>
<tr>
<td>3</td>
<td>35.5</td>
<td>34.0</td>
</tr>
<tr>
<td>4</td>
<td>59.0</td>
<td>55.5</td>
</tr>
<tr>
<td>5</td>
<td>27.5</td>
<td>66.0</td>
</tr>
<tr>
<td>6</td>
<td>24.0</td>
<td>37.0</td>
</tr>
<tr>
<td>7</td>
<td>36.5</td>
<td>60.5</td>
</tr>
<tr>
<td>8</td>
<td>37.0</td>
<td>51.5</td>
</tr>
<tr>
<td>9</td>
<td>54.0</td>
<td>63.5</td>
</tr>
<tr>
<td>10</td>
<td>56.5</td>
<td>58.0</td>
</tr>
<tr>
<td>11</td>
<td>48.5</td>
<td>41.0</td>
</tr>
<tr>
<td>12</td>
<td>66.0</td>
<td>67.0</td>
</tr>
<tr>
<td>13</td>
<td>46.0</td>
<td>45.0</td>
</tr>
<tr>
<td>14</td>
<td>41.0</td>
<td>30.5</td>
</tr>
<tr>
<td>15</td>
<td>43.0</td>
<td>56.5</td>
</tr>
<tr>
<td>16</td>
<td>43.0</td>
<td>51.5</td>
</tr>
<tr>
<td>17</td>
<td>58.0</td>
<td>47.5</td>
</tr>
<tr>
<td>18</td>
<td>44.5</td>
<td>63.5</td>
</tr>
<tr>
<td>19</td>
<td>46.0</td>
<td>35.5</td>
</tr>
<tr>
<td>20</td>
<td>39.0</td>
<td>40.5</td>
</tr>
<tr>
<td>21</td>
<td>44.5</td>
<td>62.0</td>
</tr>
<tr>
<td>22</td>
<td>45.0</td>
<td>41.0</td>
</tr>
<tr>
<td>23</td>
<td>39.5</td>
<td>30.5</td>
</tr>
<tr>
<td>24</td>
<td>83.0</td>
<td>72.5</td>
</tr>
<tr>
<td>25</td>
<td>34.0</td>
<td>38.0</td>
</tr>
<tr>
<td>Mean</td>
<td>46.36</td>
<td>50.78</td>
</tr>
</tbody>
</table>

The means analysis and comparison gave the following results.

Table 2

*Means Analysis and Comparison*

<table>
<thead>
<tr>
<th>Statistical</th>
<th>PRE-TEST</th>
<th>POST-TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEAN</td>
<td>MEAN</td>
</tr>
<tr>
<td>N Valid</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Lost</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Mean</td>
<td>46.36</td>
<td>50.78</td>
</tr>
<tr>
<td>Median</td>
<td>44.50</td>
<td>51.50</td>
</tr>
<tr>
<td>Mode</td>
<td>43.00&lt;sup&gt;a&lt;/sup&gt;</td>
<td>30.50&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> There are several modes. The lowest value is displayed.
As it can be seen in the table, the means of the study group differ in the pre-test and the post-test results. In the pre-test, the average is 46.3 out of 100; in the post-test, the average is 50.7 out of 100. Therefore, the conclusion that can be made is that there is an increase of 4 points in the overall average of the group.

Table 3
*The Wilcoxon Signed-rank Test*

<table>
<thead>
<tr>
<th>Contrast Stats&lt;sup&gt;b&lt;/sup&gt;</th>
<th>POST-TEST MEAN</th>
<th>PRE-TEST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>-1.468&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Sig. asymp. (bilateral)</td>
<td>0.142</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Based on negative ranges
<sup>b</sup> Wilcoxon Signed-rank test

According to the Wilcoxon signed-rank Test, the level of significance is higher than 0.05, which statistically indicates that there is no significant relationship between the two samples of the study group. The sign test was also performed in order to test the value of The Wilcoxon Signed-Rank Test results of the pre-test and the post-test.

Table 4
*Wilcoxon – Sign Test*

<table>
<thead>
<tr>
<th>Contrast Stats&lt;sup&gt;b&lt;/sup&gt;</th>
<th>POST-TEST MEAN</th>
<th>PRE-TEST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. exact (bilateral)</td>
<td>0.424&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> The binomial distribution has been used.
<sup>b</sup> Sign test

As in the previous case, the level of significance is above 0.05, which indicates that there is no statistically significant difference between the results of the pre-test and the post-tests.
From the Wilcoxon Tests, it can be seen that there is no statistically reliable evidence to affirm that there was a substantial improvement in reading comprehension skills as a consequence of the application of ESP. Even though there was a tendency to rise (as indicated by the comparison of means), it cannot be concluded that this tendency was the result of the ESP intervention exclusively.

5.1.2 Journal Entry Interpretation

In the qualitative phase of the study, in order to explore students’ perceptions regarding their reading comprehension level, journals entries were written in three moments during the intervention: at the beginning, in the middle, and at the end of the semester. The questions for the students were as follows: ‘What is your perception about learning English through ESP?’ ‘How do you perceive your English classes?’ and ‘How do you evaluate your own reading comprehension with this teaching method?’ The responses written by the participants were supposed to be less than one hundred words. It is important to highlight that the journals were written in Spanish because the entries were made by First Level students of English and the goal of this technique was to collect and analyze their opinions about the ESP treatment. The students’ answers were transcribed and categorized by the researcher.

The students’ perceptions about ESP classes can be divided into two aspects: positive aspects and negative aspects. First, it is evident that motivation is a recurrent topic mentioned by students. They said that they perceived the class as interesting because they were studying topics they liked. In other words, they studied texts related to Psychology, which in some cases stimulated their own interest in continuing learning English by themselves outside the class. There was a student who said, “It is simply great to learn English in this way”. Second, judging by some of the comments, it is clear that didactics is another relevant topic. They used different adjectives to describe the English classes, such as dynamic, pragmatic, versatile, technical, interesting, productive, understandable, rewarding, interactive, and
pleasant. Third, they felt that the activities done in classes helped them to develop their language proficiency because they practiced reading, writing, listening, and speaking, and they reinforced their English learning. In addition, most of the students wrote about the relationship between English and Psychology. They described it as being very useful for them because they could learn new vocabulary related to their field of study, which helped them to be familiarized with the terms and be able to read articles in English for other subjects included in their major. Finally, students made a comparison between their reading comprehension level at the beginning of the semester and at the end of it. They wrote phrases like “Now, I can read longer scientific texts. It is easier and faster to read a text”. They said they learned how to handle and understand a text avoiding word by word translation. They realized they improved their reading comprehension level.

On the other hand, there were also negative perceptions about the English classes. They said that there was not enough work done on vocabulary within the reading comprehension activities; and they suggested reviewing the vocabulary before exploring a text. They also said that some grammar structures, like questions and answers, needed to be practiced more thoroughly. In the final reading comprehension self-evaluations, a few students said that their reading comprehension improvement was very low with this approach. Here are some of the comments: “I think that my reading is not good” and “It is below average, I have managed to understand only some parts of the reading”.

5.1.3 Interviews Interpretation

At the end of the semester March – August 2016, interviews about the students’ perceptions were conducted with six students, who were randomly chosen. The interviews were transcribed, analyzed, and categorized looking for similar themes. The categories were: motivation, didactics, advantages, disadvantages, suggestions. The information obtained from the interviews is presented below.
Motivation was the first relevant issue found in the students’ answers. Some of the interviewees said that they saw ESP as a new perspective in learning English, and as something that attracted their attention and motivated them to learn English. They recognized that nowadays English is the universal language, which will help them to become better professionals. They felt motivated to read texts related to Psychology in English.

A second important aspect highlighted by the students was didactics. They described their classes as interactive and practical. They said that all the language skills were used and developed during the classes. As for the reading activities, they even remembered some of the activities they worked on. They said they liked the listening and writing activities and they liked their English classes altogether.

From the information obtained, it can be seen that they found several advantages in the use of ESP. All the interviewees evaluated their own reading comprehension level and confirmed that it improved during the semester. They said that at the beginning it was difficult for them to read academic articles related to Psychology, but at the end of the semester, they were more familiar with them. Another advantage they talked about was related to the four skills enhancement and development. They said they felt more confident to talk and write in English at the end of the semester.

However, some disadvantages about the ESP application in classes were also mentioned. Some of them talked about how grammar was to some extent sidelined. They alleged that it was a weakness of this approach because they think grammar is an important part of learning a foreign language. The lack of sufficient vocabulary work surfaced again in the interviews. They said it was necessary to reinforce some lexical items when studying English. Some of the students also mentioned that they had a bad experience with learning English. They said they had grown tired of the repetitive language classes at high school. The students’ prior
experiences might have affected their perceptions of the new approach at the beginning of the intervention.

Finally, the students made some suggestions about the English classes and the ESP application. They said that sometimes it might be important to read general English texts instead of reading Psychology texts all the time. They said that some students had a very low English level. They suggested that the classes should be less challenging at the beginning. Another suggestion was to work in groups more frequently because it helped them to learn from each other. They said they liked dynamic classes, and they suggested having more of this kind of classes. They suggested working more on grammar. A few of them said that there were not enough speaking activities and suggested that more of those should be included in the course.

In general, students had a favorable perception of the ESP approach used in the classes. This was reflected in the tone of their comments, which suggested satisfaction and appreciation for the knowledge received and the skills improvement they have achieved.

5.1.4 Survey Results

The survey named Modified Foreign Language Reading Anxiety Scale (MFLRAS), adapted from Saito et al. (1999), was administered on June 28th, 2016 to 23 students of the First Level of English from the School of Psychology at University of Cuenca. It is an International Standardized and Validated Test, with closed-questions, which has qualitative ordinal variables. Even though the survey included 20 questions, only the interpretation of the results of the most relevant questions are presented below.
Based on the results of Figure 3, it can be said that students were not familiar with long texts in English because if we take into consideration the answers *always* and *usually*, 43% of the students said that they felt overwhelmed whenever they saw a whole page of English in front of them and only 9% of them answered *never*.

The bar chart in Figure 4 shows that students preferred to read about familiar topics, since 78% of the students (*always, usually and sometimes*) said that they were nervous reading a passage in English when they were not familiar with the topic; only 4% said they were *never* nervous. Previous knowledge about some of the topics in L1 (Spanish) may have helped them to infer some vocabulary.
Figure 5. Question 12 MFLRAS Survey.

The results of Figure 5 were very significant because students said they liked to read text in English, which could be very beneficial for their learning process. 74% of the students said they *always, usually* and *sometimes* enjoyed reading English. Only 4% of the students said that they *never* enjoyed reading.

Figure 6. Question 13 MFLRAS Survey.

Based on the results of Figure 6, it can be inferred that after being exposed to several texts in English during the intervention, the students acquired confidence in reading. Sixty-one percent of the students said that they *always, usually* and *sometimes* felt confident when they were reading in English.
Figure 7 demonstrates that 91% of the students said that once they got used to doing it, reading English was not so difficult. These results support the previous questions, namely, it can be said that students realized that they were able to read in English.

The results shown in Figure 8 reveal that after reading for a semester, students did not see reading as the hardest skill, since 60% did not think that the hardest part of learning English was learning to read.
The results of Figure 9 present the students’ self-evaluation about reading comprehension as described in their journals. Eighty-seven percent (always, usually and sometimes) said they were satisfied with the level of reading ability in English that they had achieved so far. Only 4% said that they were never satisfied with it.

As it was explained above, only the most significant questions were presented in this section. The results from the other questions can be reviewed in the Appendices section (Appendix P).

In sum, this chapter has analyzed the results obtained in the course of this research study through the application of the different qualitative and quantitative data collection instruments.
Chapter VI

Discussion

This chapter discusses the significance of the results obtained from the different data collection instruments used in this research study. It also compares the results from both the quantitative and the qualitative data to analyze the relationship between them as well as the relationship between the findings and the previous studies done in this field. Besides, it presents some of the limitations that affected the study.

In order to answer the first research question of this study, (“To what extent can ESP improve the English reading comprehension ability of Psychology students?”); a pre-test and a post-test were administered to a group of 25 students from the School of Psychology at the beginning and at the end of the semester, respectively, in order to determine the English reading comprehension level of the students through these standardized tests before and after the application of ESP.

Based on the results, comparing the pre-test and the post-test averages, it can be said that there was a slight improvement in the English reading comprehension level of the students; this, in spite of the fact that the statistical results showed that the reading comprehension improvement was not noteworthy. Snow (2002) defines reading comprehension as an ability to read a text and understand its meaning. Consequently, the goal of the reader is to try to understand what the reading is about. The aim of the reading comprehension has been fulfilled with the intervention; however, in this study case, the students’ grades in the tests were not statistically significant. In contrast, according to the literature review, it was found that Bautista Barón (2013), stated that in her study done in Colombia the students showed a significant improvement in their reading comprehension level. This may be due to some factors or limitations may probably have affected the participants’ reading comprehension
performance in the present study. The first is that the duration of the intervention was only 12 weeks which allowed for 32 hours of ESP. As for statistical validity, another limitation was constituted by the number of students since the minimum required number of participants for parametrical statistical tests is 30. This condition was not possible to fulfill because only 25 students were registered in the class. The third issue worth mentioning is the fact that the English level of students may not have been appropriate for the intervention. It is important to remember that the study group was a First Level, and their proficiency level was really low in most cases. In other words, they had very basic vocabulary, which did not permit them to understand the academic texts easily. In most cases, the ESP programs described in the literature review were applied to higher levels. For example, in Arias’ study (2014) carried out with law students, she indicates that she conducted her research with a group of fifth-level English students. Also, a study about difficulties in teaching ESP at a university in Vietnam, (Hoa & Mai, 2016) showed that almost 60% of the students had difficulties in recognizing vocabulary and they depended on the dictionary. In the present study, students were not allowed to use a dictionary while taking the pre-test and the post-test.

The fact that English is a foreign language in Ecuador could be perceived as a further challenge. According to Tian and Wen-Wen (2016) “When the learning environment in second language is similar to that in first language learning, second language acquisition will be most successfully achieved” (p. 2). It is important to take into consideration that in the Ecuadorian context, English is taught as a foreign language and not as a second language, for this reason, students do not use English outside the class and the acquisition of English will be slower than in countries were English is needed for daily communication.

In the case of this study, it was the first time students were exposed to academic reading in another language in their field of study. Although it was a new perspective in learning English, most of the students did not have enough experience in these kinds of tasks and were
not interested in practicing what they learnt outside the class. This factor is reiterated by Alqahtani (2015), when he suggests that although engineering students were interested in learning the English language, they were not motivated to make an extra effort enhance their skills in English. Pampillo (2013) comes to the same conclusion, when she states that for her students, who attended Third Level of English, it was difficult to use academic language even after receiving long periods of instruction.

Likewise, it is necessary to take into consideration the influence of the classroom environment. Students took their English class in the Engineering School building, where the assigned classroom for the subject was quite small; consequently, the classroom environment was not really suitable for the intervention. Besides, the class schedule was grueling, since they had their regular classes from 7 a.m. to 1 p.m. and then their English classes from 2 p.m. to 4 p.m.

As it can be seen, some internal and external factors could have probably affected the quantitative results of this study, and consequently, there is only a slight change between the pre-test and the post-test results.

To answer the second research question of this study, ("What are the students’ perceptions about their own reading comprehension in an ESP context?"); two qualitative instruments were used during the study in order to explore students’ perceptions regarding their reading comprehension level and the ESP application itself.

The first qualitative instrument used was the students’ journals. From the analysis of the journal entries, it transpires that students were motivated because they perceived the classes as interesting since they were studying topics related to their field of study, namely, Psychology. Correspondingly, Arias (2014), said that specialized text increased students’ motivation because her law students were engaged in reading about the laws applicable to crime and punishment in the United States. In this research, students had the opportunity to
work with different topics related to their field of study, Psychology, and accomplish different activities around those topics during the semester. At the end of the semester, they showed that they were motivated to use English as a tool for reading articles about their major. Clark and Rumbold (2006) suggest that intrinsic motivation refers to engagement in an activity in which students are driven by internal rewards; for example, reading for curiosity, enjoyment or satisfaction. The teaching and learning process should be challenging to students generating curiosity, and making it valuable for them. Also, Bernal and Feyen (2016) affirm that their students were enthusiastic about using materials related to their field of study, and this improved their motivation to study English.

A second relevant topic extracted from the students’ journals was didactics. They described their English classes as dynamic, interesting and productive. This outcome is supported by Boroujeni and Fard (2013), who found out that almost 90% of the students preferred to have an active role in the classroom and work in different setups, like pair work/group work, and take part in games and projects. In the present study, it was found that students described their classes as dynamic because in this approach they were part of their own learning while working on worksheets, discussions, project presentations, and journals. The use of such activities are corroborated by Jonassen (as cited in Tarnopolsky, 2015) when he states that a constructivist class should be active, constructive, cooperative, intentional, conversational, contextual, and reflexive.

As a result of being active in class, students said they felt they improved their English proficiency through practicing reading, writing, listening and speaking skills. According to Bernal and Feyen (2016), the incorporation of major-related reading material in the English instruction seems to lead to an encouragement for the students to improve their grammar and vocabulary in context, as well as their speaking and writing skills. Although the ESP treatment in this study was focused on reading, the other skills were also developed because
students worked on different activities, which required speaking, listening, and writing. This finding is supported by Dudley-Evans and St. John (1998) who stress that “ESP is centered on the language appropriate to these activities in terms of grammar, lexis, register, study skills, discourse, and genre” (p. 6).

The last open-ended question in the journal entries asked students to evaluate their own reading comprehension skills at the end of the semester. Most of them said there was an improvement in their reading comprehension. In the study done by Arias (2014), it was also found that the students were able to connect their previous knowledge about law with the text they read about this field of study in English. She suggests that students were trained in reading comprehension techniques, which helped them to become self-confident in English use. In our case, it can be assumed that the previous knowledge that most of the students had about Psychology, helped them to understand the text used during the semester.

In the majority of cases, students said they could understand most of the text because they related the reading to their major. It is important to mention that, according to their opinion, vocabulary was a limitation in their English reading comprehension. Even though most of them were satisfied with the ESP intervention, a few students raised the issue that vocabulary was not dealt with sufficiently during the reading comprehension instruction process. As it was mentioned before, Hoa and Mai (2016) found that their students had difficulties when faced with the specialist vocabulary involved. Arslan and Akvarov (2012) also pointed out that most of their students were aware that they lacked sufficient knowledge of vocabulary related to their occupational fields.

When analyzing the messages emerging from the interviews, the issue of “motivation” was a frequently recurring item. The interviewees said that ESP was a new perspective in learning English for them. It drew their attention to their existing language skills and motivated them to learn more English. According to Torregrosa and Sanchez-Reyes (2011),
realism and the use of authentic materials increase learners’ motivation and expose them to real language and culture as well as to the different genres of the professional community to which they aspire. In this research, it was observed that the students were interested and motivated in working on Psychology topics. This is in accordance with the findings of the research conducted by Alqahtani (2015), who found that students had a positive attitude and motivation for learning English as a second language while studying through the ESP approach at a Saudi university. Similarly, Arslan and Akbarov (2012) emphasized that their students would have preferred to be given courses where English is connected with their field of study because they believed that taking ESP classes would be helpful in their future majors. In the same way, Innocentini, Forte and Tuero (2013) concluded that as regards motivation and attitudes to reading, students had extrinsic motivation since they believed English could help them personally and professionally in the future. Furthermore, Brunton (2009) affirms that his students appreciated ESP because it had an immediate communicative relevance for their jobs.

Students talked about didactics both in the interviews and the journal entries. They remembered some of the activities that were carried out during their classes, and they described them as interactive. According to Tarnopolsky (2012), an ESP class should include the basic principles of integrating English speaking, listening, reading, and writing into the learning process. In our case, although the main objective of the ESP treatment was to improve the reading comprehension level, the class activities also included overall language skill development, which permitted students to interact in class with other students and the teacher.

Based on the information obtained, the students of the present study were able to identify some of the advantages arising from the ESP methodology. They stated that their reading comprehension level improved during the semester. In a previous study, Ahmadi (2013)
found that students who had higher motivation in reading would increase their English reading comprehension proficiency more than those without. In our case, students also talked about the enhancement and development of the four skills. They said they felt more confident to talk and write in English by the end of the semester. As it is known, English as any other language, has more than one skill involved. In consequence, when reading comprehension improves, the other skills are also developed because students can work on activities that integrate listening, reading, writing and speaking at the same time.

Nevertheless, some students found shortcomings regarding the ESP application, such as the weaknesses in the treatment of grammar and the lack of sufficient vocabulary instruction. However, the ESP approach is more focused on language in context than on teaching grammar and language structures. As it is explained by Tarnopolsky (2012), the learning activities are oriented to the specialist context; however, vocabulary, grammar, and pronunciation are collateral while not being specifically reinforced.

Overall, the students’ perceptions about the ESP application seem to be satisfactory, but the limitations mentioned would need to be taken into account for further studies.

Additionally, to compare both the quantitative and the qualitative data results and to analyze the relationship between them, supplementary quantitative data had to be collected to contrast the qualitative data obtained from the journals and the interviews. The Modified Foreign Language Reading Anxiety Scale (MFLRAS) survey was administered at the end of the semester to twenty-three participants (out of 25). The most relevant questions for the present study were taken into consideration to analyze the research findings.

The results from the survey showed that there was a favorable tendency towards reading after the ESP intervention. Although 52% of the students answered that they felt intimidated when they saw a whole page of English text in front of them, it was found that 73% answered...
that they enjoyed reading in English. These results are in line with those obtained by Arias (2014), who stresses that reading is an essential part of both students and professionals’ daily tasks. She also found that specialized texts increased students’ motivation because they read a large quantity of relevant information. In the same manner, the students of the present study felt motivated to read in English after the application of the ESP course. Further, Jacobson, Degener, and Purcell-Gates (as cited in Bautista Baron, 2013) remark that adult students prefer to receive instruction that uses authentic materials and activities which can help them to cope in their professional lives.

In our case, it has also been found that 60% of the students felt confident when they were reading in English. This finding is similar to that of a previous study done in Saudi Arabia where Alqahtani (2015) found that the students’ needs and interests are connected to their learning experiences and background, which increases their self-confidence.

Fifty-six percent of the participants answered that once they got used to doing it, reading English was no longer that difficult for them. This percentage illustrates the importance of working with specific and authentic materials in the English class. According to Bautista Barón (2013), the results of the survey applied at the end of the course in her study confirmed that 63% of the learners reflected that they were always able to comprehend the contents included in the reading activities, while another 37% could usually understand the texts. Similarly Arias (2014) affirms “authentic materials are important tools for using in ESP classes, they motivate and immerse learners in specific areas of the target language in which practice is needed” (p. 107).

Sixty percent of the participants in the present study did not agree that the hardest part of acquiring English was learning to read. This means that reading comprehension was not the most difficult skill to learn. Learners were conscious about the importance of developing their reading skills since 73% of the students answered that they rarely or never thought they
would be happy just learning to speak English, they would rather learn to read. According to Arias (2014), students build up their prior knowledge through time; this information becomes significant in the reading process when students link their previous knowledge with new information, which allows for better comprehension.

Finally, it was found that 86% of the participating students declared that they were satisfied with the level of reading ability in English that they managed to achieve. Motivation was very important to attain a good level of reading comprehension; students who were satisfied with their level of reading showed that they were motivated to continue developing this skill. Ahmadi et al. (2013) claim that researchers who conducted studies in the field of motivation, found that it was one of the most significant factors that affected students’ reading comprehension. In the same way, Ryan and Deci (2000) state that “Intrinsic motivation is defined as the doing of an activity for its inherent satisfactions” (p. 56).

It needs to be mentioned that the fact that the survey was drafted in English may have proved to be an additional challenge for the participants. The teacher had to translate it question by question during its application because the level of the students was not advanced enough.

To finish this chapter, it can be said that even though the statistical results showed that the students’ English reading comprehension improvement was not significant, their perceptions about their reading comprehension level after the ESP application showed that they were generally pleased with it. In sum, in spite of the fact that the present study had some limitations, it is important to mention that it would be helpful to include the ESP approach in the EFL classes’ context to encourage students to realize that English could be an important tool for their professional development.
Chapter VII

Conclusions and Recommendations

This chapter presents the conclusions and recommendations based on the findings and limitations found in the present research. This study was based on two variables. The independent variable was the ESP approach application in the Psychology field, while the dependent variable was the improvement of the students’ English reading comprehension level.

First, based on the findings, this study shows that there was an improvement in the reading comprehension ability of the Psychology students after the application of ESP in their English classes during the semester March - August 2016. Even though the improvement was not statistically significant, the students’ perceptions about their own reading comprehension were positive.

As regards to the sample size, namely, not having enough students for a special kind of statistical testing, it can be recommended that the intervention should be carried out involving bigger groups of students in order to have enough information for parametrical statistical tests.

Journals and interviews were done with the students, and it was found that they evaluated their reading comprehension level as satisfactory. Most of the students recognized that when comparing their reading comprehension ability at the beginning of the semester to that at the end of the semester, they were able to read and understand longer texts. They affirmed that their reading comprehension levels had improved. Furthermore, it was found that most of the
students who completed the survey stated that they were satisfied with the level of reading ability in English that they had achieved.

Concerning the instruments used for collecting the data, it was important to obtain the students’ opinions and perceptions; however, it would be recommended that the Likert scale used for the surveys could be different because most of the students preferred to answer “sometimes” to most questions, which did not give a clear position of their opinions. In the qualitative data collection, interviews were more useful to obtain richer information that was required for the analysis.

Regarding the students’ perceptions about the ESP approach in their classes, it was also found that most of the students said they felt motivated to work on topics related to Psychology. In the journals and interviews, students said they found their classes interesting. Some of them affirmed they liked their classes because they learned English while they were reading about topics that were interesting to them. This corroborates the findings of Arias (2014), Alqahtani (2015), Bautista Barón (2013), Bernal and Feyen (2016), who also found in their research that students were motivated to learn English when using materials and topics related to their field of study.

Students need to see English as a tool for their professional lives, and working with specific texts can help them to have a broader overview of their own profession. Motivation is an important factor that needs to be considered by teachers since, in the Ecuadorian context, English is taught as foreign language rather than a second language, which most of the time is a disadvantage for teaching because students do not fully realize the importance of learning English. Working on motivation regarding English as such is recommended for further studies.
The didactic approach known as ESP favored the strengthening of language skills for social interaction: reading, listening, writing, and speaking. Although the approach designed for the intervention of the present study was focused on reading comprehension, it has been found that the development of the other skills also improved. It is important to remember that at the beginning ESP was born as an answer to specific professional and academic needs. However, its use in higher education requires practicing all four language skills.

Another suggestion for English teachers, who want to use ESP in their classes, could be to take into consideration more work on vocabulary activities before reading and exploring academic texts.

The main conceptual referents, who gave support to this research were Hutchinson and Waters (1987), and Dudley-Evans and St John (1998), since they stated that the ESP approach helps students to learn English in an effective way, which has been proved in this research. It is possible to summarize their theory with the phrase “Tell me what you need English for and I will tell you the English that you need” (Hutchinson & Waters, 1987, p. 8).

Even though this research was done in the School of Psychology, it is recommended to expand the scope of ESP to other fields of study. For example, it can be applied to all the majors at the University of Cuenca. One advantage of ESP is that generally, students who take English have previous knowledge in their fields of study about what they are going to read in the target language, which is beneficial for them because it makes the readings meaningful to them while they can practice and improve their English.

As has been discussed above, in most cases ESP has been used with students who had a good English proficiency level. This study was done with participants in the First Level Credit Course of English at the University of Cuenca. This could be one reason why the selected group’s improvement in the test results was not statistically significant. A suggestion
for further studies and applications would be to work with higher-level students. In the case of the University of Cuenca, the ESP application could be done with the Third Level of Credit courses, where students are proficient enough in English and can apply a combination of language skills and the previous knowledge of their majors to develop reading comprehension skills using specific academic readings.

In summary, based on the different data collection instruments used and the results obtained in this research, it can be said that the ESP approach should definitely be considered for future curriculum plans, since if students claim that they need English as a tool for their professions, higher education institutions should answer this demand and teach English as a subject on par with the others to enhance their professional development, and not only as an unavoidable requirement for graduation.
References:


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