



UNIVERSIDAD DE QUINTANA ROO

División de Ciencias Políticas y Humanidades

**Developing reading strategies for university students:
medicine and nursing**

PRESENTA

Melanie Vanessa Lara Sima

Trabajo de tesis elaborado para obtener el grado de
MAESTRA EN EDUCACIÓN

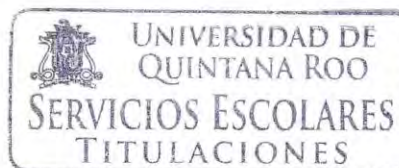
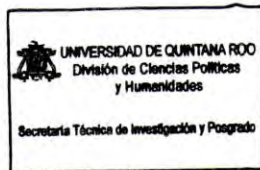
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 MEDICINE AND NURSING**

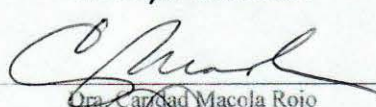
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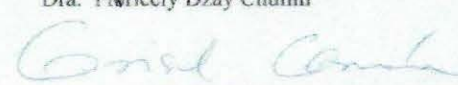
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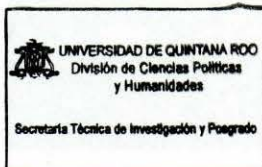
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Melanie V. Lara Sima

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ABSTRACT

Most academic and professional information is available through publications in English. The ability to read in English is widely seen as an essential skill for university students in many countries, like Mexico, where English is a foreign language. However, students often have problems when reading these publications because their reading ability is not good enough. This study introduced and measured the effectiveness of a training approach to the teaching of reading strategies through the use of texts related to students' major. It was a quantitative study with quasi-experimental design. One class of eighteen students from medicine and nursing majors, the experimental group, was given a sixteen hours training course on certain reading strategies while a second group of twenty one students (matched for background characteristics), the control group, was given a parallel course that did not include explicit strategy instruction. Quantitative comparisons were made. Students were given reading tests at the beginning and at the end of the training course. They also answered a questionnaire about their use of reading strategies. The results indicated that the application of these strategies was successful as even the lowest ranking student of the training group had a better performance than the majority of students in the control group. I consider that this research extends a research tradition and it contributes to the existing literature because most of the previous studies were done in other countries and/or different contexts.

CHAPTER 1. Introduction

Most of the universities in Mexico and all around the world aim to provide qualified professionals with the necessary competence to perform successfully in the area of their preparation. Currently, basic education is including English as part of the curriculum from preschool to elementary education. There is a necessity in the country to learn a second language in order to get better job opportunities nationally and internationally. Even when students are conscious of the advantages of knowing a language, many consider this subject only as compulsory, and nothing more. At this time, they really need to improve their English: they need to read literature related to their field of expertise while they are in their major and it is indisputable that most of the specialized literature is in English; they also need the language after graduating for continuing their education. It is also indisputable that a large percentage of the research production in the world is in English and furthermore, many students who finish their major continue studying their master's degree, and for this it is necessary in most cases to have a working knowledge of English. Learning English is necessary for students and they must consider it as a fundamental part of their preparation.

Reading is a multifaceted process that develops only with practice. There are certain aspects of reading, such as fluency and word recognition which, depending on the learner's competence, can take some time to be developed. These basics must be mastered but at the same time reading comprehension should be emphasized in the process. This means reading ability is really important, specifically for university students who will need this ability in their studies and in their future professional development or postgrad studies.

It is generally known, that most of the time students use many different strategies that help them improve pronunciation, grammar, writing, reading, and listening during their English language learning process.

Researchers have been studying the way students learn a language; specifically, what strategies language learners use while they are learning; this type of study has now been formalized as the study of language learning strategies (LLS). Oxford (1990) found that students who learn with ease are those who use a wide variety of learning strategies. Studies of Good

Language Learners (GLL) started when research focused on identifying what students do when learning and the characteristics that made them have good results. The purpose of most research was to find the strategies that good learners used. Therefore, teacher would know how to facilitate the language learning process to the students who found it difficult to learn a foreign language. Shen & Wu (2009) found that efficient readers can extract from what they are reading what is important for the particular task they are involved in, and they can do this in an efficient way. Educational researchers have also found a strong correlation between reading and vocabulary knowledge. Students who have a large vocabulary are usually good readers. Chamot et al. (1999) stated that those learners who are conscious of their own strategies are more able to manipulate their own learning and thus, increase the possibilities in succeeding as language learners.

Based on my experience as a language teacher, when students are in the classroom, their “learning” is reduced to coming to class, trying to memorize the vocabulary, taking the exam and passing the subject.

The world in which students will live and work, is clearly different from the ones in which their parents and teachers grew up. Economy, technology and many social changes are transforming the world that is more interconnected and interdependent. Globalization is triggering new concerns and demands a new kind of graduate. At the dawn of the 21st century we are recasting our understanding of economics, communication, security, cultural identity, citizenship, and the environment. There is an increasing call for a more powerful and relevant learning in response to these new demands and opportunities (Gardner, 2007; Reimers, 2009; Stewart, 2007).

Students need to be prepared to be global citizens capable of understanding an ever increasing number of scientific texts that are published in English. They need to learn to acquire knowledge and develop skills and competences. Additionally, they have to develop higher order thinking skills, such as critical thinking, considered necessary for succeeding in the 21st century.

In the United States, the commission on reading in the national council of teachers of English (2008) stated that reading strategies have a purpose and represent cognitive actions that students resort to when they are reading in order to create and retain meaning. For the commission, reading successfully goes well beyond fluency and word recognition and depends heavily upon understanding the text. Since reading is a meaning-making task, any action used to

enhance student understanding helps to create more effective readers. Also, according to the commission, reading strategies are often categorized as those behaviors designed to help students before, during, and after they read. As stated by Zhang and Wu:

Cognitive awareness in reading is described as conscious awareness of readers about strategic reading process and using strategies truly while understanding reading strategies repertory and high level text.

(Zhang and Wu, 2009, p.38)

One of the purposes of this investigation was to introduce and measure the effectiveness of a training approach to the teaching of reading strategies through the use of texts related to students' major. With this, students would be aware of the strategies they can use when reading and use them according to their purpose of reading. The most efficient way to enhance learner awareness is to provide strategy training— explicit instruction in how to apply language learning strategies— as part of the foreign language curriculum (Cohen, 2003; Carrell, 1996; Cohen, 1998; Ellis and Sinclair, 1989). As cited in Chen (2005, p. 5), they all agree that “teaching explicitly how, when, and why to apply language learning and language use strategies will enhance students' efforts to reach language program goals”.

The study was carried out with a specific group of medicine and nursing major students who were taking pre-intermediate English at the University of Quintana Roo in the school of medicine. These types of groups are more homogeneous because they are formed mainly by students of medicine or nursing where the vocabulary used by these professionals is more specific than in the case of some other careers. Conversely, the groups in the Chetumal campus can have students from 5 or 6 different specialties, making it more difficult to concentrate on specialty field related vocabulary. In this study, participants from the medicine and nursing major focused on texts related to their career to prove the importance of using academic material related to students' interests.

On the whole, reading can become an easier and useful skill for students; also it can have an important role in the learning process of the English language. Furthermore, it is a key component for understanding written language. At the same time, the application of reading strategies may help students to transform reading into an efficient tool that they can use according to the way they are taught and the reason for that.

1.1 Statement of the Problem

Nowadays, English has become a basic tool to face the challenges of globalization. Therefore, in order to provide students with a more complete formation that increases their job opportunities, the University of Quintana Roo included English as part of the compulsory curriculum. At this University, it is now mandatory for all the students from the different majors to take four English courses (introductory, basic, pre-intermediate and intermediate). Since 2007 the English courses subjects have become general subjects that must be passed by all the students across different majors.

Throughout these courses, students have to develop different language skills: speaking, listening, reading, and writing, as well as use of English. Therefore, it is necessary to provide the students with situations that allow them to develop and progress in all the skills in order to enhance more efficient language learning. In this study, the focus of the research is on the reading skill.

Up to now, the reading skill in our EFL classes has not been very well developed as the reading texts that appear in the textbooks have generally been used to introduce either the grammar or the vocabulary needed in the lesson. They have not focused on developing students' reading skills. One of the main problems encountered at the University of Quintana Roo is the students' lack of awareness of different reading strategies.

The aim of this study was to introduce and measure the effectiveness of teaching reading strategies by using texts related to the students' major. This means that students could enhance the reading skills with the help of these strategies. While some students do better in learning a foreign language, many students do not gain their desired level of proficiency due to internal and external variables from the learning environment, for instance: personality, language aptitude, interest, study habits, motivation, learning styles, and previous experiences in learning a foreign language. Some authors, such as Nunan (1999), define those internal variables as social affective factors.

In the classroom context, the perceptions, beliefs, attitudes, and metacognitive knowledge that students bring to the learning situation have been recognized as a significant contributory factor in the learning process and ultimate success (Bree, 2001). Nevertheless, if students do not

know the usefulness of applying these strategies, how to learn them and when to use them when reading, they will continue having this lack of awareness of their language skill.

Reading is a skill that represents an area evaluated by the English courses that are required for all students at the University of Quintana Roo. It is a component of midterm and final exams that students constantly undergo; therefore, this is a skill that must be taught. It can be inferred that the students having constant training will inevitably have a positive performance at the moment of facing these evaluations. Chamot (2005, p.123) concluded that

Explicit instruction is far more effective than simply asking students to use one or more strategies and also, fosters metacognition, students' ability to understand their own thinking and learning process.

Students' expertise at the moment of taking an exam is the result of several factors converging in a precise moment of execution. However, there are students that get high grades on exams at this University and still do not have these reading skills. Perhaps this could be due to the design of the exam or to other factors. Social factors such as needing to read in order to get information, peer pressure, willingness to do it, time available at home to do such activity (even in Spanish) or the way they invest their free time might have an effect on the students' reading performance.

Another important factor to be taken into consideration is the students' academic background: the way they have been taught in previous academic levels in Spanish has an influence on certain features of their reading skill. Maybe when students read, it seems that there is not too much awareness of the different reading strategies and there does not seem to be an efficient outcome in the use of this skill. This could be because learners have not been taught these skills in Spanish or are not able to transfer them into L2 learning.

Sometimes when a student is asked to complete a task, he already knows the "what" and "how" to carry out this task. During practice time, the student is allowed to interact with new knowledge and mistakes are expected to occur. The teacher becomes a guide that enables them to solve the problem or the task with tools. This guided practice does not mean that it is a mere presentation of the tools, but an explanation of how to use them effectively in the appropriate context.

Reading is not the exception to this rule. Unfortunately, many students are not receiving the assistance they need to become successful (Lynn and Twigg, 2010). In order to teach more

effectively, teachers should employ teaching strategies for reading, not simply asking the student to read, because some have not developed reading proficiency in Spanish. “In reading classes we sometimes have a confusion of aims: often the students are not being taught reading and how to develop reading abilities per se and no real interaction takes place between writer and reader as the artificiality of the text means that no real message is being communicated”. (McDonough and Shaw, 2003, p. 91). It becomes necessary; then, that students have reading strategies with contents that are familiar to them. Having knowledge of such content will enable students to use metacognitive, which make reading understanding more effective.

Based on O'Malley and Chamot (1995) language learners will use whatever metacognitive, cognitive or social/affective strategies they possess to attend to the language-learning activity. However, whereas experienced language learners can approach language-learning problems in a systematic way and are usually successful in selecting appropriate strategies to complete a language-learning task (activity), novice students may be less efficient at selecting and using strategies.

Regardless of language learning experiences, both groups of learners will need instruction in 'how' to use strategies efficiently as a way of improving language learning and performance (Wenden, 1987; O'Malley and Chamot, 1995; Cohen, 1998). Research on strategy instruction has also investigated the instructional sequences used by language teachers to implement strategy instruction into foreign language lessons. One of the research interests of Chamot et al. (1988) was to discover how three regular classroom teachers actually integrated strategy instruction into their Spanish and Russian foreign language class activities.

The results showed that although “each participating instructor had an individual way of providing learning strategy instruction” (O'Malley and Chamot, 1995, p. 183), all three instructors opted for direct instruction (informing students of the purpose and value of strategies) and followed a structured sequence of introducing, practicing, reinforcing and evaluating strategy use in each language activity. Both, students and teachers should be conscious of the problems the students may face when learning the foreign language and this includes the ones related to the reading strategies.

According to Bialystok (1983), Gagne (1985), Sano (1999), Johnson (1999), and Dadour (1996), language learning strategies are 'teachable' and training language learners to use selected learning strategies can have positive effects on task performance and the language learning

process. According to these authors, the teacher can teach ways to improve their reading if they become aware of the most adequate strategies for the students, what would help them improve their language learning process. Even though, all language skills complement each other, students need a more specific assistance to improve them equally. Reading is the skill that students have trouble because it receives less attention in the classroom. Thus, reading is the skill that needs to be looked at more specifically, as it is an important and relevant skill at the time of learning and acquiring a language. This falls into the benefits of becoming a better reader. Consequently, this study has the following objectives.

1.2 Objective

The objective of this study was to introduce and measure the effectiveness of teaching reading strategies by using texts related to the students' major. This experiment will have a significant impact on the development of reading comprehension performance on the part of the student who will read more efficiently when they are dealing with familiar topics.

With this study we hope to demonstrate the importance of using reading strategies and texts related to students' major in order to enhance their learning. Also, this may provide the opportunity for students' involvement in their development of reading in English. In order to reach these objectives, the following hypothesis was established:

1.3 Research Hypothesis

H1 Medicine and nursing students enrolled in pre-intermediate English language classes at the University of Quintana Roo, who undergo reading strategy training perform significantly better in their reading skill when using health-science related texts than those participants who do not.

1.4 Rationale

Students at the University of Quintana Roo do not generally develop reading for academic purposes in their EFL courses. EFL classes are focused on using textbooks for the learning of the target language as a whole and the textbooks do not provide with any provisions for learning to read for academic purposes. Having in mind that reading is a basic tool for university students, they need to improve reading skills as this constitutes one of the principal means for finding information. For this reason, the development of reading strategies represents an important tool to develop their reading skills.

Students of future generations of the Language Teaching Centre (CEI. Spanish acronym), at the University of Quintana Roo will benefit directly from this research. The English Language Teaching programs may also benefit from the information provided in this study. Finally, researchers at an international level can use this study for individual, specific or institutional purposes in their area, or to develop studies and projects related to the matter.

This study will be of great advantage for many people. It will enhance students' use of strategies that are more appropriate for their needs and according to their interests. It will help students to become more aware of their needs and the reading strategies used for learning and, finally, it could possibly suggest a trend for English for Academic Purposes (hereafter EAP) courses in the medicine and nursing majors.

1.5 Limitations and Delimitations of the Study

This quantitative research was carried out at the University of Quintana Roo, Campus Chetumal. The external restrictions that this research may encounter lay on the availability of medicine and nursing students. This restriction was avoided by means of prompt organization and control of the group that was part of the intervention, it was expected that most of the students were from the medicine and nursing majors. However, another limitation of this study was that the data

collected represents only those students who were involved in the experiment. Therefore, the results cannot be generalized to students from the rest of the university because of the differences among the population. Consequently, further research is necessary.

CHAPTER 2 Literature Review

This section presents the theoretical studies related to the topic researched: concepts related to reading; importance of reading, students' reading interests, the use of reading strategies by students when learning a language and the use of reading strategies in EAP.

2.1 Students' Interests on Reading in English

Considering the students who read, most of the time there are many factors that determine the materials they read, the reasons why they read, and the obstacles they face when reading. Perhaps students have many different reading interests: some may like to read stories, adventure books, magazines about science, technology, sports, newspapers, novels, etc. Sometimes students are not accustomed to go to the library unless they are given a special task to perform there. The student's reading purposes in relation to the ones outlined below may vary, some can be similar or different.

William (1984) usefully classifies reading into; getting general information from the text, getting specific information from a text and for pleasure or for interest. Rivers and Temperley (1978, p. 187) list the following examples of some of the reasons why L2 students may need or want to read.

- To obtain information for a determined purpose or being curious about a topic.
- To obtain instructions on how to perform a task for our work or daily life.
- To keep in touch with friends by correspondence or to understand business letters.
- To know when or where something will take place or what is available.
- To know what is happening or has happened (as reported in newspapers, magazines, and reports).
- For enjoyment or excitement.

Also, the internet has provided us with immediate and convenient access to an extraordinary range of ideas and information. Access to the Internet would then provide the opportunity for everyone anywhere in the world to obtain a great deal of information on any subject that they choose, including a wide variety of texts. Nevertheless, texts of any kind, available through electronic systems, are only as useful as they are accurate.

Based on the 2012 study done by the Programme for International Student Assessment (PISA) 41% of students in Mexico were low performers in reading. PISA defines “low performers” as those 15 year-old students who score below level 2 on the PISA mathematics, reading and science assessments. However, some students believe that there are better things to do than reading for getting information or for enjoyment; together with the difficulty of reading by lack of practice and the poor importance given to reading.

The U.S. department of education (2005) suggests that reading is the path to success in school and life. Someone who is not able to read will not be able to succeed. Therefore, reading is viewed as a highly valued skill to get ahead in the world today. Reading is useful in all careers; the ability to read, reflect and critique is essential to many kinds of work as is the ability to construct and defend an argument. The US department of education (2005) also stated that reading is one of the means to gain access to all the knowledge in this world. Nowadays, we are living in a largely literate society; we are surrounded by thousands of publications covering almost all aspects of our lives; for example: newspapers, magazines, comics, scientific materials, short stories, and novels, about many different things, all these sources are commonly used to get specific information, or to acquire knowledge.

By understanding students’ interest in reading materials in English, and the factors that lead to have high or low reading interest will assist teachers to address students’ reading needs more efficiently. Moreover, this may arise students’ achievement in reading. The importance of identifying students’ reading interests in a second language could influence students’ reading achievement in English classes. Reading motivation consists of internal and external processes that direct individuals to reading (Wang and Guthrie, 2004). Most of the researchers show that success in reading is closely correlated to the attitude towards reading (Guthrie and Wigflied, 2000; Wigflied and Asher, 2002; Morgan and Fuchs, 2007). According to Carrell et al. (1998, p.431).

Metacognitive strategies in reading may include establishing objectives in reading, evaluating reading materials, repairing miss-comprehension, evaluating the ongoing understanding of the text, analyzing the text and paragraph structure to clarify the author's intention, adjusting reading speed and selective cognitive strategies accordingly, and engaging in self-questioning to determine if the objectives have been reached.

In Flavell's words (1979) reading is both a metacognitive and a cognitive process. Cognitive strategies refer to conscious actions that readers take to understand texts. Metacognitive strategies monitor and regulate mechanisms that readers intentionally use to increase comprehension. On a general level, metacognition includes awareness and control of planning, monitoring, repairing, revising, summarizing, and evaluating. Essentially, we learn awareness of our comprehension processing. More specifically, we learn strategies that support our comprehension (our awareness of strategies) and we learn how to carry out these strategies effectively (our control of strategies) (Baker, 2008; Pressley, 2002).

Most of the time students do not consider the importance of reading skills in their personal and professional life. Moreover, it seems that some of them do not consider the adverse effects of poor reading skills. But according to the International Reading Association (Moore et al., 1999, p.3).

Adolescents entering the adult world in the 21st century will read and write more than at any other time in human history. They will need advanced levels of literacy to perform their jobs, run their households, act as citizens, and conduct their personal lives. They will need literacy to cope with the flood of information they will find everywhere they turn. They will need literacy to feed their imagination so they can create the world of the future. In a complex and sometimes even dangerous world, their ability to read can be crucial.

The majority of the texts regarding the newest innovations, products, magazines, or the latest marketing ideas are presented in English and they may need to read in this language because it is an international language. As it was mentioned by Thirumalai (2002), English is spoken in many countries both as native and as a second or foreign language. It is taught in the schools in almost every country on this earth. It is a living and vibrant language spoken by over 300 million people as their native language. Millions more speak it as an additional language.

Most of the time, university EFL students need to read textbooks, articles, or magazines written in English, in order to acquire knowledge and gather information for both their careers and their academic studies. Sometimes they have to read business reports and other unfamiliar

topics making reading a problem rather than a pleasure. And when there is no comprehension, reading is simply following words on a page from left to right while sounding them out. The words on the page have no meaning. As Lipson and Cooper (2002) mentioned, when people read unfamiliar text, they read more slowly, they remember less, they construct meanings that are inconsistent with the author's, and they sometimes reject the text information outright. While students read for many different reasons, the main goal is to derive some understanding of what the writer is trying to convey and to make use of that information.

In many instances around the world we may argue that reading is the most important foreign language skill, particularly in cases where students have to read English material for their own specialist subject.

(McDonough and Shaw, 2003, p.143)

“Even if reading is done for pleasure it is still purposeful” (McDonough and Shaw, 2003, p.89). The use of reading strategies can develop and enhance students' reading interest. Based on the commission on reading of the national council of teachers of English in the U.S.A (2008) reading is a complex and purposeful sociocultural, cognitive, and linguistics processes in which readers simultaneously use their knowledge of spoken and written language, their knowledge of the topic of the text, and their knowledge of their culture to construct meaning with text. Each of these types of knowledge impacts the sense that readers construct through print. Readers easily comprehend text with familiar language but are less successful at comprehending text with unfamiliar topics. At the same time, the interpretation readers construct with texts as well as the type of texts they read are influenced by their life experiences.

Reading is an ability that should be learned. For some students, the process of learning to read can be enjoyable and easy, but displeasing and complicated for others. Likewise, some students may find reading as an opportunity to learn something new, while many more students tend to escape from reading because they cannot understand what they read. “Strategic reading reflects metacognition and motivation because readers need to know the strategies and be willing to use them” (Kolic-Vehovec and Bajanski, 2006, p. 440).

It is very important to include reading strategy training on a systematic basis in EFL instruction. On one hand, by making the text relevant for students in some way, it may increase their interest in reading it. On the other hand when, learners are presented with overfamiliar material that does not focus on what they can bring to the text, or the content is inconsequently

for them (McDonough and Shaw; 2003). By taking into account students' knowledge related to the content of the text, they could relate what they already know about the topic with the new information given.

Harmer (2000) stated that teachers should keep in mind the following principles while teaching reading: 1) Reading is not a passive skill. Teachers need to provide opportunities for students to understand the text through activities and teaching materials. 2) Students need to engage with what they are reading: working together while reading, participating and discussing are very important. 3) Students must be encouraged to respond to the content of a reading text, not just to language. 4) Prediction is a major factor in reading: before reading, students should participate in predicting or questioning and reflecting about the text, which can help students to become aware of the reading text content and meaning. 5) Teachers should match the task to the topic and 6) the teacher's role in encouraging students to explore reading to the maximum is necessary. Furthermore, teachers should select his or her own textbook based on the usefulness of the book for his or her students, and their interests (Thirumalai, 2002).

Many authors (e.g. Campione, 1987; Cohen, 1988; Kaufman et al., 1985) suggest that the more learners pay attention to the meaning of the language they hear or read, the more successful they will be. A common assumption we have as teachers is that our students read because they have to read, and not because they want to. Students identify reading as a task that they have to do in order to succeed academically.

Furthermore, it seems that students are busy with extracurricular activities and they also have other personal complications, leaving no time for reading. It has also been found that university students spend a significant amount of time on reading newspapers, academic books, and websites due to the demands for doing assignments, instead of reading for pleasure (Shariza and Amelia, 2007). It is popularly believed that when readers read to get information, they indirectly improve their reading skills. This is supported by Eskey (2002) who stated that by reading, one learns to read and becomes better at reading. According to this, students who read extensively can become efficient readers as they are exposed to new words. Vocabulary development involves coming to understand unfamiliar words and being able to use them appropriately. It is a huge challenge for students to read words that are not already part of their oral vocabulary. The Report of the National Reading Panel (2000), for example, concluded that,

the importance of vocabulary knowledge has long been recognized in the development of reading skills.

2.2 Importance of Developing Strategies to Enhance Reading Ability

Currently, reading is fundamental to function; we are compelled to read signs, prescriptions, instructions, recipes, messages, etc. However, our Mexican society is not characterized for its readers. As a whole, we do not often read books, magazines or newspapers. Many of our students cannot read well enough to even understand simple instructions. Even in higher education, in many cases, reading is done when compelled and in order to comply with the requirements of the courses.

The early experience ESL students encounter when reading second language materials could determine their attitudes towards reading (Marrero, 2009). According to Mc Kool (2007), reading interest is defined as readings done when students are outside the school campus. Furthermore, the US department of education (2005) defined reading interests as whether or not students like to read in their free time or at home, or whether they like to go to the library. Also, reading interest is also defined by the number of books read in a period of time (months), the number of times students read in a week, and the favorite genres and types of English reading materials. In addition, other researchers have also revealed that reading interest has been linked and related to vocabulary development, comprehension, fluency, as well as general intellectual development (Stanovich, 1986; Fielding and Wilson, 1988; Taylor, Frye and Maruyama, 1990; Guthrie and Wigfield, 2000).

UNESCO (1983) suggested that students who do not like to read at an early stage would very likely fail to adopt a reading habit as they grow older. Consequently, reading interest is also linked to academic success, as students who love to read will be able to write well and have more ideas which will make them more creative and innovative (Grabe, 2003; Stansberry, 2009). If students have little or no interest in reading they may not be able to force themselves to read for academic purposes, let alone to read for pleasure.

Noor (2011) claims that in any higher education learning environment, reading is valued as the most important academic language skill for all second and foreign language learners. Students learn new information and become more competent in their subject matters through reading. For university students, it is useful to get a wide variety of strategies in order to succeed in their career. Loan (2009), moreover, stresses the importance of reading by claiming that “individuals with good reading habits have the chance to widen their mental horizons and to multiply their opportunities.” Reading is part of the students’ development in the major they choose; for instance they have to find information, write summaries about specific texts, analyze or criticize an author, expressing their opinions on a topic, etc. All of these are dependent on reading.

A good and efficient reading develops our minds, enhances our vocabulary, and makes us more aware of the world around us. It is essential in finding a good job, and above all, in the case of our students, is vital for autonomous learning, and essential for continuous education. These two characteristics are necessary to every higher education student.

One way to accelerate standard academic language learning for all students is to teach them how to learn effectively and efficiently. Learning strategies are techniques for understanding remembering, using information and skills. Learning strategies are particularly important for students seeking to master both academic language and academic content simultaneously (Chamot, 2005). It cannot be disputed that a person is limited in what he can accomplish without good reading and comprehension skills.

2.3 Strategies used by Students in Developing their Language Learning

The term strategy has different definitions. It can be defined as actions, plans, skills, techniques and devices. These concepts of strategy can be traced back to the seventies. Rubin (1975) defined strategies as the techniques or devices which a learner may use to acquire knowledge. Also, and more specifically, Rigney (1978) defined a learning strategy as a cognitive strategy which is used to signify operations and procedures that the student may use to acquire, retain, and retrieve different kinds of knowledge and performance.

O’Malley et al. (1985, p.175) define learning strategies as “a set of operations, steps, plans, routines used by the learner to facilitate the obtaining, storage, retrieval and use of

information”. Moreover, Ellis (1988, p. 128) establishes strategies as “plans for controlling the order in which a sequence of operations is to be performed”. These authors agreed that strategies are all the actions and plans that learners implement to learn something. Weinstein and Mayer (1986, P.97) proposed learning strategies as “behaviors and thoughts that a learner engages in during learning and that are intended to influence the learner’s encoding process”.

Schemeck (1988, p.137) stated that a strategy is “the implementation of a set of procedures (tactics) for accomplishing something” and learning strategies “a sequence of procedures for accomplishing learning”. For Oxford and Crookall (1989, p. 82) “strategies are referred to as learning techniques, behaviors, or actions; or learning to learn, problem-solving, or study skills”. Marin and Mendez (2007, p. 104) state that:

Strategies are used to promote, facilitate, enhance, and regulate learning, to acquire knowledge, to comprehend, recall and retain information. In this way strategies can contribute to better learning both directly and indirectly.

Consequently, the kinds of strategies the students use are very important for achievement in their learning process. According to Macaro, (2004) learning strategies are defined as a mental process, conscious or semiconscious thoughts, behaviors and mental actions used when dealing with language information by students with the explicit goal of improving their knowledge and understanding of the language.

A number of models for teaching learning strategies in both first and second language contexts have been developed (Chamot et al., 1999; Cohen, 1998; Graham and Harris, 2003; Grenfell and Harris, 1999; Harris, 2003; O’ Malley and Chamot, 1990; Oxford, 1990; Pressley et al., 1992). These instructional models share many features. All agree on the importance of developing students’ metacognitive understanding of the value of learning strategies and suggest that this is facilitated through teacher demonstration and modeling.

Regarding reading strategies, McDonough and Shaw (2003) mentioned that it is generally recognized now that the efficient reader verse in ways of interacting with various types of texts is flexible, and chooses appropriate reading strategies depending on the particular text in question. These authors suggest that students should evaluate how well a strategy has worked, choose strategies for a task, and actively transfer strategies to new tasks. They also, emphasize the importance of providing multiple practice opportunities with the strategies so that students can use them autonomously.

Jacobs (1999) divided reading strategies into pre reading activities, guided reading and post reading, including the particular strategies in each of these phases or stages of reading. For the purpose of this study the classification of the strategies that will be used are the same as the ones the author considered:

Pre-reading activities are aimed to activate existing schemata, build new schemata, and provide information to the teacher about what the students know. In their report on the positive effect various pre-reading activities had on reading comprehension, Chen and Graves (1995, p. 664), define them as “devices for bridging the gap between the text’s content and the reader’s schemata”. Pre reading strategies prepare the students to get ready by activating background knowledge, and engaging the learners in questioning and predicting. They provide teachers with opportunities to assess what students already know and assist them by teaching what they need to know to be successful in reading the text that will follow. It often includes mini-lessons on skills or strategies that may be helpful to the students to successfully read the selection.

During reading activities may include reading aloud (sometimes called whisper reading), reading silently, reading to answer questions or for information, and opportunities to discuss comprehension or word difficulties as they arise. These conversations may also lead to the “teachable moment” as students reveal their understanding or confusion about print or meaning.

Barnett (1988) states that post-reading exercises first check students’ comprehension, and then lead students to a deeper analysis of the text. After reading activities include discussion of the material on a cognitive or affective level, this requires students to explain their positions using the text, prior experience, or both. Follow-up lessons often include specific target skills or strategies lessons based on the text. These may focus on the content and the application of phonics, specific comprehension skills, fluency practice, and/or writing extension and applications of the newly explored skills and strategies.

All of these activities provide opportunities for collaboration and construction of meaning and understanding. They also align with the three underlying constructivist concepts upon which the two step model published by Flynn, Mesibov, Vermette, and Smith (2004) are based. Identifying the strategies students use to learn the language and knowing which are the ones students use to facilitate the learning process definitely helps. Also, it is crucial to recognize and understand the importance and the necessity of these studies in order to help both teachers and students in the improvement of the teaching-learning process.

Studies in the acquisition of a second language emerge from two principal aspects: the process of the acquisition of a second language and the personal factors that influence students during this process. The first studies in the area were focused on describing how this process occurs and how students' personal factors were an influence in the level of competence they achieved (Larsen-Freeman, 2000). Some students are more successful than others when learning English as a foreign language. Some students have specific or different learning behaviors when learning the English language, but all of them develop and learn the language using different learning strategies. The reasons why students differ in their improvement in learning English have been explained in different ways, one being the strategies students use to learn the language.

According to Jordan (2002), the raising of students' self-awareness (of their learning style and methods) helps them to consider factors which may affect their language learning, and to enable them to become more effective and independent learners of English. In terms of the reading strategies, The Center for the Improvement of Early Reading Achievement (CIERA) states that students should learn to read initially in their first language. If this is not possible, students need to see literally hundreds of books over a school year so that fluency is modeled to them. CIERA recommends that students participate in the read-aloud of big books, read along with proficient readers, and listen repeatedly to books read aloud in order to gain fluency in English (Hiebert et al., 1998).

On one hand, it is necessary that all the university students increase knowledge through reading because reading is a fundamental and critical skill for students to achieve academic success. On the other hand, it seems that students in the English classes are not provided with reading materials which can be related to their current major. Apparently most of the time students do not have the reading strategies, and if they have them, often the use of these reading strategies is done unconsciously. For second (ESL) or foreign language (EFL) learners, reading is an even more complex process because they usually do not have enough language background and knowledge that they can bring to the task of acquiring literacy as do first language learners.

Therefore, reading comprehension strategies must be taught directly to expose how reading tasks can be accomplished by a proficient reader. A well-planned comprehension strategy for instruction that involves directly teaching reading strategies is especially recommended for second or foreign language readers (Ediger, 2001). Numerous studies on

learning strategies maintain that teaching strategies can facilitate students reading comprehension (Cohen, 1998; Chamot, 1999).

Students' reading ability could be constructed through the help of the teachers because they can stimulate students to use more reading strategies to deal with more challenging English texts. Teachers should also have the responsibility of making students identify the processes they can use to improve their reading skill. By showing awareness of reading comprehension strategies, teachers may help students to read well. Larsen-Freeman (2000) mentions that language teachers have thoughts about their subject matter regarding the definition of language culture, and about their students, such as who they are as learners and how they learn. In terms of reading strategies, it is very important for teachers to become aware of what they can do to guide actions in the classroom. With this awareness, teachers will be able to examine the strategies they can provide their students in order to improve their efficiency in reading. Furthermore, several studies carried out in Asia indicate that the training in reading strategies could enhance reading proficiency (Song, 2003; Shang, 2007). According to the International Reading Association, reading is a complex process (Braunger and Lewis, 1998). The National Association for the Education of Young Children agrees, stating that "learning to read and write is a complex and multifaceted process that requires a wide variety of instructional practices" (Neuman, Copple, and Bredekamp, 2000, p. 14).

It is very important to identify the reading strategies students from the University of Quintana Roo, use to read when they are learning a second language, if they are aware of these actions, or if they use them unconsciously because "The greatest need of students is the ability to read textbooks. In most EFL university situations, reading academic texts will be the biggest requirement for students" (Jordan 1997, p.50).

2.4 Strategies Used to Develop the Reading Ability

The study by Oxford et al. (1990) explored the effects of strategy training in various international settings. Oxford and her five colleagues investigated the effects of strategy training on students learning Hebrew in Israel, students learning Danish in Denmark, students learning Spanish in the U.S, and students learning English in France. The six researchers reported that their strategy training generally yield with the learners' needs in mind- can be a key element in creative, self-directed language learning.

According to Snow (2002, p.11), "comprehension is the process of simultaneous extracting and constructing meaning through interaction and involvement with written language". Also, Kolic-Vehovec and Bajanski (2006) consider that while some parts of comprehension are automatic, others are complex and thoughtfully executed mental processes. Strategy instruction can help facilitate the comprehension process for students.

Explicit strategy instruction refers to "[...] the purposive activities of a teacher to make children fully aware of the active character of the reading process and of the importance of comprehension-fostering and monitoring activities" (Van Keer, 2004, p. 38). Pressley (2002) found that the entire comprehension process rests on the ability to be an active, metacognitive reader before, during, and after reading. This allows readers to select from a number of different comprehension strategies during interaction with text.

Ehrman and Oxford (1995) studied 262 English native speakers' government employees studying different foreign languages at the U.S. Foreign Service Institute. They found that the most frequently used strategies were in the compensation category followed by the social and cognitive, metacognitive, memory and affective strategies. Only compensation strategies were associated (weakly) with proficiency.

It is expected that university students that do not have complete control of the grammar or an extensive lexicon, can deal with a communicative situations. Many researches have confirmed that reading strategies play a vital role in English reading processes and have a crucial influence on reading results.

In relation to developing reading, most of the earliest research was dedicated to the study of first language reading skills from which there issued many serious papers dedicated to the

“good” or the “efficient” readers. Second language reading skills began more systematically studied in the seventies. From these early studies, the concept of the bottom up view of second language reading emerged, in which “the reader constructed meaning going from letters and words to larger units: phrases and sentences” (Marin & Mendez 2007, p. 104).

There are many different reading strategies students can use to improve their efficiency in reading. These strategies are sets of steps that good readers use to make sense of text. Some studies related to the aim of this research are presented in the following paragraphs. Zhang’s (2001) study carried out in the people’s republic of China explored the types of metacognitive knowledge of reading strategy use that Chinese EFL learners at different proficiency levels have while learning to read EFL. Ten Chinese EFL university participants were divided into two groups: five high EFL scorers and five low EFL scorers according to the proficiency test. A semi structured interview with questions based on Flagel’s (1987) model was used to collect the data about metacognitive strategies. The findings show that both high and low scorer groups revealed the same types of metacognitive reading strategy, but high scorers reported higher frequency use of the strategy than low scorers.

A study of four first year college students from Midlands Technical College in Columbia, enrolled in developmental reading class, were identified as struggling in reading by the Test of Adult Basic Education (TABE). TABE is a pretest given at the beginning of the semester. Throughout the semester, the students had three main assignments that helped in reading comprehension. The assignments were inquiry based research, independent and shared reading events, and indirect instructions of reading comprehension strategies. Throughout the semester, changes in several areas of development occurred in the four students’ reading comprehension strategies.

As they read, they became more critical, focused, and productive. At the end of the semester, the TABE Test was taken again by the students. After using the newly learned reading comprehension strategies, the students all improved their test scores by at least three grade levels (Falk-Ross, 2002).

In the school of arts and sciences at St. John Fisher College in the United States, Ballou (2012) researched on the use of explicit strategy instruction to improve reading comprehension. For the purpose of that study, three students were explicitly taught three during-reading comprehension strategies. Students were given a pre and post-assessment which were analyzed to

determine the effectiveness and implications of explicit strategy instruction. Findings from the study suggest that although students' comprehension scores did not improve, their attitudes toward reading improved and their ability to use a wide variety of strategies increased after receiving explicit strategy instruction.

Yamashita (2002) investigated the contribution of first language (L1) reading ability and second or foreign language (L2) proficiency to L2 reading comprehension, by focusing on the compensation between L1 reading ability and L2 proficiency. Through a questionnaire, two research questions were addressed: (1) does high L1 reading ability compensate for low L2 language proficiency? (2) Does high L2 language proficiency compensate for low L1 reading ability? Participants were 241 Japanese university students learning English as a foreign language. They were divided into three levels (high, middle, low) according to the levels of their L1 reading ability and L2 language proficiency. Results provided positive answers to both research questions. The study demonstrated the mutual compensation between L1 reading ability and L2 proficiency, which works in order to achieve the highest possible level of L2 reading comprehension for readers with different ability backgrounds in L1 reading and L2 proficiency.

All the studies presented had a common goal: to increase the importance of the use of reading strategies, also to provide reading strategies instruction directly or indirectly in order to improve the students' reading ability in English. In most of the studies presented, there was an improvement on the student's reading comprehension, on the use of the reading strategies and on the attitude of the students towards their use of these kinds of strategies.

These studies aimed to find what students do when reading. In the first study presented, the purpose was related to types of metacognitive strategies students use while reading. In the second study, the aim was related to the contribution of the first language to the second one in terms of reading. In the third case, the aim of the study was related to proficiency of the students on the reading process. However, in all of the studies, a questionnaire was used as an instrument to collect data, the results varied according to the students' needs and the purpose of the study. But knowing the students' beliefs of what they actually do when reading is also important to focus the researches on their necessities or weaknesses.

The purpose of this study is to examine the influence of using reading strategies in a textual medium related to the major the students are following. Another purpose is to identify

what strategies these students use. The results may be considered to develop reading ability taking into consideration students' needs.

2.5 Research on University Students' Use of Reading Strategies

Students acquire information about what strategies are, how they are used, why they are important, and when and where they can be used (Chamot and O'Malley, 1987; Ellis & Sinclair, 1989; Oxford, 1999; Rubin and Thompson, 1994).

Malcolm (2009) investigated the reading strategy awareness of Arabic-speaking medical students studying English. Using a questionnaire, the study surveyed 160 students at a medical university in Bahrain. This author found that academic reading strategy is used by readers at different English proficiency levels and years of study.

While all students reported high use of strategies overall, significant differences were found in reported use of metacognitive strategies in general and specific strategies related to translating from English to Arabic. Students of low initial English proficiency and those in their first year reported translating more, while upper year students translated less and used metacognitive strategies more. Compared to previous studies using the same self-report questionnaire, it is clear that reading strategy use was generally higher and more similar to other academic readers in an EFL setting than L1 and L2 readers in a US college.

Maasum and Maarof (2012) aimed to explain the metacognitive reading strategies employed by a group of EFL undergraduates when reading academic texts at a public university. A quantitative research design was used to collect data from a group of 41 respondents with a questionnaire which consists of 30 items that are categorized into 3 components: global reading strategies, problem-solving strategies and support reading strategies. The findings showed that there is a range of moderate to high level of metacognitive strategy use among the undergraduates. The findings showed that the respondents are conscious of their process of constructing meaning from the reading text. They are able to use a wide variety of these reading strategies to achieve comprehension. The studies were done based on a quantitative method. Also both of the studies used questionnaires as their instruments to measure their results.

Similarly, they were focused on the use of metacognitive reading strategies. The results obtained in these studies provided an idea of the kind of reading strategies university student's use when reading.

Also, Iran Saman and Minoos (2010) intended to investigate the effects of pre-reading activities on reading comprehension of L2 learners of science and technology majors. To carry out this research, members of each group were randomly assigned to one of the two experimental and control groups.

Data analysis was conducted through T-test statistical procedures. The findings revealed that better comprehension can be gained through resorting to pre-reading activities. Results of this study revealed that giving prior information through resorting to pre-reading activities might become a useful tool for teachers of ESP to facilitate the learner's reading comprehension ability.

Marzban and Akbarnejad (2013) studied the effect of cooperative reading strategies on improving reading comprehension of Iranian university students. Subjects were 60 male university students in Babol technical center, Iran. They were randomly assigned into two groups: The experimental group using cooperative reading strategies and the control group using a traditional method of instructions. Training was 16 sessions, three hours each session. Statistical results revealed that the experimental group did much better than the control group and consequently cooperative reading strategies were effective on improving reading comprehension of Iranian university students. In these two previous studies the studies were conducted based on an experimental design; both studies had control and experimental groups. It is important to mention that each case was focused on specific reading strategies but their results were similar in terms of facilitating reading comprehension through the use of these strategies.

In Mexico several studies have been developed in recent years. In the state of Quintana Roo there is also some research done. Murrieta (2003) studied the frequency of language learning strategies used by students at the University of Quintana Roo, Chetumal campus. The sample was of 134 students of the English language major of different levels of proficiency (beginners, intermediate and advanced) between 19 to 25 years old. The strategy inventory of language was used in order to identify the strategies used by successful and unsuccessful students as well as the frequency in which these strategies were used.

The findings indicated that students are medium users of language learning strategies. They showed that regular and unsuccessful students use compensations strategies less frequently

and successful students use memory strategies. The strategies used by all the proficiency levels were more social strategies followed by compensation strategies.

Another study done in Quintana Roo at the University of Quintana Roo in 2007 by a group of professors focused on the different language skills, such as reading, writing, listening and speaking and its relations with strategies. Macola (2007) developed reading strategies. She developed training with 15 students in the sixth semester from the English language major, on analyzing the effect of teaching direct learning strategies in enhancing academic reading skills. The strategies that were taught were predicting, skimming, critical reading and summarizing. Before the training students showed low scores on the four strategies mentioned before; after the training students showed improvements and positive attitudes towards the training. Training students on the use of reading strategies addressed a need that has been highlighted by previous studies. For the purpose of this study, students will be in contact with texts related to their major with the inclusion of different reading strategies: pre, while and post reading strategies, in order to help students read more efficiently.

2.6 English For Academic Purposes

According to Tuckman (2003), learning strategies are more important for college students because educational readings at the college level require powerful thinking and more autonomous learning. In addition, according to Grabe and Stoller (2001), educational reading requires developing strategic readers to be aware of their goals in reading and able to administer strategies effectively.

EAP has become a major research field in its own right, responding to the demands of a widening circle of users by providing increasingly sophisticated accounts of academic discourse and translating these insights into pedagogically valid methods and materials. According to Jordan (2002) reading is a skill normally associated with writing. This is a fundamental characteristic of the target academic situation in which students are typically reading books and journals, noting, summarizing, paraphrasing, and then writing essays, etc. In agreement with Jordan (2002), reading for academic purposes is a multifaceted subject. However, there is one fundamental aspect which can be a starting point for other considerations. When students read, it is for a purpose. It is the custom in learning-centered English for academic purpose classes for

teachers to give students a choice of topics to study. Some students ask for texts from subject areas outside their chosen field of study in the hope that such topics, being novel, might be more interesting. It is helpful to consider that in most EFL university situations, reading academic texts will be the biggest requirement for students. Jordan (2002) states that depending on the reading purpose, different reading strategies and skills will be involved; in turn, skills can be divided into sub skills.

Regarding the sub-skills, Hammer (2007) states that the sub-skills are mostly focused on scanning and skimming in reading, organizational and editing skills in writing, recognition of connected speech and understanding gist in listening, and pronunciation and intonation in speaking. In the process of reading, students will be concerned with the subject-content of what they read and the language in which it is expressed. Both aspects involve comprehension, though of different kinds.

Tercanlioglu (2004) conducted a research in a university in the United Kingdom. The aim of the study was to identify how students approached the task of academic reading. Data for this study came from five sources: audio taped interviews of 17 postgraduate students; a demographic questionnaire; the Adult Survey of Reading Attitude (ASRA); a reading efficacy belief instrument; and three texts that measured reading comprehension. Results of the study revealed that: a) ESL students rated anxiety and difficulty highly, whereas, L1 students rated modalities on the ASRA as more important; b) L1 students rated scores on both efficacy items on the reading efficacy belief instrument higher than ESL students; c) interviewees from both groups showed a clear preference for cognitive strategies, followed by metacognitive and support strategies (however, where L1 students reported high and frequent use of metacognitive strategies, ESL students reported more frequent use of support strategies); and d) reading comprehension scores were similar for both groups of students on the instruments used.

Huang (2006) tried to determine what motivates students to engage in EAP reading activities. Three student informants were invited to reflect on their own EAP reading experiences and discuss pedagogical situations in which they were more willing to read. Then, a questionnaire containing 18 statements describing various situations was constructed based on interviews with the student informants and data were collected from 212 college business majors. Descriptive statistics showed that learners were most willing to read under three circumstances: when (1) teachers were available to answer questions, (2) key points were highlighted clearly in textbooks,

and (3) reading skills were taught. Factor analysis results presented three distinct clusters of variables, namely EFL teacher facilitation, reading requirements, and text facilitation. Through learners' indications of why they preferred specific content areas in EAP reading, background schema was also found to be an important factor influencing situational EAP reading motivation.

Jafari (2012) investigated the reading strategies of Iranian ESP students when they read authentic expository texts in English. To this end, 81 male /female university sophomore students studying environmental health, occupational health and safety and midwifery at Shiraz University of medical sciences participated in the study; The Survey of Reading Strategies (SORS) classifies reading into three categories: global, problem solving, and support strategies. The findings demonstrated that the participants are moderately aware of educators' reading strategies and the most frequently used strategies were support strategies, followed by global strategies, and then problem solving strategies. The Iranian ESP students used the reading strategies differently according to their academic majors.

Currently, the importance of context is becoming a significant feature of research in the field of learning strategies. Baker and Boonkit (2013) investigated learning strategies employed by undergraduate students at a Thai university studying EAP reading and writing courses. The research aimed to identify the most frequently used strategies and different strategy use between 'successful' and 'less successful' learners. The results revealed metacognitive, cognitive and compensation as the most frequently used strategies overall. Differences in strategy use for successful and less successful readers and writers were also demonstrated. A number of affective and social strategies were identified in the quantitative analysis which needed further investigation.

Most of the studies presented are related to identifying the reading strategies students use when they read academic texts. In most of the studies, the instruments vary according to the specific purpose of the research. Nevertheless all the findings have significant implications for English for academic purposes learners and teachers. In this regard, Shoery and Mokhtari (2001) stated that strategic awareness and monitoring of the comprehension are important for efficient reading. Cohen (1998) and Macaro (2001) found that teachers can help students better if they know what strategies students are using.

These findings could be useful for later research and could help to increase the number of studies that support reading strategy in different contexts. Also it is important to mention that

most of these previous studies were carried out in EFL contexts, but fewer have been carried out in Mexico. Furthermore, this study will be useful to the CEI center at the UQROO, because this type of teaching should be included with more frequency during the whole course. It is hoped that the correlational findings will help teachers to apply better reading strategies. Also the lack of research on the use of text related to students major makes the development of this present study appropriate.

CHAPTER 3 Theoretical Framework

In the previous chapters, several studies were presented in relation to the use of reading strategies from university students. To complement those studies, this chapter covers theories and concepts closely related to the skill analyzed in this study which is reading. This study focuses on investigating the effects of reading strategy use through the medium of more specific texts related to the major of the students. Some of the theories that helped in the development of this present study are the constructivism theory, the schemata theory and the learning theory. This chapter is divided in those main topics.

The training presented for this study on reading strategies is based on the constructivism theory. Constructivism is recognized as a unique learning theory in itself. However, it may be associated with cognitive psychology because, as a learning theory, it focuses on a learner's ability to mentally construct meaning of his own environment and to “create” his own learning. Furthermore, the schema theory model, states that every new input is mapped against some pre-existing schema and all aspects of this schema must be well-matched with the new input information. And lastly, the learning theory was taken into consideration for the type of research because it states that learners seek to make sense of their surroundings by integrating new knowledge with that which they have already learned.

The theory or theories that support a study are essential because they help to understand, guide and structure the information. Royse (2008) argues that theory often arises out of a 'value' position, and this is apparent within social work research in its attention to anti-oppressive or emancipatory practices.

This chapter is divided into those three aspects of the study, the constructivism theory, the schema theory model and the learning theory. The reason for basing this study on these three aspects is because all of them are involved in the training. This is, each of the theories explained consider reading as a cognitive and active process in which strategies and texts related to students' prior information help them to understand texts. For the purpose of this research, the texts students will read are related to health science. In this way, students will be more familiar with these kinds of texts.

Referring to the constructivism theory, the use of strategies will help students to develop and improve their reading comprehension. The schema theory supports the use of reading strategies and states that through the use of familiar texts for the students they have a better comprehension of the text. And the learning theory, because meaning happens when new information is taken into a person's existing cognitive structure and is related to the previously learned content. Based on this theory students have to form new connections between this new information and the existing information. These three theories complement each other and go hand by hand in this study. In other words, students' reading comprehension will be affected more efficiently when they get accustomed to using reading strategies and read texts related to their major.

3.1 The Reading Ability

We were never born to read. Human beings invented reading only a few thousand years ago. And with this invention, we rearrange the very organization of our brain, which in turn expanded the ways we were able to think, which altered the intellectual evolution of our species.

(Wolf, 2007, p.3)

As it was mentioned before students of this globalized world have to be prepared for different demands presented in reading and writing. Everywhere and at any time, people read from a simple note to an interesting book. "The opportunities that technology offers for access to information are exciting" (Burns and Richards, 2009, p.230).

Nowadays with technology people have access easily to documents that they should or must read as a requirement for a specific subject. Nevertheless, reading is something that most of us take for granted. We read with what appears to be little effort and little planning. And it is remarkable that so much of the world's population can read- a little over 80 percent of the world's population can read to some extent (Elley, 2001; Tucker, 2000; UNESCO, 2007). So, we cannot avoid reading. Nonetheless, in Mexico many people are not accustomed to reading and young people are not the exception. They can read basic forms, read advertisements, read newspapers, and use basic reading skills in their work and daily lives when needed. Only a low

percentage of these people can read at a much higher level of comprehension, learning new conceptual information, synthesizing new information, criticizing information, and using their comprehension skills to reinterpret texts (Elley, 1992; Kirsch et al., 2002; NAAL, 2005; NAEP, 2007).

When people are trying to read a text in a language they do not know very well, they may face some difficulties. For Scrivener (2005) there is a list of some of the reasons people consider reading difficult in a foreign language: Maybe; they do not know enough vocabulary, they need the dictionary all the time. Also it is very slow, it takes ages just to get through a few sentences, they often get to the stage where they understand all the individual words, but the whole thing eludes them completely. Also, because it is slow, the pleasure or interest in the subject matter is soon lost.

It is also important to recognize that many people around the world read in more than one language. Large populations of people have learned to read in second or third languages for a variety of reasons, including: “interaction within and across heterogeneous multilingual countries, large-scale immigration movements, global transportation, advanced education opportunities, and the spread of languages of wider communication” (Grabe, 2008, p.58).

Reading is normally linked to writing. This is a fundamental characteristic of the target academic situation in which students are typically reading books and journals, taking notes, summarizing, paraphrasing, and then writing essays, etc. When students read, it is for a purpose: clearly, students can have different purposes in their reading; these will include: To obtain information (facts and data), to understand ideas or theories, to discover author’s viewpoints, to seek evidence for their own point of view (and to quote) all which may be needed for writing essays.

In the process of reading, students will be concerned in what they read and the language in which it is presented. Both aspects involve comprehension, though of different kind. Depending on the reading purpose, different reading strategies and skills will be involved (Jordan, 2000). Comprehension is “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (Snow, 2002, p.11).

Strategy instruction can help facilitate the comprehension process for students. Pilonieta (2010, p. 203) defines comprehension strategies as “conscious, deliberate, and flexible plans readers use and adjust with a variety of texts to accomplish specific goals”. Essentially,

comprehension instruction involves not only teaching children what a particular strategy involves, but also, why, where and when to use it (Van Keer, 2004).

According to Grade and Stoller (2002) reading is always purposeful, not only in the sense that readers read in different ways based on different reading purposes, but also in the sense that any motivation to read a given text is triggered by some individual purpose or task, whether imposed internally or externally. Reading is also a process of understanding. This notion is both obvious and subtle. It is obvious that any person could say that understanding a text is the purpose for reading; it is less obvious with respect to the ways that such understanding might be carried out by the reader. One outcome of reading being a purposeful and comprehensible process is that it is also a learning process.

This aspect of reading should be evident to anyone who works in academic settings where the most common way for students to learn new information is through reading. Grade and Stoller (2002) state that in those academic and professional contexts in which a person needs to learn a considerable amount of information from a text. There is a need for ability in order to: remember main ideas as well as a number of details that elaborate the main and supporting ideas in the text and link the text to the reader's knowledge base.

Based on Jordan (2000) some of the main strategies, skills and subskills developed in reading are the following: prediction, skimming (reading quickly for the main idea or gist), scanning (reading quickly for a specific piece of information), distinguishing between: factual and non-factual information, important and less important items, relevant and irrelevant information, explicit and implicit information, Ideas and examples and opinions, drawing inferences and conclusions, deducing unknown words, understanding graphic presentation (data, diagrams, etc.), understanding text organization and linguistic/ semantic aspects. The above skills are frequently considered as the basis for practice in textbooks and materials. Sometimes the skills are taken separately, or in combination, and used as the focus for the unit or exercise (Jordan, 2000).

Reading serves as the basis of education in all the academic content areas and without the ability to read, students may truly struggle throughout life. The longer students remain disengaged from academic tasks, the more likely their academic performances will suffer, resulting from undesirable outcomes (Rock, 2005). Also, regarding reading strategies, Wangsgard (2010) mention that these are methods or procedures readers may use to get a better

understanding of what they are reading. Once readers have learned to use effective reading strategies, they can apply the strategies regularly depending on the demand of the text.

At this point of life, many teachers understand the importance of teaching, modeling, and practicing reading strategies in their classrooms. In fact, the No Child Left Behind Act (2002) challenges teachers to use research-based intervention such as strategy instruction, to improve students' overall reading achievement (Pilonieta, 2010). Yet, few teachers have the knowledge, training, or resources to properly implement strategy instruction.

In fact, in the 1970s an educational researcher by the name of Durkin (1978-1979) found that educators were devoting little time to teaching their students techniques for enhancing their understanding of the text; It is stated that "less than 1 % of classroom reading instruction was dedicated to comprehension instruction" (Pilonieta, 2010, p. 154). Therefore, teachers continue to test, but not to teach, comprehension. As a result, a large percentage of children continue to fail to reach their potential as readers (Pilonieta, 2010).

3.2 Constructivism Theory

In the early 1970s, research in reading, especially reading comprehension, was fragmented and lacked a coherent theory. This fact was pointed out by the National Institute of Education when it was created in 1972 (Miller, 1973) and again, four years later, when it established the national center for the study of reading with the constructivist theory as its head. Vygotsky (1978, 1986) viewed reading and writing as social activities that reflected the culture and community in which people lived. According to Vygotsky (1986), language helps to organize thought, and people use language to learn as well as to communicate and share their experiences with others.

Constructivism focuses on how the learner internalizes new information and creates his own understanding. It examines how people combine new knowledge with their already created schemas. Much of the after reading stage focuses on the skills the readers dynamically employ to understand a text - building their own interpretations of new information. Jean Piaget (1896-1980) a Swiss psychologist, observed human development as progressive stages of cognitive

development. His four stages, which begin at infancy and progress into adulthood, characterize the cognitive abilities necessary at each stage to construct meaning of one's environment.

Pearson and Stephens (1994) report that constructivism is a term used by contemporary reading experts to explain how a reader processes text. In the constructivist model, teachers do not transmit knowledge to passive learners; instead, learners actively construct meaning by relating new information to what they already know, using reasoning supported by strategies.

Vygotsky (1978) suggests that very little is learned when students perform tasks they can already do independently. Vygotsky suggests that students can accomplish more difficult things in collaboration with someone who is more advanced. He suggests that more challenging tasks done with teacher scaffolding are more conducive to learning. As students learn, teachers gradually withdraw their support, so that eventually students perform the task independently (Vygotsky, 1978). According to Rumelhart (1977) and Stanovich (1980), readers construct meaning using a combination of text-based information and prior knowledge. According to Tompkins (2003) researchers have determined that fluent readers use both their prior knowledge and features in the text simultaneously and interactively, as well as use work-identification skills and comprehension strategies simultaneously and interactively.

3.3 The Schemata Theory Model

Bartlett (1932) first used this particular term to explain how the knowledge that we have about the world is organized into interrelated patterns based on our previous knowledge and experience. These "schemata" also allow us to predict what may happen. This theory takes our idea of the interactive reading process a stage further by proposing that efficient readers are able to relate "texts" to their background knowledge of the world. Also, Rumelhart (1980) suggested that the schema theory is an explanation of how readers use prior knowledge to comprehend and learn from text.

The concept of schema has been defined and used by several authorities. The schema theory was developed by the gestalt psychologist Bartlett (1932). This author considered it as "an active organization of past reactions or experiences" (Bartlett, 1932, p. 201). Later, schema was introduced in reading by Rumelhart (1980), Carrell (1981) and Hudson (1982) when discussing the important role of background knowledge in reading comprehension. Another author defines

schema as "a data structure for representing the genetic concepts stored in memory" (Rumelhart 1980, p. 34). Schema theory is based on the belief that "every act of comprehension involves one's knowledge of the world as well" (Anderson et al. 1977 cited in Carrell and Eisterhold, 1983, p. 73).

For Anderson and Pearson (1984, p.42) a schema is "an abstract knowledge structure". Thus, readers develop a coherent interpretation of text through the interactive process of "combining textual information with the information a reader brings to a text" (Widdowson, 1979 cited in Grabe, 1988, p.56). Also, (Cohen et al. 1993, p. 28) explain schemata as "packets of information stored in memory representing general knowledge about objects, situations, events, or actions". O'Malley and Chamot (1999) agree with this schema theory and take a further step in including the importance of strategy use when they say:

Consequently, comprehension and retention of textual materials will be influenced by prior knowledge, the purpose for reading, the strategies used, and the expected application of the information.

(O'Malley and Chamot 1999, p. 65)

3.4 The Schemata and the Reading Process

The knowledge people get from experience is organized in a variety of ways depending on the individual minds. For this reason, people have different experiences of the same incident, and consequently, different interpretations of the same text. According to Nuttall (1996, p.7), the schema:

It is a mental structure. It is abstract because it does not relate to any particular experience, although it derives from all the particular experiences we have had. It is a structure because it is organized; it includes the relationships between its component parts.

If a reader possesses sufficient and/or similar schemata of the writer and the text can activate them properly, he/she will be able to interpret the text successfully and meaningfully. On the other hand, a reader of weak schemata cannot penetrate the thought and message of the writer and will remain in a state of darkness and spend much time groping for the meaning of the text.

Nuttall (1996) has illustrated this by an example. The first sentence from the example is, the bus careened along and ended up in the hedge. In this text of a single sentence, bus schema can be cited to illustrate the idea.

It is to be noted that there is no mention of road in the text, but the readers do not face any difficulty in understanding the elaboration that the bus was running along 'a road'. This means that our road schema is hovering at the back of our minds in case of need; the road schema for some readers will include components such as walls, hedges, fences which mark the limit of a road.

(Nuttall, 1996, p.12)

However, if the reader's road schema does not include 'hedge' along the roads, s/he will be in difficulties to understand the meaning of the text, and will, perhaps, be in a puzzle where the bus actually stopped. Thus, reading makes use of our existing schemata, and if necessary, modifies it (in the above example, the reader may check and learn the word, 'hedge', which will add knowledge to his/her existing schemata).

Moreover, all the schemata should not, and need not be recalled. In a 'responsive reader' only the relevant schemata are activated. Schemata in a reader are not constant. They are always changing. Existing schemata may be changed or modified by new experiences derived from reading, or from our daily affairs. To put it in Nuttall's word, (1996, p.8) "a schema grows and changes throughout our lives, for as long as we retain the capacity to learn." It has already been stated that the schemata of a student play a vital role in exploiting and understanding a text.

Teaching reading concerns mainly with schema activation and schema availability. Social, cultural, historical or even mythical or religious schemata are all important to understand a text properly.

(Shahidullah 1995, p.214)

It is claimed that "the first part of a text activates a schema... which is either confirmed or unconfirmed by what follows" (Wallace 1992, p.33). The reading process, therefore, involves identification of genre, formal structure and topic, all of which activate schemata and allow readers to comprehend the text (Swales 1990, p.89).

3.5 Types of Schemata

Patricia Carrell (1987) divides schema into two types; content schema and formal schema. The former is knowledge pertaining to the content of a text and the latter pertains to the rhetorical organizational structures of the text. Swaffar (1988) refers to these two types as concept schema (content) and lexical schema (formal). The actual information in the reading and the particular purpose would be the content schema. The formal schema is about the text organization such as how the main ideas and supporting details are laid out and conveyed or how events are sequenced (Carrell, 1987). Swales (1990, p.87) believes that this and other research "supports the common sense expectancies that when content and form are familiar the texts will be relatively accessible".

The significant role of background knowledge in reading comprehension is underscored by Carrell and Eisterhold (1987). They point out that a reader's comprehension relies on his ability to connect the information that he gets from the text with his pre-existing background knowledge. Schemata theory, for example, usually draws distinction between content and formal schemata. The first type refers to background knowledge about the topic or subject matter of the target text, while the second type refers to background knowledge of the formal, rhetorical organizational structures of different types of text (Carrell and Eisterhold, 1992).

Also Li et al. (2007) described that Formal schemata refer to the knowledge of rhetorical patterns and the organizational forms in which the information in the text is written. Familiarity with text structures influences the speed at which the reader processes the text. Content schemata are the reader's background knowledge of the topic being read and familiarity of the topic from previous experience, or whether it is related to socio-cultural settings of the reader.

They comprise topic familiarity, cultural knowledge and previous experience with a field. Readers with higher background knowledge can comprehend and remember the text much better. "We interpret what we read in terms of what we already know, and we integrate what we already know with the content of what we are reading" (Nunan, 1999, p. 256).

In many cases an efficient reader appears to use what are called "top-down" and "bottom-up" strategies. This means that the reader will not just try to decipher the meaning of individual lexical items but will also have clear ideas about the overall rhetorical organization of the text. The essential features of the bottom up approach are that the reader tries to decode each individual letter encountered by marching it to the minimal units of meaning in the sound system

(the phoneme) to arrive at a meaning of the text, whereas with the top-down approach, the interaction process between the reader and the text involves the reader in activating knowledge of the world, plus past experience, expectations and intuitions, to arrive at a meaning of the text. In other words, the top-down process interacts with the bottom-up process in order to aid comprehension.

According to McDonough and Shaw (2003), teachers should provide students with a purpose for reading by supplying material that stimulate interest and do not have an overfamiliar content. According to this theory, our prior experience and knowledge of the world are formed into interconnected patterns of constructions. For instance, other studies have shown general effects of content schemata on EFL/ESL reading comprehension. Johnson (1982) has shown that a text on familiar topic is better recalled by ESL readers than a similar text on an unfamiliar topic.

3.6 Meaningful Learning Theory

David Ausubel (1978) was a cognitive learning theorist who focused on the learning of school subjects and who placed considerable interest on what the student already knows as being the primary determiner of whether and what he/she learns next. Ausubel viewed learning as an active process, not simply responding to your environment.

Ausubel's (1978) focus was on meaningful learning rather than rote learning. To him new learning was meaningful when it could be related in a non-arbitrary fashion to that which a person already knew. Meaning happens when new information is taken into a person's existing cognitive structure and is related to the previously learned content forming new connections between this new information and the existing information.

Because meaningful learning involves recognition of the links between concepts, it has the privilege of being transferred to long-term memory. The most crucial element in meaningful learning is how the new information is integrated into the old knowledge structure. Accordingly, Ausubel (1978) believes that knowledge is hierarchically organized; that new information is meaningful to the extent that it can be related (attached, anchored) to what is already known. This is how meaning works according to Ausubel. Rote learning, on the other hand, happens when the new information cannot be related to the previously learned content in any substantive manner. In

essence, there is nothing in the person's existing cognitive structure to which she or he can relate the new information to form meaning. Meaningful learning stays and becomes the basis for learning additional information; Rote learning does not stay because it does not have these meaningful connections. Thus, it fades from memory rather quickly.

According to Ausubel (1978), all learning happens the same way by being compared and contrasted with prior knowledge that exists in a person's cognitive structure. If a person has relevant content in his or her existing cognitive structure to which the new information can be related, then the learning can be meaningful. Likewise if the person does not have relevant content in his or her cognitive structure, then the new information can only be learned in a rote manner. The key point here is that the process of learning does not depend on whether the content has to be discovered by the learner through a discovery learning process or the content is given to the learner in the final form as is done in reception learning.

To sum up this chapter, Constructivism focuses on how the learner internalizes new information and creates his own understanding; the Schemata theory considers that the reader's comprehension relies on his ability to connect the information that he gets from the text with his pre-existing background knowledge; for the Learning theory, if a person has relevant content in his or her existing cognitive structure to which the new information can be related, then the learning can be meaningful. It will be useful to provide students with strategies that help them to enhance their reading skills through the use of texts related to their major. They will be able to have a better performance in reading.

To conclude, reading is a basic tool for any university student. While pursuing their majors, students have to take English lessons and it is important for them to develop reading skills as reading constitutes one of the principal ways of studying. For this reason, the development of reading strategies represents a powerful tool to enhance their reading skills. The theories presented suggest that learners have the possibility of improving their reading performance in English by using reading strategies and by reading texts that are related to their major.

CHAPTER 4 Methodology

This chapter describes the procedures for measuring the variables of the study, for data collection and for data analysis. This study focuses on developing reading strategies since Reading is considered an essential tool in the students' future as professionals. The ultimate goal of reading is comprehension. It allows the reader to make sense of what the text is about. Strategic reading methods can help students achieve not only their academic needs, but more importantly their life goals.

This research used a quantitative approach with a quasi-experimental design, defined by Hernandez, Fernandez and Baptista (2006) as the type of study that manipulates at least one of the independent variables to see its effect on one or more dependent variables. The independent variables were the use of reading strategies and the use of texts related to students' major. The dependent variable for this study is students' reading efficiency.

This empirical study was used to measure the result of an intervention on students from the University of Quintana Roo. In this study, there was a treatment group and a control group. Both groups consisted of students in the initial years of an undergraduate degree in medicine and nursing at the University of Quintana Roo. The treatment was carried in one of the medicine and nursing groups formed by students who were taking pre-intermediate English at that moment. The experimental group received a workshop in the use of reading strategies and the use of texts related to the students' major, and the control group was withheld from the treatment.

4.1 The Rationale for the Selection of the Sample Medicine and Nursing

The intention of this thesis was to apply reading strategies for academic purposes because the English classes in the division of medicine usually consist of students of Medicine or Nursing whereas the groups in our campus can have students from 5 or 6 different majors. Also, there is a

big enrollment in these majors, making it possible to have groups of 20 students in each class. The vocabulary used by these professionals is more specific than in the case of some other careers, making the intervention more enticing and more interesting for these students.

4.2 Research Design

The present research is a quasi-experimental design because there is a limited or no control over the selection of the subjects of the training or other factors studied. In this study, four tests were applied; the first one was a pretest, the second and third exams were applied only to the experimental group, and finally the fourth one was a post- test applied to both groups. The results of the pre-test and the post-test from both groups were analyzed to see the effects of the training.

The aim of this study was to introduce and measure the effectiveness of teaching reading strategies by using texts related to the students' major. It was a quasi-experimental design, whose objective was to measure the influence of using reading strategies and texts related to the major the students were following. The intervention took place in a group of medicine and nursing students who were in a Pre-intermediate level of English. They were developing their reading skills, and at the same time enhancing their vocabulary through texts within topics of health science.

4.3 Context

According to the official webpage of the University of Quintana Roo, this university offers Bachelor, Master and Doctoral programs at its four campuses: Chetumal, Cozumel, Playa del Carmen and recently, Cancun. The Chetumal campus offers seventeen Bachelor's programs, seven Master's programs and one Doctoral program.

The population is the total of the phenomenon that is going to be studied, whose units possess a common characteristic that is studied and gives origin to the data of the investigation.

(Tamayo, 1998, p. 97)

The present study took place at the University of Quintana Roo (UQROO) Chetumal campus, Quintana Roo, Mexico. All the students from all the different programs of this university are required to take four levels of English to get credits in order to obtain their corresponding degree. The students have to take these English lessons at the language center, Centro de Enseñanza de Idiomas (by its Spanish acronym CEI). At the moment of the intervention more than 500 students from the medicine division were enrolled in the English courses in the campus Chetumal. The subjects of this study were 18 students, ranging from 19 to 25 years of age. These students were registered in the fourth semester of their major at the University of Quintana Roo.

4.4 Rationale for Selecting Pre-Intermediate Students

The students were previously enrolled in two semesters: Introductory and Basic level in which they developed somewhat the ability of reading in English. For this reason, they are more familiar with the structure of English than if they were beginners. Additionally, they are more familiar with the vocabulary of their specialty in Spanish. The participants in this study were: two groups of students the majority majoring in medicine and nursing, and enrolled in the fall semester.

My expectation was that there would be a fair attendance rate because this has characterized the English classes since these careers opened. In general, we can say that I expected there to be a similarity in age, years of education and years of studying English across our subjects. The vocabulary used by these professionals was more specific than in the case of some other careers. One of the two groups was the group receiving the training and the other was a control group.

The subjects were selected based on the availability of formed existing classes enrolled in Pre-intermediate English classes, where the majority of students were studying the undergraduate

programs of medicine and nursing. These two groups were not randomly selected; they were intact groups which were taken as they were at the time of the study (Hernandez, Fernandez and Baptista, 2006). Both groups, the control and the training groups, were the only groups in the pre-intermediate level at that time. In the control group, there were 27 students registered of which only 20 participated in the pre-test and 19 in the post test. The training group consisted of 21 students but only 18 participated in the study. In the control group, the students were mostly majoring in medicine whereas the training group had the majority of the students majoring in nursing. This could have an impact in the results of the study and as such it may be considered a limitation.

4.5 Instruments

4.5.1 Questionnaire

The first instrument was a questionnaire, which was constructed from different questionnaires on reading. It has to be mentioned that the questionnaire was only used as a diagnosis. In the first section, students were required to give general information about themselves, their level of English and how long they had been studying English. The second section asked about their perceptions on reading (if they liked it or not), then they were asked their perceptions on their efficiency in reading, and about their opinion on the usefulness of the English language in their profession.

Also, it was used to have information on students' perceptions towards: learning English, reading in English and their views on the usefulness of reading materials related to their majors. These were done with the purpose of confirming my perception, towards these issues and support the need to carry out this research. Additionally, in some of the questions, there were blank spaces provided for students to state their opinions. Participants were also guaranteed that the data obtained was used only for the sake of the research purposes and it would be anonymous.

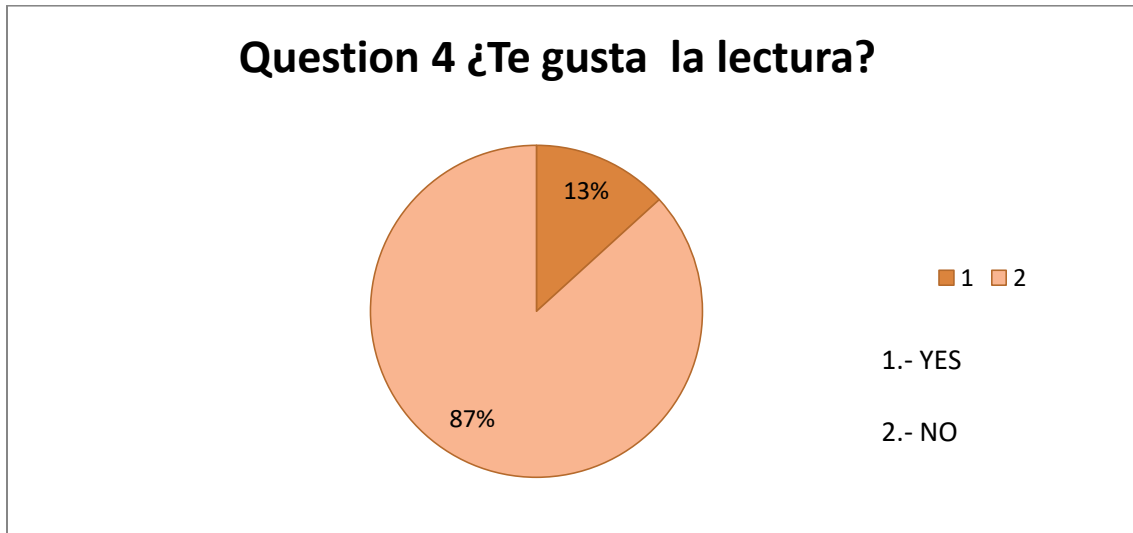
4.5.2 Piloting the Questionnaire

The questionnaire was piloted in a group that was studying Basic English (the previous level) in the University of Quintana Roo. The participants who answered the questionnaire were 24 students from four different majors of the university and they were around 20 to 26 years old. As a result of this application, there were no questions or doubts at the moment of answering it. Only two participants expressed their confusion with two of the statements. However, the statements were checked and analyzed. We considered some of them needed to be modified. The results of the trial run were the basis to modify the questionnaire and get the final version (Appendix A).

4.5.3 The Application of the Questionnaire

Subsequently, the Questionnaire was applied to 249 students from the Language Center (CEI). These students represented 30% of the students enrolled in an English course in the spring course 2015 in Campus Chetumal including the two groups selected for the study. The results of the questionnaire demonstrated the students' perceptions on their efficiency in reading and the importance of English for their majors.

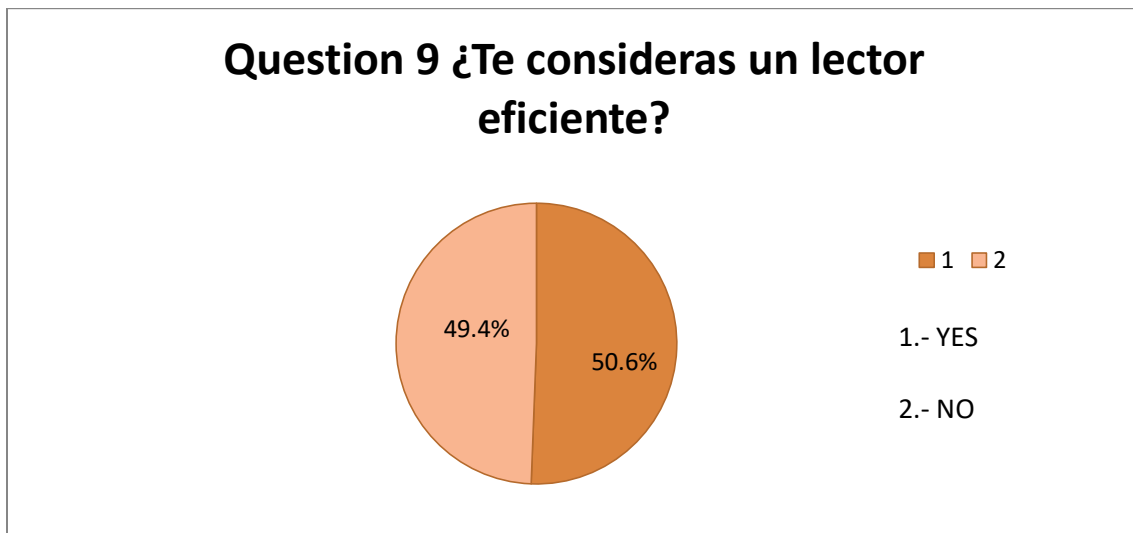
Figure 1 Like Reading



Source: Own elaboration based on the questionnaire applied.

According to the results obtained, most of the students (87%) stated that they do not like reading in English and only 13% declared that they did like it.

Figure 2 Efficient Reader



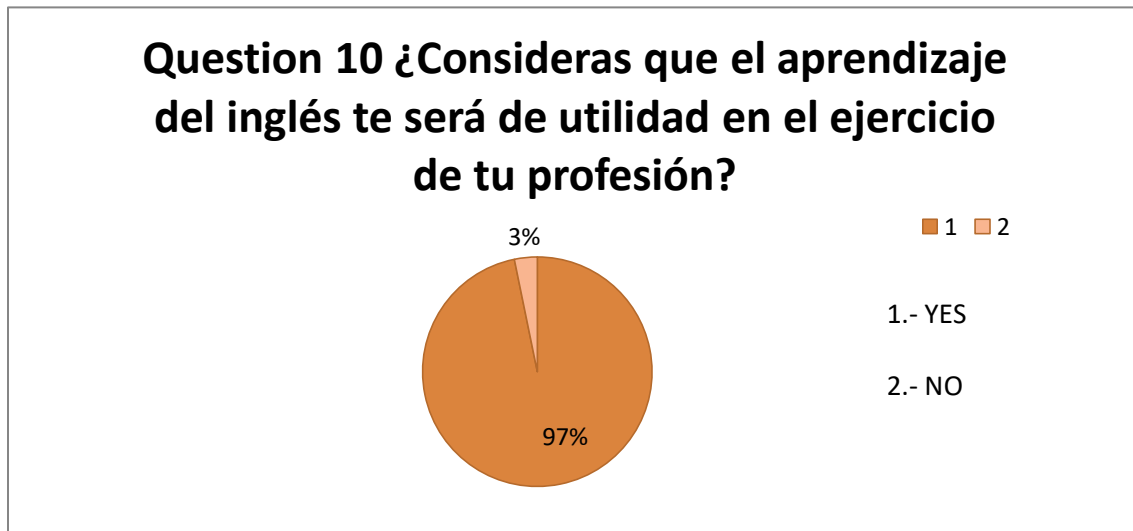
Source: Own elaboration based on the questionnaire applied.

They were also asked if they considered themselves to be efficient readers. According to the results obtained in the questionnaire, nearly half (50.6%) of the total of the students (N=249)

considered themselves efficient readers; the other half (49.4%) did not consider themselves as efficient readers.

The results showed a contradiction between students' perceptions as most of the students did not like reading and half of them considered themselves as efficient readers.

Figure 3 Usefulness of the Language



Source: Own elaboration based on the questionnaire applied.

Most of the students (97%) in this questions answered affirmatively referring to the utility of the English language in their professional life. Just a few of the students (3 %) did not consider the language to be useful in their profession, they just study the target language because it is compulsory and they do not think that English would be part of their professional life. Based on the results, it can be said that students know they need the language for their professional development, but it seems they are not interested in reading.

In general terms, the questionnaire shows that the majority of the students do not like reading; however, they consider themselves efficient readers in their native language. Furthermore, most of the students consider that the English language is useful in their studies and their future profession.

4.5.4 Second Instrument

The second task was a pre-test (Appendix B) applied to both groups in order to see the students' performance when facing reading comprehension tasks. This pre-test was applied before the training so that the result could present a general view on how students perform in this type of tasks. The text was in English but they could answer the questions in Spanish. The test consisted of two short texts from which the students had to obtain information.

4.5.5 Third Instrument

The third instrument was a test (Appendix C) applied after the fourth session of the intervention to the study group whose purpose was to measure the different levels of acquisition of the reading strategies taught.

4.5.6 Fourth Instrument

The fourth instrument was a test (Appendix D) applied during the intervention to the study group whose purpose was to measure the different levels of acquisition of the reading strategies taught. And, this instrument was applied after the seventh session of the intervention.

4.5.7 Fifth Instrument

The last instrument was a posttest (Appendix E) applied to both groups after the training finished. Its purpose was to compare the results of the training group with those of the control group and to realize if the training had been useful or not.

4.6 Materials and Procedure

4.6.1 Intervention

It can be difficult to detect students who are not very successful while reading. However, it is important that as teachers, we fuel all of our efforts into trying to solve this problem, as reading intervention is key in helping students become good readers - or at least reasonable ones. Such corrective approaches have been proven to be widely successful. This reading intervention is basically aimed at identifying those students who are struggling when reading and providing them with a more individualized group learning experience.

4.6.2 Organization of the Training

This workshop was designed for the development of reading skills. The aim of this study was to introduce and measure the effectiveness of teaching reading strategies by using texts related to the students' major. This is so because it was considered that the main objective of learning the language at the university level is to obtain more information related to the students' career

during their studies and later on in their professional endeavor. This can be done by enhancing the vocabulary specifically used in their major and becoming familiar with the characteristics and the structure of academic English.

4.6.3 Objective

To provide the students with strategies that would help them enhance their reading skill through the use of texts related to their major.

4.6.4 Justification

Students seldom develop reading for academic purposes in their EFL courses. What they usually read is given to them through textbooks for the learning of the language as a whole. These books seldom have any provisions for learning to read for academic purposes. On the other hand, the students are somewhat familiar with academic reading because they have been reading continuously in Spanish.

Reading is a basic tool for university students. During their undergraduate schooling, students have to develop reading skills as this constitutes one of the principal means for obtaining information. For this reason, the development of reading strategies represents a powerful tool to enhance their reading skills.

4.6.5 Participants

It was necessary to have two groups of students from the medicine and nursing majors who were registered in the pre-intermediate level. One of the groups received the classes and the control

group continued with their classes which included regular reading activities carried out by their teacher based on the course content curriculum.

4.6.6 Duration

The training was held in the 2015 fall course, in a two-hours-a-week class during an eight weeks period conducted in the months of September and October. The intervention group received 16 hours of training.

4.6.7 Procedure

The classes for the experimental group were conducted by the author of this thesis, after obtaining the authorization from the chair of the department. The same pre-test was applied to both groups; the control and the intervention group prior to the beginning of the training. The classes began in the intervention group with an explanation of the workshop, which included the objective, the procedures and the expected results. The procedure to be followed was: presentation of the strategy, discussion to see if this strategy was used, consciously or unconsciously, while reading texts in Spanish, conscious practice of the strategy through different texts. Finally, an anonymous reflection was required (using a number given in the beginning of the course) in order to know students' opinions on what they had learned, and how they felt after each class.

4.6.8 Organization of the Course

In the first session, the teacher explained the importance of developing the reading skills and the different types of skills that were going to be practiced during the course: pre reading, while reading and post reading. Also, she introduced different types of reading strategies (skimming, scanning, summarizing, etc).

In the second session, the topic was skimming and it was important for a better understanding of what they read. Also, it was taught predicting content from title and vocabulary from context. In the third class students continued practicing skimming with texts related to their major and should be the organization of most academic writing. In the fourth class the main topic was related to the concept of reading in "chunks" i.e. looking at the text surrounding the unknown word for clues (i.e. "chunking", parts of speech, logical deduction, and vocabulary activation) in order to arrive at a much fuller understanding of difficult texts - even if they do not understand each word.

During the fifth class students worked on surveying a text; in the sixth class students applied the previous strategies that they had been practicing, but using complete texts. During the seventh class students continued practicing predicting content from title, predicting the vocabulary used in the text, skimming through the text to find the main idea, underlining the words whose meaning could not be guessed. In the eighth class students applied the previous strategies and finally, after reading the text, they had to write a summary in Spanish expressing their view on the authors, the authenticity and the usefulness of the text.

4.6.9 Strategies Developed

The workshop was designed to fulfill the objective of working with some strategies for a more efficient reading in English through the use of health science texts. The teacher introduced some of the more commonly used reading skills in each of the classes. It was not followed any specific

sequence, but the pre reading strategies were taught first, then the while reading and finally the post reading strategies:

- ❖ Pre reading strategies: predicting contents from title, predicting the vocabulary contained in the text, recalling what is already known about the subject matter.
- ❖ While reading strategies: obtaining meaning from context, skimming, scanning, using contextual clues, using previous knowledge to guess the meaning of words.
- ❖ After reading strategies: surveying and summarizing information.

4.6.10 Assessment in the Intervention

During the training two tests were applied: Test 1 was applied after the fourth class. In this test, the students' progress was evaluated on the way they dealt with a short text related to their specialty and how much information they could obtain from it. Test 2 was applied after week 7 and mostly with the same objective as the first one. There was a difference in the results obtained between these two tests applied during the intervention. For test 1, student did not demonstrate a good use of the reading strategies. Nevertheless, in test 2, and after seven weeks of training, the majority of the students demonstrated a great use of the reading strategies taught.

4.6.11 The Post-Test

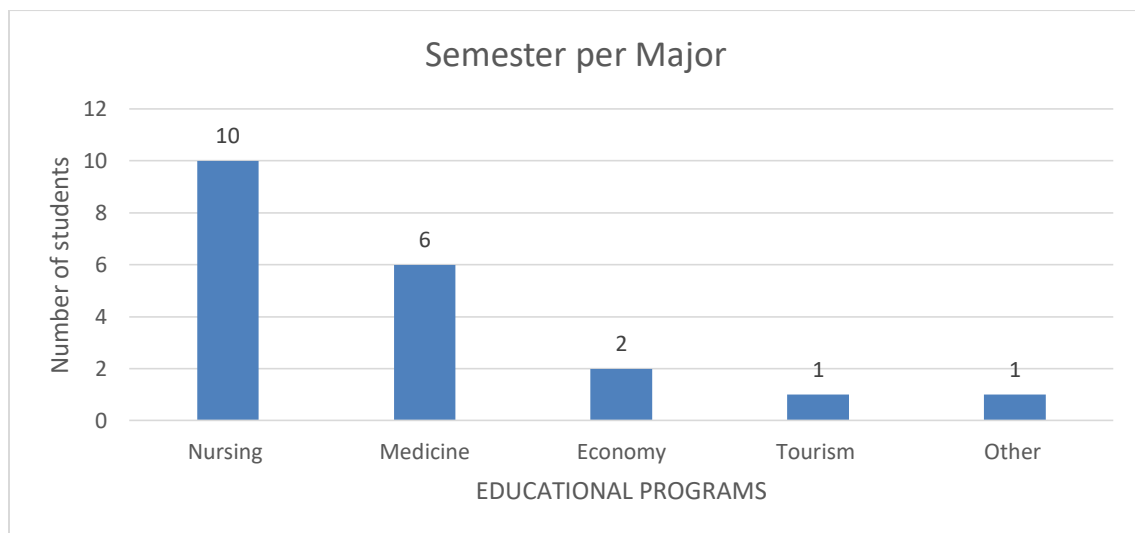
The post-test evaluated whether the training reflected an improvement in the general of approaching a text for reading it. The post-test was done based on the same description of the pre-test. It was applied to both groups in order to compare students' performances.

4.6.12 Piloting the Tests

In order to see the efficacy of the assessment material (the pre-test evaluation), it was piloted. The piloting of the first test was carried out with a group of 20 students. During the piloting, students were asked to express all their doubts and comments about the test (if instructions and tasks were clear or if the texts were understandable). All their comments and doubts were taken into consideration to modify the test. Only three students expressed that the instruction of exercise 2 was unclear, therefore it was modified. The rest of the students did not have any problem with the instructions and tasks.

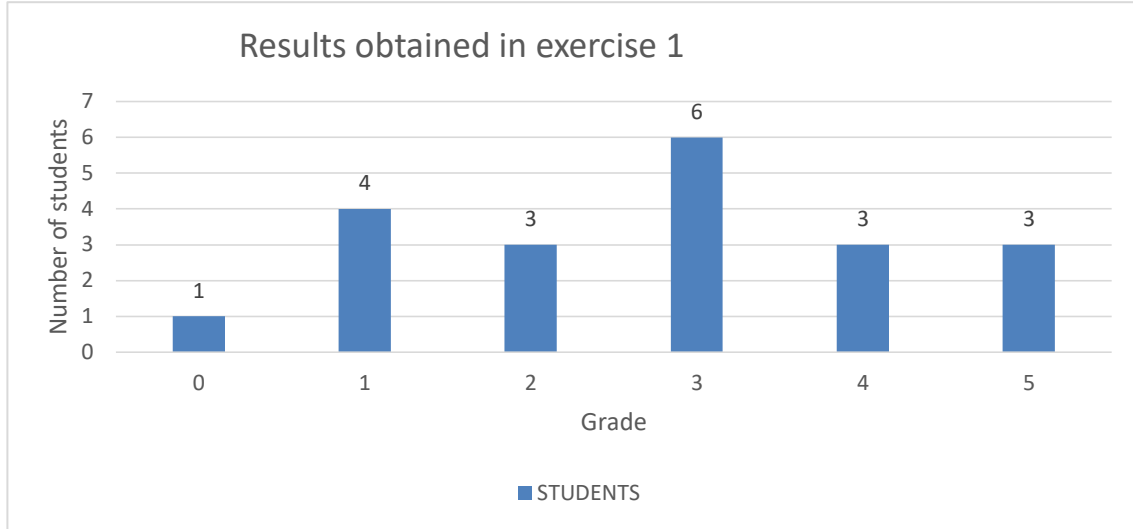
Most of the students were in the Nursing major (10), some were from the Medicine major (6), few of them were from Economy major (2), from Tourism there was only 1 and one of the students' major was unknown. This is represented in the "other" section.

Figure 4 Students Majors



Source: Own elaboration based on the test results

Figure 5 Exercise 1

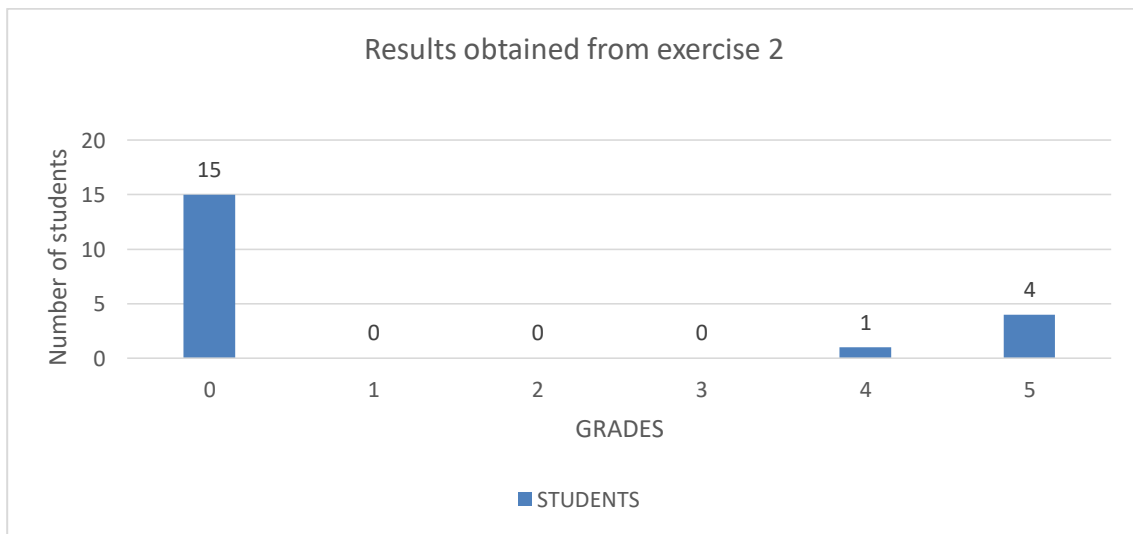


Source: Own elaboration based on the test results

According to the results obtained it can be said that they were not accustomed to predicting content based on the title given. This difficulty led the teacher to realize that the purpose of the exercise should be explained to avoid confusion.

In the second exercise students had to write if their prediction of the content of the text was correct or not. They just had to say yes or no.

Figure 6 Exercise 2



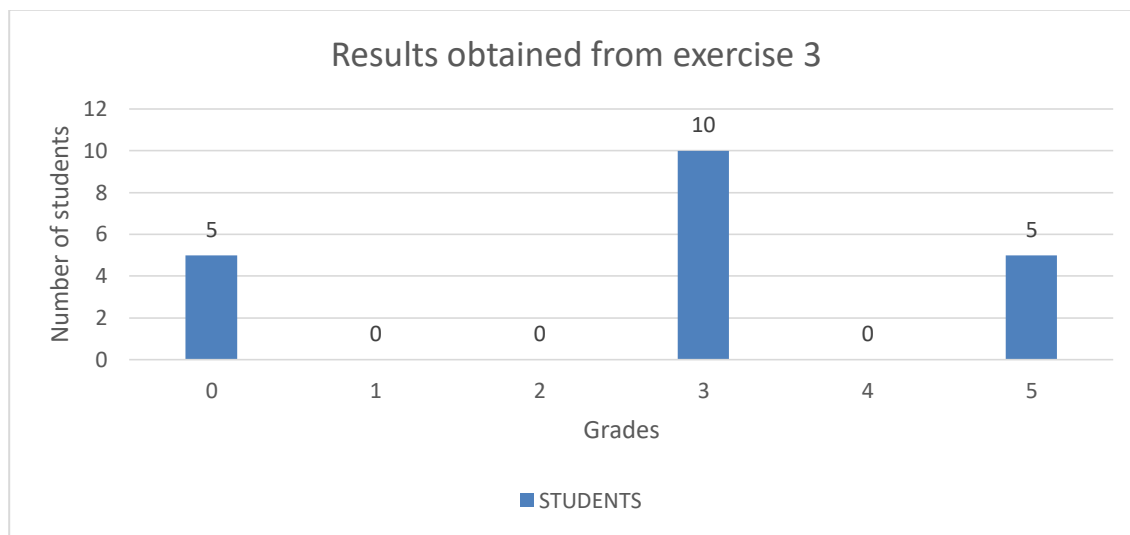
Source: Own elaboration based on the test results

Most of the students (15) did not answer the exercise. This is reflected in their scores: most of them obtained a 0, a few of them (4) answered and got 5 points, and one student got 4 points. The grading scale was based on the Oxford standard. Apparently the second exercise was not appropriately located in the test so it was assumed that the examinees did not see the exercise. For that reason the location of this exercise was changed in the final version.

In the third exercise, the students had to underline words from the texts that they did not know and could not guess their meaning. The score of the exercise was given according to the type of word the student underlined, there were some words in the text that had no relationship with Spanish and the students could not guess their meaning easily. If the students underlined those words he/she obtained the maximum score, 5.

On the other hand, there were words of common use which, according to the students' English level, should already be known. If they underlined words like doctors or nurse (cognates) or words like first or second, which they should have acquired before entering the university they would get a zero. In the case of students who did not underline any word, then it was surmised that they were able to understand every word in the text.

Figure 7 Exercise 3



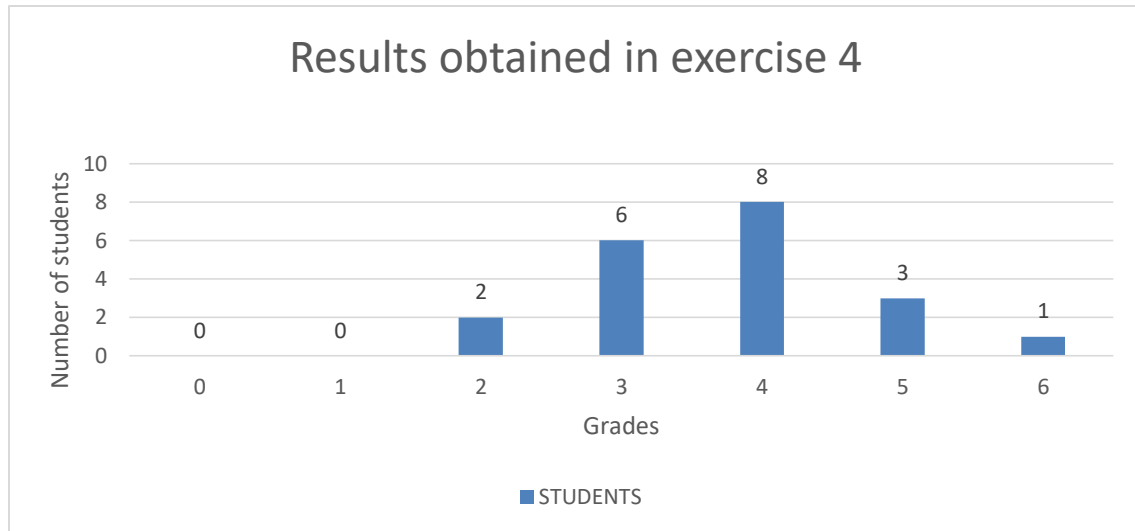
Source: Own elaboration based on the test results

Half of the students (10) got 3 points out of 5, because those students underlined at least one word that had no relationship with Spanish and they could not guess the meaning easily. Some of them (5) got 5 because the words they underlined were the ones that had no relationship with Spanish so they could not guess the meaning, and the rest of the students (5) got 0 because

two of them did not answer the exercise and the other three underlined cognate words or words, which they should have acquired before entering the university.

In this exercise students had to choose if the sentences given were true or false according to the text given.

Figure 8 Exercise 4

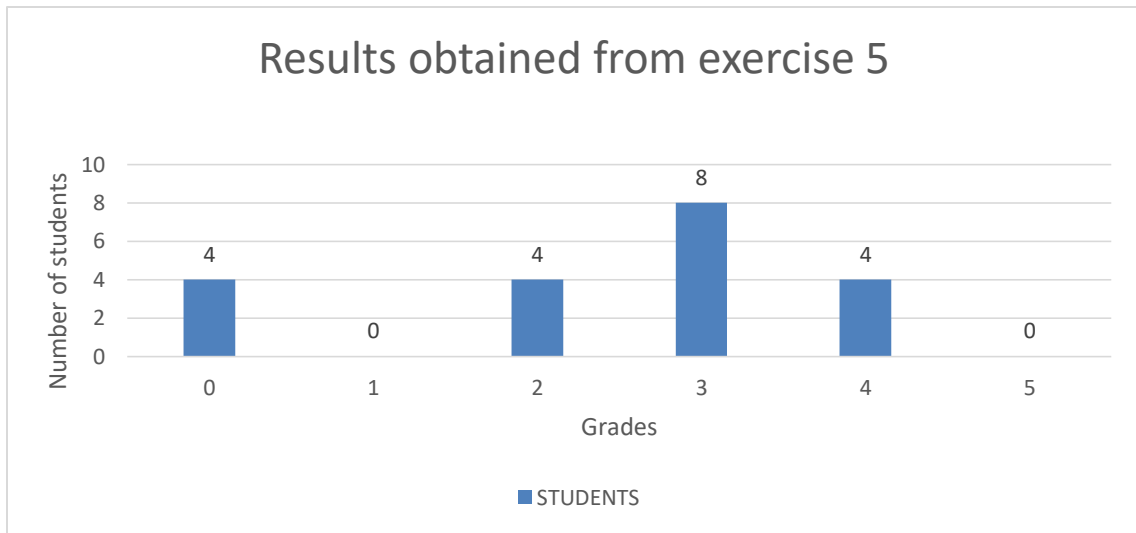


Source: Own elaboration based on the test results

In this exercise students had the information given in the text but with other words and they could choose the correct word “Yes” or “No” based on their understanding of the statement and what they had read in the text. Most of the students (8) got 4 answers correct, and it could be said that the most difficult three sentences were 1, 2 and 5 they should be revised as it is believed that they were not clear enough.

In this exercise students just had to infer the information in order to complete the phrases written in English with the correct information from the text.

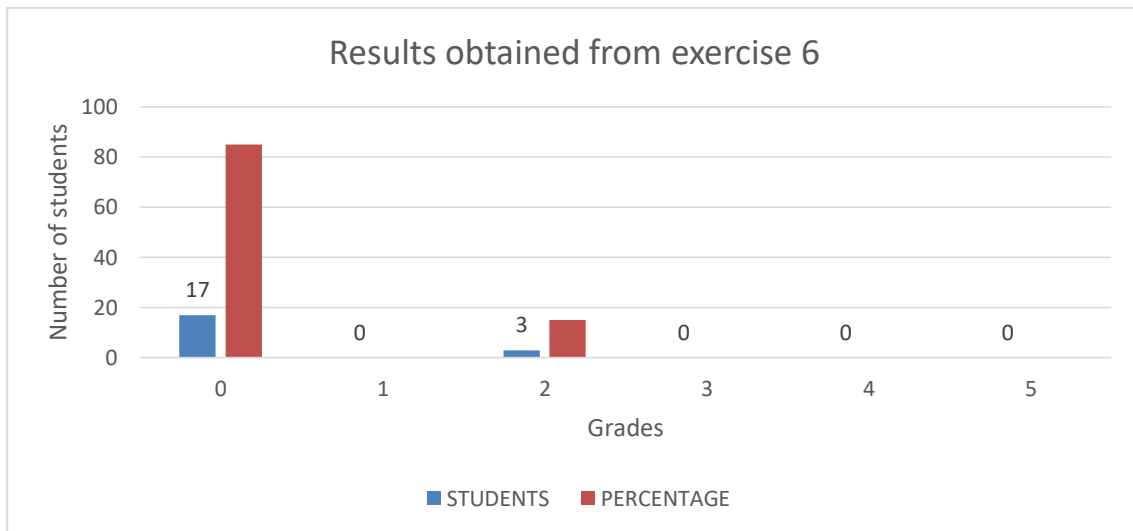
Figure 9 Exercise 5



Source: Own elaboration based on the test results

Most of the students did the exercise; some of them (8) got 3 points. Some (4) students got 4 points, 4 got 2 points. The last 4 got zero points. The results show that only eight students were able to infer the information needed to complete the sentences, and five of them could not infer at least one part of the answer even when they were given all the text. In the final exercise students had to read another short text related to longevity and after that they had to answer some questions.

Figure 10 Exercise 6



Source: Own elaboration based on the test results

Most of the students (85%) got zero points in this exercise. The text of this exercise had to be changed, because most of the students did not understand the meaning of the word longevity. Some of the students stated that they could not do the analysis of the text and answer the exercise because the English level of the text was too difficult for them. Based on the results obtained and the observations from the piloting, the pretest was modified. (Appendix B).

4.7 Test 1

During the training two tests were applied. Test 1 (appendix G) was applied after week four when students had practiced the reading strategies: skimming and scanning. At this point, they had done some exercises and this test was used to see their progress on the development of the reading strategies using a text related to their major.

The students' progress was evaluated on the way they dealt with a short or a long text related to their specialty and how much information they could obtain from it. They had done some practice on skimming, predicting content from title and vocabulary from context with texts more related to their major and the organization of most academic writing. Also they had done some practice related to the concept of reading in "chunks" i.e. looking at the text surrounding the unknown word for clues (i.e. "chunking", parts of speech, logical deduction, and vocabulary activation) in order to arrive at a much fuller understanding of difficult texts.

In the first exercise, students had to guess the meaning of some words from a text given. In the second exercise students had to read a more difficult text and they had to answer a True/False exercise. The maximum grade in this test was 10. Three points were given to the first exercise and seven to the second one.

4.8 Test 2

The second test (appendix H) was applied during week seven. Students had practiced the reading strategies: predicting content from title, predicting the vocabulary used in the text, skimming through the text to find the main idea, underlining the words whose meaning could not be guessed. Also they had worked on surveying a text (looking for an appropriate text by paying attention to details about the author, date of publication, abstract, preface, foreword or introduction, table of contents, and index. They had applied the previous strategies that they had been practicing but using complete texts.

The test had three exercises. In the first exercise the students had to predict the content of a text. In the second exercise the students had to read the complete text and then they had to underline the words that they weren't able to guess their meaning. In the third exercise students had to summarize the text in maximum 3 sentences. The maximum mark for this test was 10. Three points were given to the first exercise, three for the second and four to the third exercise.

4.9 Post-Test

The post-test (appendix I) was applied after the training and during week 9 to both groups: the experimental and the control group. This test evaluated whether there was a difference and an improvement in the performance of the students with that type of exercises. The post-test shares the same description as the pre-test.

CHAPTER 5 Findings

The outcomes of the application of the instruments before, during and after the intervention will be discussed in this section. The purpose of the intervention was to identify the level of mastery of reading strategies in university students. And, it was expected to increase students reading effectiveness in English. The groups selected to carry out this research were those who were enrolled in the Pre-intermediate level of English as a foreign language in the school of Health Science in the University of Quintana Roo campus Chetumal. The results of 4 instruments will be analyzed in this section: pre-test (applied before the intervention processes), Test 1 (applied in Week 4 of the intervention), Test 2 (applied in week 7 of the intervention) and the post-test once the intervention finished.

The instruments had a design guided by the hypothesis. The hypothesis stated in this research aimed to test whether a reading strategies training could improve the reading performance of the participants. In order to set a context of usage, health texts were our tool to measure performance in each stage of the intervention. Given the nature of the approach in this research, a control group and an intervention group were selected. The control group included 21 students while the intervention group included 18.

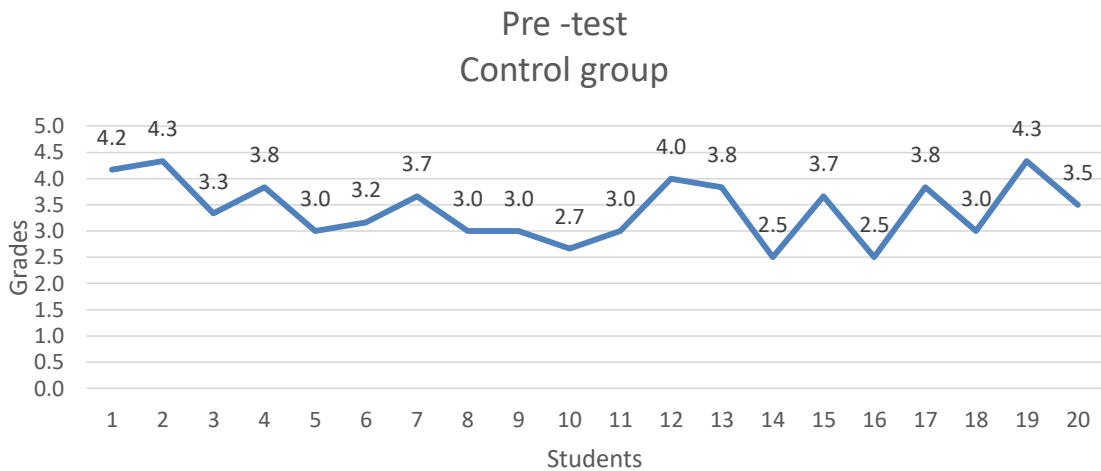
The control group took pre and posttests. 21 students participated in the pre-test and, by the time the post-test was applied, only 19 students made it. In the intervention group 18 students participated in the pre-test, 19 in test 1, 16 in test 2, and 18 in the post-test. This information may not be relevant in this point; nevertheless, it is important because it has an impact in the final results of the research and in the verification of the hypothesis.

The data obtained in the test were run using SPSS and the results were presented in SPSS and Excel graphics. The data analysis was based on Oxford's explanation of the SILL instrument (1990). According to Oxford, mean scores that fall between 1.0 and 2.4 are defined as low strategy use, 2.5 and 3.4 as medium strategy use, and 3.5 and 5.0 as high strategy use. The results of the Pre-test were interesting once compared with the Oxford standards of strategy use.

The first data showed that the Control group had a high use of strategies having a mean of 3.419 (3.5) against the mean of 3.250 of the intervention group (fig. 11 and 12). Despite of the

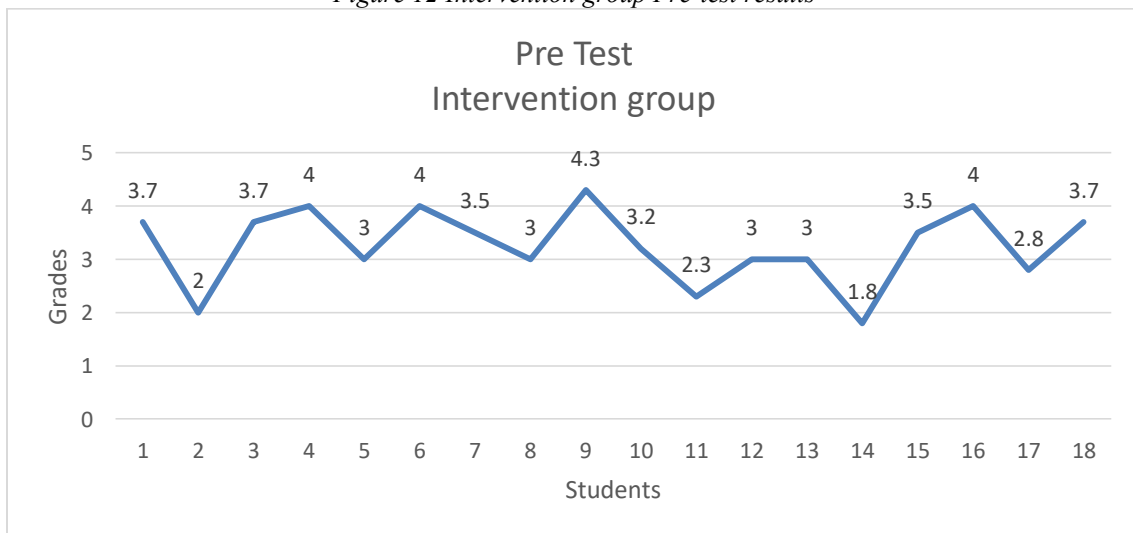
fact that the difference between groups seems relatively low, once comparing both result graphics other outcomes become significant. One student's result is not analyzed because he answered the instrument, but he did not follow instructions properly resulting in unmeasurable and odd answers.

Figure 11 Control group Pre-test results



Source: Own elaboration based on the test results

Figure 12 Intervention group Pre-test results

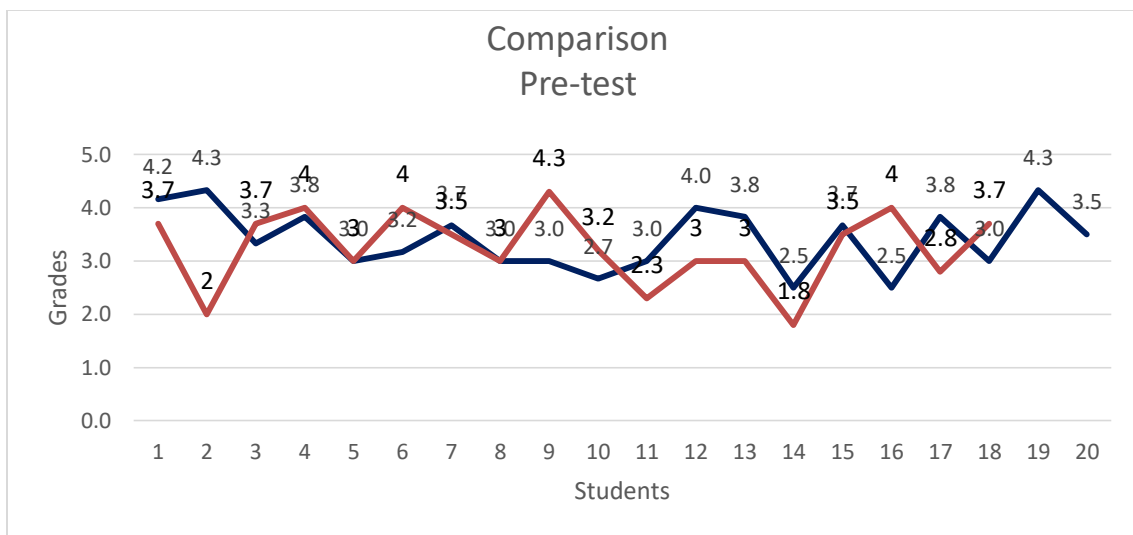


Source: Own elaboration based on the test results

It is noticeable that the control group seems more familiarized in using reading strategies, being these conscious or not. In the intervention group the internal differences are worth mentioning; on the contrary, the control group has a similar reading performance among them

(fig. 13). This is relevant in matters of lesson planning if that were the objective of this research. On one hand, it would mean that the teacher of the control group has an edge in the reading area, and the teaching must take advantage of it to keep the same standard of use or increase it during the semester of practice. On the other hand the teacher in the intervention group would require to first level up the reading skill of their students, that would mean extra training, and then to move forward to raise the reading performance in the group. That is the reason why the intervention process becomes interesting and necessary for the students selected to participate in it.

Figure 13 Comparison Pre-test results control (blue) and intervention (red) groups.

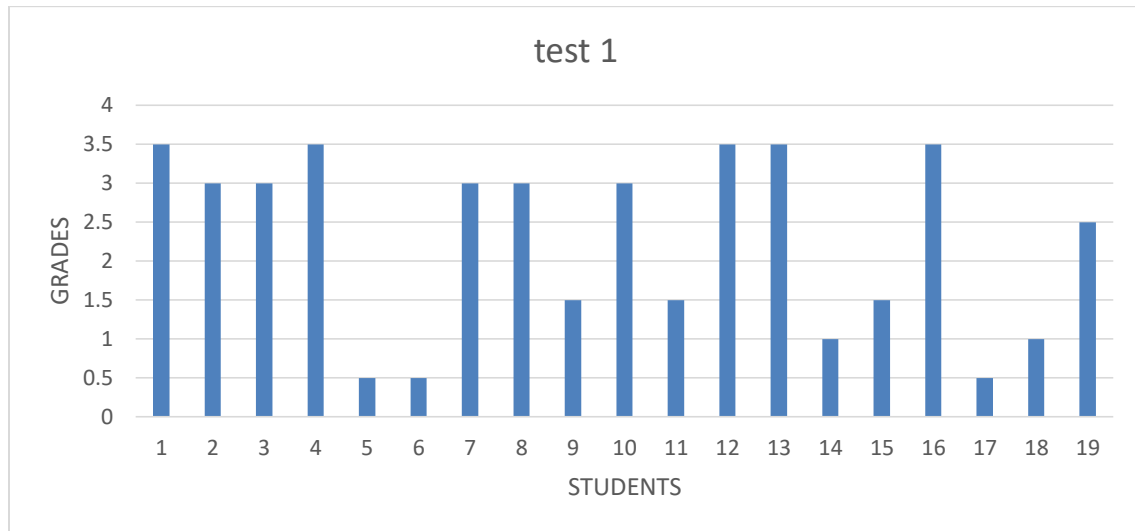


Source: Own elaboration based on the test results

After the Pre-test was applied, the students started the intervention classes. After 4 weeks of training in the intervention, it was necessary to measure if there was any sort of advance in their reading strategy use. The results show something unexpected at first; the Oxford standard after 8 hours of practice dropped from 3.250 in the Pre-test to 2.263 (fig. 14). The first reaction was not satisfactory; however, the reason for this was discovered after applying Test 2 three weeks later. When the first test was applied it was in the form of surprise exam. The results might have been due to the psychological implication of a surprise exam is always a factor affecting performance because not everyone feels comfortable in situations like these. The poor performance of the students may be explained as an ‘accommodation process’ (Piaget, 1952); they are getting familiarized with the test format, the time to carry it out, and the new knowledge

they were to use in the test. Something that was noted is that the students were having difficulty with the use of *while reading strategies*: obtaining meaning from context and skimming.

Figure 14 Test 1 results Intervention group



Source: Own elaboration based on the test results

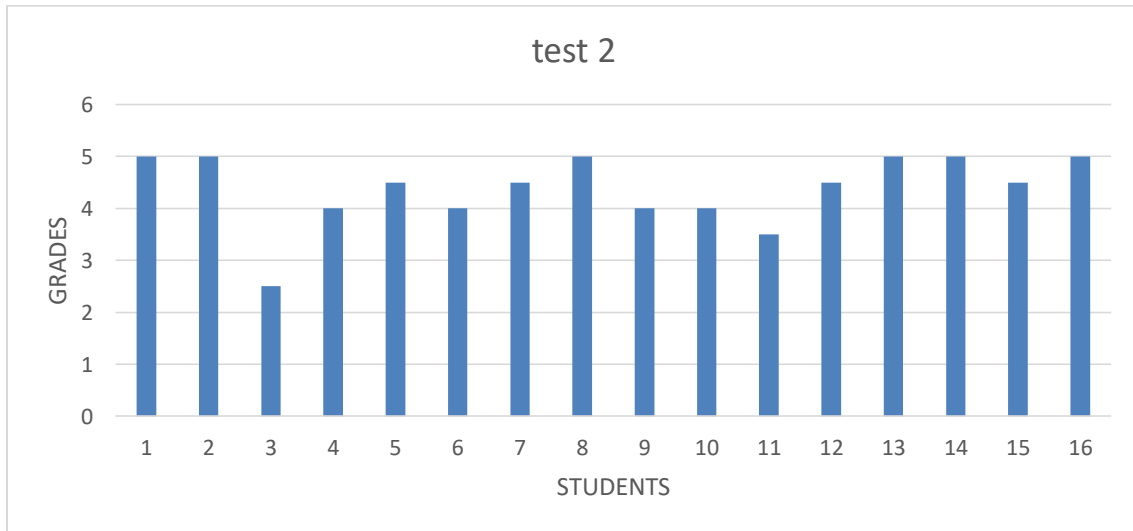
The second test was applied after seven weeks of strategy training. The results were much better than the first test. The Oxford standard increased from the test 1 result of 2.263 to 4.375 (fig.15). This result helped to understand and explain the results in Test 1. The new results showed that the students felt more comfortable applying the reading strategies practiced into something practical. Just as test 1, test 2 was a ‘surprise exam’. Differently from test 1, the students reacted with a different attitude. They felt ready and their performance was higher than the first time. Some students also wrote on the reflection that they ‘discovered’ that the reading skill training they were having in the intervention provided them with tools that they were able to transfer when they were reading texts in Spanish. This is remarkable because it means that the strategies became part of the metacognitive tools of the students.

After these results we were expecting that the post test showed that the students could keep them or that they could lose them. Nevertheless, there are several authors that talk about language transfer of skills from L1 to L2, but not many that talk about L2 to L1.

Hardin (2001) found that bilingual learners transferred learning strategies from one language to another irrespective of their level of proficiency. Hua (1997, in Koda, 2005) made a

comparison of use of reading strategies among Chinese ESL students in Chinese and English and found that readers used same comprehension strategies in the two languages. This suggests that reading strategies are transferable cross-linguistically, irrespective of linguistic distance (Talebi, 2013).

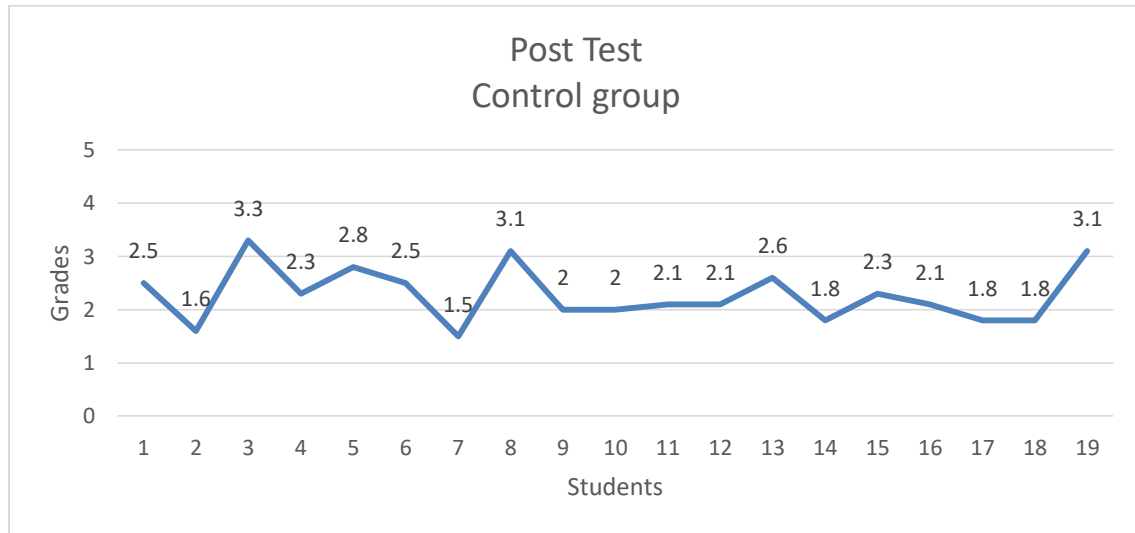
Figure 15 Test 2 results Intervention group.



Source: Own elaboration based on the test results

Both groups participated in the Post Test. The control group took the test and the results showed that there was an important decrease of their usage of reading strategies according to the Oxford standard. Their performance dropped from a high 3.5 to a low 2.2. (Fig. 16). The explanations of these could be many but there are 2 reasons that could explain what happened in this situation.

Figure 16 Post-test results control group

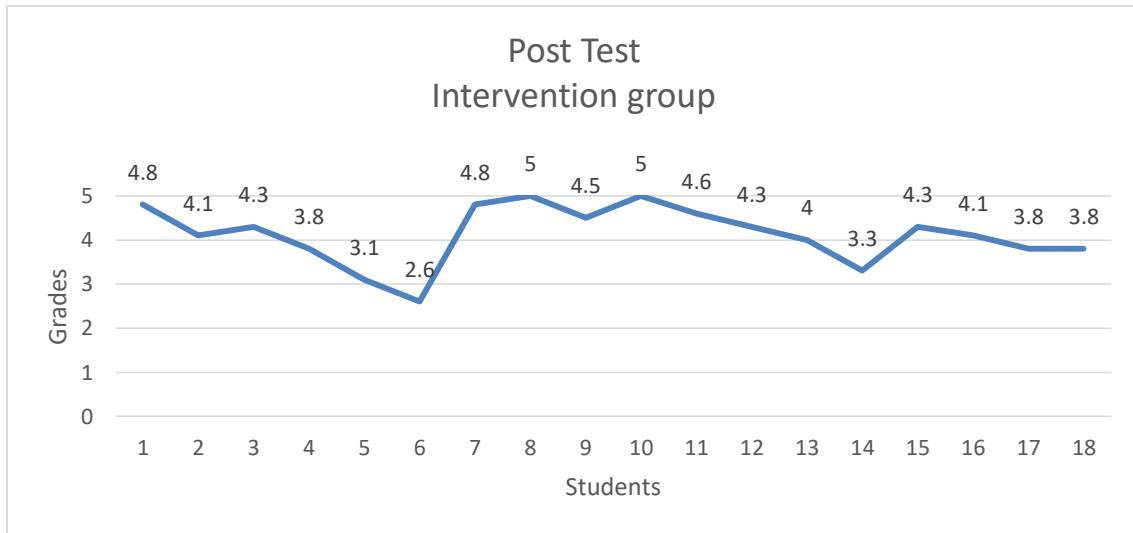


Source: Own elaboration based on the test results

- 1) The students lacked reading strategies training or reading activity that led to a decrease in their reading skill during the 9 weeks of English training that the intervention took with the intervention group.
- 2) The students felt no pressure and no interest in answering the Post-test as they knew the outcome would not affect their final grades.

Despite these reasons, the results are worrying; when a group with high mastery of skill loses it during 9 weeks instead of increasing there has to be a reason for it. On the contrary, the intervention in this research showed something quite impressive. In the Post test, the intervention group lost just slight points in the Oxford standard; in test 2 they had a group score of 4.375 and in the Post-test they just had a slight drop and the group obtained 4.122 in the Oxford standard (Fig. 17). This means that the group kept their high use of reading strategies resulting in a good performance in test 2.

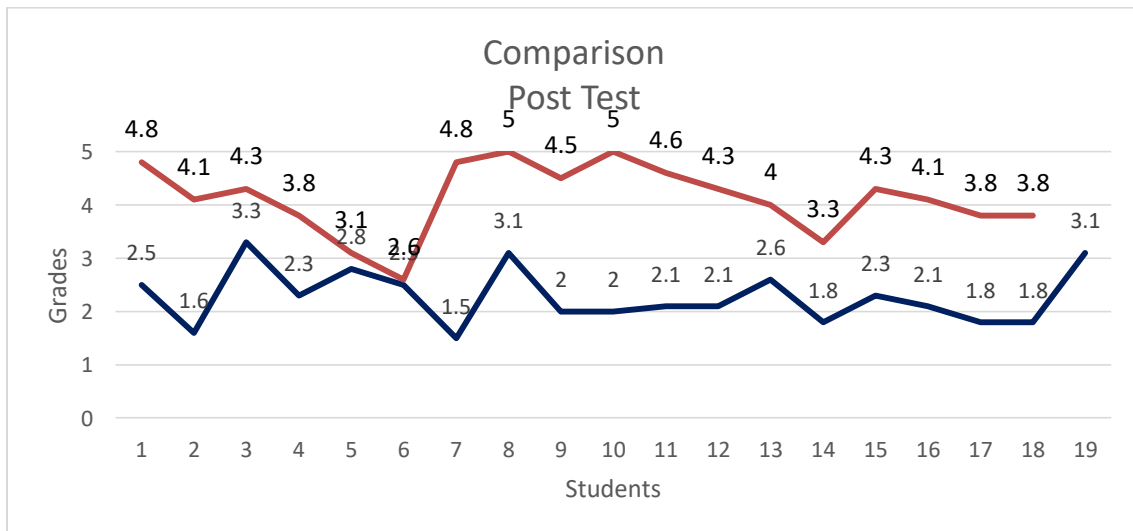
Figure 17 Post-test results Intervention group



Source: Own elaboration based on the test results

A visual comparison of both groups was necessary to analyze the peaks in their performance. The results show that the lowest peak in the graphic is 2.6 for the intervention group and that its highest peak is 5. For the control group the lowest peak is 1.5 and the highest is 3.6. This means that even the lowest performance student in the Intervention group is close in reading strategies performance to the majority of students in the control group (Fig. 18).

Figure 18 Comparisons Post-test results control and Intervention group.



Source: Own elaboration based on the test results

We can see that the participants of the experimental group showed an improvement, and this improvement was significant compared with their own results of the pre-test and test 1. Also comparing their results with the participants of the control group, they had a better performance. Based on these results it can be said that the participants of the experimental group were applying the reading strategies practice during the training which at the same time were very useful when they were trying to understand more what they were reading. Vandergrift (1992) and O'Malley et al. (1990) state/declare that language learning strategies (LLS) are deliberate cognitive steps which are used by learners to enhance comprehension, learning and retention of the target language, and which can be accessed for conscious report.

CHAPTER 6 Discussion

This chapter provides a detailed analysis of the key research findings presented in chapter 5, with reference to the research hypotheses that were established at the beginning of this project. The results of the study are also discussed in relation to previous research studies. The first analysis will be of the independent variables, then, the analysis of the relationship between the isolated variables with the dependent variable in order to reject or retain the hypothesis presented in this study. The results are discussed according to the particular objectives and they are intended to answer the research hypothesis presented at the beginning. First this chapter presents the use of reading strategies, followed by the texts related to students' career and whether there is a relationship between the texts used and the strategies developed with the students' performance on the reading skill. The last section is a brief summary of the chapter.

The hypotheses stated in this research aimed to test whether a reading strategies training could improve the reading performance of the participants. In order to set a context of usage, texts related to the field of medicine were our tool to measure performance in each stage of the intervention.

Noor (2011) claims that in any higher learning environment, reading is valued as the most important academic language skill for all second and foreign language learners. Students learn new information and become more competent in their subject matters through reading. For university students, it is useful to get a wide variety of strategies in order to succeed in their career. In the questionnaire applied to 249 students from the CEI, most of them (97%) considered that English will be useful in their professions.

However, the majority of them (87%) students were asked if they liked reading and they answered negatively to this question. Finally, half of them (50.6%) considered themselves efficient readers. This means that most of the students are conscious about the usefulness of learning English as a foreign language, but they are not accustomed to reading. It was found that university students spend a significant amount of time on reading newspapers, academic books and websites due to the demands for doing assignments, instead of for pleasure (Nor Shariza and

Amelia, 2007). Based on these needs, the development of the reading strategies was considered useful for the students at a university level.

Reading research in the L1 and L2 fields has shown that reading strategies can be taught to students, and when taught, they enhance students' performance on tests (Kornfeld, 2003; Macaro and Erler, 2008). For the intervention, the main objective was to introduce and measure the effectiveness of a training approach to the teaching of reading strategies through the use of texts related to students' major.

Strategies are used to promote, facilitate, enhance, and regulate learning, to acquire knowledge, to comprehend, recall and retain information. In this way strategies can contribute to better learning both directly and indirectly.

(Marín and Méndez, 2007, p.104).

Consequently, the kinds of strategies the students use are very important for achievement in their learning process. Also, Jacobs (1999) divided reading strategies into pre reading activities, guided reading and post reading, including the particular strategies in each of these phases or stages of reading. The classification of strategies used by this author is the same as the ones used in this research.

Harmer (2000) stated that teachers should keep in mind some principles. One of them was that prediction is a major strategy in reading. Before reading, students should participate in predicting or questioning and reflecting on the text, which can help them become aware of the reading text's contents and meaning. Also, it helps them to develop reading strategies that they can use to understand the text in a more efficient way.

Before the intervention, both groups took the pre-test in which the students' development of the reading strategies was tested immediately before the treatment (pre-test) and after it (post-test). As mentioned before, a pre-test was administered to make sure the participants in both groups were homogeneous in terms of their ability of using reading strategies. The control group had a mean of 3.4 against the mean of 3.2 of the intervention group. Hence, we can say that even when the control group had a higher mean than the intervention group, the two groups were homogenous in the beginning of the study.

The results of this study support the results obtained by the previous research studies in terms of positive effects of teaching reading strategies. In another study carried out in Quintana Roo at Universidad de Quintana Roo in 2006 by a group of professors focused on the different

language skills, such as reading, writing, speaking and listening and their relation with strategies. Macola (2006) found that before the training, students showed low scores on use of reading strategies; after the training students showed improvements and positive attitudes towards the training. Saman & Minoos (2010) investigated the effects of pre-reading activities on reading comprehension of L2 learners of science and technology majors they also found positive effects of their training; their findings revealed that better comprehension can be gained through resorting to pre-reading activities. Similarly Marzban & Akbarnejad (2013) found in their research that the experimental group did much better than the control group and consequently cooperative reading strategies were effective on improving reading comprehension of Iranian university students.

In this study during eight weeks, in two hours sessions, the participants of the experimental group were practicing pre-reading strategies; also they were working with while reading strategies, scanning, skimming and after reading strategies. After 4 weeks of training in the intervention, it was necessary to measure if there was any sort of advance in the students' reading strategy use, the results of this first partial test can be interpreted or explained by the struggle of the students with the comprehension process and with the use of the reading strategies.

As it was described in the previous chapter, some of the students had a very low performance even when they had had 4 sessions of strategy training. According to Snow (2002), comprehension is "the process of simultaneous extracting and constructing meaning through interaction and involvement with written language" (p. 11). While some parts of comprehension are automatic, others are complex and thoughtfully executed mental process (Kolic-Vehovec & Bajanski, 2006). Nevertheless, after seven weeks of training in the second partial post-test, students performed significantly better than in the first partial test. In the first partial test students obtained a mean of 2.2 and in the second partial test they got a mean of: 4.3. This means that the treatment had a positive effect.

According to Bialystok (1983), Gagne (1985), Dadour (1996), Johnson (1999), and Sano (1999), language learning strategies are 'teachable' and training language learners to use selected learning strategies can have positive effects on task performance and the language learning process. Also, in the final test, the experimental group obtained a mean of 4.1 which can be interpreted as a very good use of the reading strategies. Besides the control group obtained a

mean of 2.2. In other words, the treatment was successful and the experimental group performed significantly better than the control group. The results of this study and according to Cohen (1998), learning will be facilitated by making students aware of the range of strategies students from which they can choose during language learning and use. The most efficient way to strengthen learners' awareness is to provide strategy training. Also, numerous studies on learning strategies maintain that teaching strategies can facilitate students reading comprehension (Cohen, 1998; Chamot, 1999).

Prior research has established that the use of reading strategies significantly improves students' reading comprehension skill. Nevertheless, some research has been focused on teaching metacognitive strategies (Zhang, 2001); other studies investigated which strategy categories the students use more in their learning (Baker and Boonkit, 2013; Murrieta, 2003; Ehrman and Oxford, 1995). However, the present research intended to identify the reading strategies used by learners of English as a foreign language at university level.

Some of the theories that helped in the development of this present study were the constructivism theory, the schemata theory and the learning theory. The reason for basing this study on these three aspects was because all of them were involved in the training presented for this study. This is, each of the theories explained consider reading as a cognitive and active process in which strategies and texts related to students' previous experiences help them to understand texts. For the purpose of this research, the texts students read were health science texts. Referring to the constructivism theory, the use of strategies helped students to develop and improve their reading comprehension. The schema theory supported the use of reading strategies and states that through the use of familiar texts for the students they had a better comprehension of the text. And the learning theory, because meaning happens when new information is taken into a person's existing cognitive structure and is related to the previously learned content. Based on this theory students had to form new connections between this new information and the existing information.

The result of this study provides support for the educational value of strategy training in EFL students in reading. That is, the students who were taught reading by using reading strategies training techniques have significantly higher scores of comprehension than those who were not part of the intervention group. These findings agree with existing theories of reading comprehension. Researchers have determined that fluent readers use both their prior knowledge

and features in the text simultaneously and interactively, as well as use work-identification skills and comprehension strategies simultaneously and interactively (Tompkins, 2003). Pearson and Stephens (1994) report that constructivism is a term used by contemporary reading experts to explain how a reader processes texts. In the constructivist model, teachers do not transmit knowledge to passive learners; instead, learners actively construct meaning by relating new information to what they already know, using reasoning supported by strategies. Furthermore, as students learn, teachers gradually withdraw their support so that eventually students perform the task independently (Vygotsky, 1978).

According to Oxford's (1990) explicit instruction model, several major features such as the explicit explanations, teacher modeling, scaffolding and self-regulated use of strategies are provided by the teacher to enhance students' reading comprehension. Lapp, Fisher, and Grant (2008) also suggest the need for teachers to share guided reading through a gradual plan, which enabled students to be able to independently monitor their own reading comprehension.

The teacher's role is to introduce and encourage strategies that assist this understanding, in a non-formulaic way that helps students become increasingly metacognitive, that is aware of their own thinking process.

Hecker (2013).

There is a Chinese proverb that says, "A student is like a piece of blank paper on which teachers leave a mark." Teaching EFL students at the Uqroo how to master comprehension strategies to overcome the English reading difficulties and become lifelong and avid readers would be one of the best marks teachers and educators could leave on students in their lives.

During the intervention the teacher explained each strategy, gave examples of them and how students could use them, it was a constant interaction between teacher students and they started by working in groups and gradually they had to use those reading strategies independently so, students had to form new connections between the new information and the existing information.

According to Ausubel (1978) all learning happens the same way by being compared and contrasted with prior knowledge that exists in a person's cognitive structure. If a person has relevant content in his or her existing cognitive structure to which the new information can be related, then the learning can be meaningful. Likewise if the person does not have relevant content in his or her cognitive structure, then the new information can only be learned by rote. The key point here is that the process of learning does not depend on whether the content has to

be discovered by the learner through a discovery learning process or the content is given to the learner in the final form as is done in reception learning. With the use of text related to students' major it was expected that students could have relevant information to which the new information can be related, then the learning can be meaningful.

The findings of the present study also verify previous research findings. The study by Oxford et al. (1990), for example, explored the effects of strategy training in various international settings: Oxford and her five colleagues investigated the effects of strategy training on students learning Hebrew in Israel, students learning Danish in Denmark, students learning Spanish in the U.S, students learning English in France. The six researchers reported that their strategy training generally yield with the learners' needs in mind- can be a key element in creative, self-directed language learning.

In another study done by Falk-Ross (2002), they used indirect instruction of reading comprehension strategies with students from Midlands Technical College in Columbia. It was reported that after using the newly learned reading comprehension strategies, the students all improved their test scores by at least three grade levels.

In the school of Arts and Sciences at St. John Fisher College in the United States, Ballou (2012) researched on the use of Explicit Strategy Instruction to improve reading comprehension. Findings from the study suggest that, students' attitudes toward reading improved and their ability to use a wide variety of strategies increased after receiving explicit strategy instruction.

Another study was done by Marzban & Akbarnejad (2013). They studied the effect of cooperative reading strategies on reading comprehension of Iranian university students. Statistical results revealed that the experimental group did much better than the control group and consequently cooperative reading strategies were effective on improving reading comprehension of Iranian university students.

Another study carried out at the University of Quintana Roo in 2006, Macola (2006) studied reading strategies. Before the training students showed low scores on the strategies mentioned before; after the training students showed improvements and positive attitudes towards the training.

As in the present study, the objective was to provide reading strategies instruction directly or indirectly in order to improve the students reading ability in English. In most of the studies presented, there was an improvement on the student's reading comprehension and on the use of

the reading strategies. For this study, students were in contact with texts related to their major with the inclusion of different reading strategies: pre reading, while and post reading strategies. Based on the results obtained those strategies taught helped students to read in English more efficiently.

CHAPTER 7 Conclusions and Suggestions

An important goal of reading instruction is to help students become strategic readers, in the sense that they will be able to use effective reading strategies to gain better comprehension. Reading comprehension is a transferable skill and an important tool through the students' academic life; the institutions and their academic programs require that this skill be developed to guarantee that undergraduates and graduates can grasp information from diverse sources to update their knowledge daily. Unfortunately, teaching reading strategies has been taken for granted. The purpose of this research was to show evidence of how an effective reading strategies training can enhance students' comprehension using significant materials from their major.

The present research has revealed that the students' ability to skim and scan from texts related to their major was significantly enhanced through training in the use of reading strategies, including predicting, using contextual clues, using previous knowledge to guess the meaning of words (cognates) and summarizing. These strategies required a methodology carefully planned and re-adapted constantly being improved to suit the characteristics of the group. This is a sample of how the process of developing a language skill requires a thorough plan and its corresponding evaluation. Developing reading comprehension is not something improvised as simply making students deal with geographical questions; it is necessary to provide students with tools to help them to make the printed information part of their schemata.

At the beginning of the intervention students did not show any interest in their classes but this situation changed after each session: there was an increase in enthusiasm and commitment as they realized that this was a useful endeavor. Human beings feel more attracted to a process when the results are evident. If students are constantly reminded that they are in the right track, they feel that the effort is worth it. A student who is provided with constant feedback can identify what his strengths are as well as his weaknesses and work on them. Working with peers being in the same process makes the students alert and emphatic. They can compare their results and help each other if necessary. Some of them even mentioned that the strategies learned during the intervention have been proven useful in other subjects other than English.

The students found that reading pieces of information of their major in a second language is much more meaningful for them rather than reading about random unrelated topics as they usually did in their language class. Many of the books available in the Language Program at UQROO are meant for learners everywhere to achieve a certain level of English. In matters of the topics in the reading material, they are random and part of a communicative unit; however, unconsciously perhaps, this makes students not give the proper attention that will help them to learn from them. In the intervention, the reading materials about their major have proved their efficiency in enhancing students' attention and capacity of retention. In addition, results indicate that the application of these strategies was successful as even the lowest ranking student in the intervention group had a better performance than most students in the control group. The results obtained show evidence that a good training, even in a brief period, could be more beneficial and effective than a long term of 'traditional' random-text training to better the reading skill in the L2. Fan (2010) confirms this by explaining that comprehension strategy instruction, which focuses on teaching reading strategies to the students to help them become strategic readers and more self-regulated learners, seems not only promising but also necessary.

There are things, however, that are necessary to point out. For instance, it was reached the conclusion that sixteen hours for the workshop on reading strategies was not long enough to fulfill the goals stated at the beginning, but it was enough to show that this type of teaching should be included more frequently. The effect on the students leads to think that strategy training should be expanded to speaking, listening or writing. On the other hand, there were some students whom the training had little effect on. It is important to pay attention to the reasons for not having completely achieved the goal of making some participants of the experimental group improve and perform much better.

It is important that research of this nature be carried out longitudinally. The small amount of time available to get results in the intervention while being effective and solid, could have provided more opportunities to increase the positive impact on the students' reading performance. The significant improvement in the performance of the students tells us that the training given should be implemented as part of the language classes, integrating strategies, skills and styles so that every student with any learning style or preference can become a more successful learner.

A strategy is "effective" if it provides positive support to the students in their attempts to learn or use the foreign language (Cohen, Weaver, & Li, 1996). This research has proved that

reading strategies training should be incorporated into regular reading instructions so that the students acquire effective reading strategies to facilitate good comprehension. Strategy training must be included in the current syllabus of the English classes and for this, it is necessary to update teachers so that it could be applied successfully during the semesters.

Finally, it is important to add that the implementation of a combination of strategy training and meaningful academic-related material during a short period increased the reading skill of a single group. If the institution and authorities can consider these results, they could make their language courses much more effective creating undergraduates with life-time skills. If the scenario is the contrary, and the same processes are repeated, the outcome will remain just making students cover credits rather than learning a competency necessary for their future practice. We are in an era in which knowledge moves faster and faster; it is our duty as educators to ensure that our students can keep the pace.

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Appendix A Questionnaire

Encuesta sobre estrategias de lectura

Estimado estudiante este cuestionario fue diseñado para saber sobre tu interés por la lectura, las estrategias que utilizas para leer y sobre la importancia de la misma en el idioma inglés dentro de tu futura profesión. Podrás notar que esta no es una evaluación, el objetivo es conocer tus opiniones y esperamos contestes con toda honestidad.

Los datos que se recojan serán utilizados de forma anónima y solamente para fines investigativos por lo tanto no es necesario revelar tu identidad.

Información general

Carrera que estudias _____

Semestre: _____ Nivel de inglés que cursas: _____

Número de materias que cursas en este semestre: _____

Tiempo que llevas estudiando inglés (en la universidad): _____ Este curso es obligatorio u opcional _____

1) ¿Disfrutas del aprendizaje del idioma inglés? _____

2) ¿Cuántas horas le dedicas semanalmente al estudio del inglés? _____

Sobre la habilidad de lectura (en Español)

3) ¿Lees en Español? Si ___ No ___

4) ¿Te gusta la lectura? Si ___ No ___

5) ¿Las lecturas que realizas están relacionadas con tus estudios Si ___ No ___

6) ¿Las lecturas que realizas son para tu entretenimiento? Sí ___ No ___

7) Marca con una (✓) qué tipo de textos lees:

7.1 Periódicos _	7.4 Libros _____	7.7 Artículos científicos _____
7.2 Revistas _____	7.5 Cuentos cortos _____	7.8 Capítulos de libros _____
7.3 Comics _____	7.6 Novelas _____	7.9 Instrucciones

8) En la próxima sección, señala la opción que más se adecue a tu respuesta tomando en cuenta que:

1 significa " nunca".

2 significa " hago esto sólo de vez en cuando".

3 significa " a veces hago esto. (Cerca de 50 % del tiempo).

4 significa " mayormente".

5 significa " siempre ".

7. 10 Emails _____
7. 11 Subtítulos de películas _____
7. 12 Otro (Especifica) _____

8.1 Cuando lees tienes un propósito en mente. (estudiar, obtener información,, enterarte de un dato)	1	2	3	4	5
8.2 Te fijas en el título del texto para tener una idea de lo que va a tratar la lectura	1	2	3	4	5
8.3 Revisas con anticipación la lectura para tener una idea de su contenido, antes de iniciar la lectura.	1	2	3	4	5
8.4 Piensas sobre el contenido del texto y como este encaja en tu propósito de lectura	1	2	3	4	5
8.5 Hago una lectura rápida primero para revisar características como la organización y la extensión del texto.	1	2	3	4	5
8.6 Utilizas pistas de contexto para comprender mejor lo que lees. (tablas, figuras , imágenes, subrayados, itálicas, negritas etc.	1	2	3	4	5
8.7 Mientras lees piensas en lo que sabes sobre el tema del texto para ayudarte a entender la lectura	1	2	3	4	5
8.8 Mientras lees, tomas nota para ayudarte a comprender la lectura.	1	2	3	4	5
8.9 Encierras, subrayas o haces notas en el texto para ayudarte a comprender la información	1	2	3	4	5
8.10 Tratas de adivinar el significado de palabras o frases desconocidas	1	2	3	4	5
8.11 Revisas para ver si lo que habías pensado sobre el texto era real o no	1	2	3	4	5
8.12 Realizas un resumen mental de la lectura	1	2	3	4	5
8.13 Analizas críticamente y evalúas la información presentada en el texto.	1	2	3	4	5
8.14 Otro especifica _____	1	2	3	4	5

9) ¿Te consideras un lector eficiente? Sí _____ No _____

¿Por qué? _____

10) ¿Consideras que el aprendizaje del inglés te será de utilidad en el ejercicio de tu profesión?

Sí _____ No _____

Muchas gracias por tu colaboración.

Appendix B Pre Test

Prueba de comprobación de estrategias de lectura

Nombre _____ Carrera que estudia _____

Semestre _____ Nivel de Inglés _____

Ejercicio 1. (5 minutos)

A continuación va a leer un texto que se titula *A Tour Through The Digestive System*. Antes de leerlo escriba su opinión acerca de lo que trata el texto y cuáles son las partes que lo componen.

Prueba de comprobación de estrategias de lectura

Nombre _____

Ejercicio 2. Lea rápidamente el siguiente texto y escriba en español si su suposición acerca del contenido del texto fue acertada. (5 minutos).

Ejercicio 3. Subraye las palabras que no conoce en el texto.

A TOUR THROUGH THE DIGESTIVE SYSTEM

1. From mouth to anus your intestinal tract is a 25-foot long line. The food is taken in at one end and waste is expelled from the other. During the ride, nutrients are taken off the food and absorbed into the bloodstream according to the body's needs. The whole process is called digestion.
2. Digestion begins in the brain. Before your meal, you imagine how good the food is going to taste. Your eyes and your nose get your body and mind in the mood for food, and the secretion of digestive juices begins. Anticipating eating gets the intestinal tract ready for what it has to do.
3. Then the ingestion phase comes. It consists on placing the food into your mouth where your teeth break the food down into smaller particles.
4. Chewing breaks up the food fiber so that the digestive enzymes have access to the contents inside and saliva lubricates the food. Once the food is mixed with the saliva, the bolus becomes soft and the food is pushed down the esophagus as you swallow it. Taking small bites, chewing well and swallowing slowly prepare the food for the next part of the journey.
5. The gastric phase begins when the food enters the stomach through the esophagus. The stomach is your body's processor. Its lining secretes gastric juice and enzymes which dissolve the food. The stomach muscles also keep the food in the stomach long enough to break the food down from solid to liquid.

Ejercicio 4. De acuerdo con la lectura, marque (V) si las siguientes oraciones son verdaderas o (F) si son falsas.

1. ___ 1. The digestive process begins... Digestion begins when you place food into your mouth.
2. ___ The digestive enzyme is contained in the stomach juices.
3. ___ The gastric juices and enzymes in the stomach turn the food into liquids.
4. ___ The saliva has the function of lubricating the food.
5. ___ Biting, chewing and swallowing appropriately makes the digestion process easier.
6. ___ The stomach dissolves the food: breaking the food down from solid to liquid.

Ejercicio 5. Complete brevemente en español las oraciones de acuerdo con la información contenida en el texto.

2. The function of the teeth is ...
3. The function of the saliva is...
4. During the gastric phase the stomach.

Exercise 6

De acuerdo con la información contenida en el siguiente texto conteste en español las preguntas.

Many attempts have been made to explain longevity. Some explanations have concentrated on dietary factors, others on climate or the amount of exercise taken but all have been inconclusive. In fact, there is no need to search for environmental or even psychological considerations when trying to explain longevity. By far the most likely explanation is that longevity is the result of genetic factors.

1. What explanations are rejected?
2. Do you agree with the author?
3. Why?

Appendix C

Validación de Instrumento de comprobación de estrategias de lectura 1 de la tesis de la Lic. Melanie Lara Sima.

Para llevar a cabo la validación del instrumento presentado por la Lic. Lara se decidió aplicar el ejercicio a manera de pilotaje con uno de mis estudiantes de 3er semestre de la licenciatura en lengua inglesa el cual no ha tenido un contexto previo de aprendizaje de lenguas salvo el que ha tenido en su clase de inglés 1 durante la licenciatura.

El instrumento fue aplicado en mi presencia para poder corroborar que los objetivos de cada ejercicio planteados por la tesista se cumplan y contribuyan al objetivo de su investigación.

Se respetó el tiempo señalado para cada ejercicio que así lo marcaba para conocer la viabilidad del tiempo otorgado.

Los resultados obtenidos se presentan en la siguiente tabla:

Ejercicio	Objetivo planteado por la tesista	¿Se cumple?	Observaciones
1	Esta primera parte está dedicada a comprobar que los alumnos pueden tener una idea general del contenido y las partes que contiene un texto a partir de su título. (Predicting)	SI	Es posible debido al uso de cognados del español. Genera una idea general que concuerda con el texto a leer.
2	Este ejercicio está dedicado a comprobar si los estudiantes son capaces de saber el contenido de un texto a partir de la realización de una lectura rápida del mismo (Skimming)	SI	Es posible. Algunas palabras son cognados. La longitud es adecuada. Posee un grado de dificultad pero el objetivo sólo es skimming
3	Comprobación del Ejercicio 1 (predicting)	SI	Es un buen complemento para verificar lo establecido como objetivo en el ejercicio 1.
4	Este ejercicio está dedicado a saber si los estudiantes pueden inferir significados de palabras por su composición (cognadas)	SI	Al aplicarlo en el pilotaje de validez el estudiante presentó un gran número de dudas aún

	o a partir del sentido de la oración		cuando las palabras fueron cognadas; no obstante, es el objetivo: señalar el estado de habilidad meta cognitiva del estudiante previo a las intervenciones
5	Este ejercicio se diseñó para comprobar comprensión de la lectura en términos generales.	SI	El ejercicio se encuentra bien organizado, no presenta oraciones con estructura negativa, los reactivos no son del tipo geográficos lo que obliga la estudiante a pensar a profundidad sobre su respuesta. Los reactivos son suficientes y se cumple con lo planteado en los objetivos.
6	Este ejercicio se diseñó para comprobar comprensión de la lectura en términos generales., al igual que el anterior	SI	Apropiado debido a que las respuestas no se encuentran textuales. El estudiante no pudo completar en su totalidad los reactivos pero es posible debido a falta de entrenamiento metacognitivo que es lo que se busca identificar por medio de este ejercicio.
7	En este ejercicio se cambia de tema y está dedicado a saber la capacidad de un estudiante para resumir la información de un texto.	SI	Adecuado debido a que se debe contestar en español y las preguntas se encuentran redactadas por medio de cognados gemelos al español.

Debido al análisis anterior se califica al instrumento como: VÁLIDO.

M.Ed. Rafael Alberto Velasco Argente
Chetumal, 25 de mayo de 2015.

Appendix D Post Test

Prueba de comprobación de estrategias de lectura (2)

Nombre _____ Carrera que estudia _____

Semestre _____

Ejercicio 1. (5 minutos)

A continuación va a leer un texto que se titula Therapy. Antes de leerlo escriba su opinión acerca de lo que trata el texto y cuáles son las partes que lo componen

- a) Qué opinas sobre el contenido de un texto que se titula Therapy
- b) Según tu opinión, cuáles serían las partes que componen este texto?

Esta primera parte está dedicada a comprobar que los alumnos pueden tener una idea general del contenido y las partes que contiene un texto a partir de su título. (Predicting)

Prueba de comprobación de estrategias de lectura

Nombre _____ Carrera que estudia _____

Semestre _____

Ejercicio 1. (5 minutos)

A continuación va a leer un texto que se titula Therapy. . Antes de leerlo escriba su opinión acerca de lo que trata el texto y cuáles son las partes que lo componen

- a) Qué opinas sobre el contenido de un texto que se titula Therapy
- b) Según tu opinión, cuáles serían las partes que componen este texto?

Prueba de comprobación de estrategias de lectura

Nombre _____

Ejercicio 2. Lea rápidamente el siguiente texto para saber de qué se trata (5 min)

Este ejercicio está dedicado a comprobar si los estudiantes son capaces de saber el contenido de un texto a partir de la realización de una lectura rápida del mismo (Skimming)

Therapy

Therapy is the attempted remediation of a health problem, usually following a diagnosis. . In the medical field, it is usually synonymous with treatment. The English word *therapy* comes via Latin *therapīa* and literally means "curing" or "healing". There are many types of therapy but in this article only four types are mentioned

Radiotherapy is the use of radiation in controlled doses to treat disease. It works by damaging the DNA of malignant cancerigenous cells and can be given both externally and internally.

Radiotherapy may be used:

- As *curative* treatment, for example to shrink or eliminate tumors. It may be used with other treatments, such as surgery or chemotherapy.
- As *palliative* treatment to reduce pain and other symptoms of cancer or other disease.

Chemotherapy is the treatment of disease by means of chemicals that have a specific toxic effect upon the disease-producing microorganisms or that selectively destroy cancerous tissue. The main purpose of chemotherapy is to kill cancer cells.

As with radiotherapy, Chemotherapy may be given with a *curative* intent, or it may aim to prolong life or to reduce symptoms: (palliative chemotherapy).

Chemotherapy can cure some types of cancer. In some cases, it is used to slow the growth of cancer cells or to keep the cancer from spreading to other parts of the body. When a cancer has been removed by surgery, chemotherapy may be used to keep the cancer from coming back. Chemotherapy also can ease the symptoms of cancer, helping some patients have a better quality of life.

Psychotherapy, or "talk therapy", is a way to treat people with a mental disorder by helping them understand their illness. It teaches people strategies and gives them tools to deal with stress and unhealthy thoughts and behaviors. Psychotherapy helps patients manage their symptoms better and function at their best in everyday life.

Physiotherapy is a healthcare profession that assesses, diagnoses, treats, and works to prevent disease and disability through physical means. Physiotherapy helps restore movement and function when someone is affected by injury, illness or disability. Physiotherapists are experts in movement and function who work helping their patients to overcome movement disorders, which a) may have been present from birth, b) acquired through accident or injury, or c) are the result of ageing or life-changing events. They also work with patients in rehabilitation after orthopedic surgery.

Ejercicio 3. Diga si su opinión acerca del contenido del texto fue acertada.

Comprobación del Ejercicio 1 (predicting)

Ejercicio 4. Subraye las palabras del texto que no comprende.

Este ejercicio está dedicado a saber si los estudiantes pueden inferir significados de palabras por su composición (cognadas) o a partir del sentido de la oración

Ejercicio 5. De acuerdo con la lectura, marque (V) si las siguientes oraciones son verdaderas o (F) si son falsas.

Este ejercicio se diseñó para comprobar comprensión de la lectura en términos generales.

1. _____ Therapy is a treatment to cure or reduce a health problem.
2. _____ A patient with
3. _____ The curative and the palliative system are the same because they can cure cancer.
4. _____ Psychotherapy and Physiotherapy are different because one is dedicated to mental problems and the other to physical problems.
5. _____ Both radiotherapy and chemotherapy are used to destroy cancer cells.

Ejercicio 6. Complete brevemente *en español* las oraciones de acuerdo con la información contenida en el texto.

Este ejercicio se diseñó para comprobar comprensión de la lectura en términos generales., al igual que el anterior.

1. The purpose of a curative therapy is
2. The purpose of a palliative therapy is
3. Psychotherapy is a treatment
4. Physiotherapy is a treatment

Exercise 7

Conteste *en español* las preguntas de acuerdo con la información contenida en el siguiente texto.

En este ejercicio se cambia de tema y está dedicado a saber la capacidad de un estudiante para resumir la información de un texto.

ENDOSCOPY. Endoscopy is a way of examining parts of the body which are not visible from the outside. A typical endoscope is a flexible tube which is inserted through one of the main orifices (openings) such as the anus or the mouth. Rigid endoscopes, which cannot be bent are also used but are inserted through small incisions (surgical cuts.) The shaft contains several channels to transmit light from the outside and images from inside and to allow different instruments to be used.

Endoscopes can be used for the following:

- To provide diagnostic information
- to excise (cut out) diseased tissue or growth such as polyps
- To clear obstructions
- To take a biopsy

- To cauterize a site of bleeding by applying heat.
1. Compare the two kinds of endoscopes mentioned in the text.
 2. Many people say that endoscopy is a very efficient way to examine external organs. Do you have a similar opinion?
 3. Why?

Appendix E

Validación de Instrumento de comprobación de estrategias de lectura 2 de la tesis de la Lic. Melanie Lara Sima.

Para llevar a cabo la validación del segundo instrumento presentado por la Lic. Lara se decidió contrastarlo con el primer instrumento aplicado a manera de verificar si cumple con ser un instrumento equivalente viable para medir la existencia y/o un grado de avance en el desempeño de los estudiantes después de las intervenciones de la investigación.

Los resultados obtenidos se presentan en la siguiente tabla:

Ejercicio	Objetivo planteado por la tesista	¿Se cumple?	Observaciones
1	Esta primera parte está dedicada a comprobar que los alumnos pueden tener una idea general del contenido y las partes que contiene un texto a partir de su título. (Predicting)	SI	Cumple con las características que posee el primer instrumento aplicado al inicio de las intervenciones.
2	Este ejercicio está dedicado a comprobar si los estudiantes son capaces de saber el contenido de un texto a partir de la realización de una lectura rápida del mismo (Skimming)	SI	Posee características similares.
3	Comprobación del Ejercicio 1 (predicting)	SI	Equivalente.
4	Este ejercicio está dedicado a saber si los estudiantes pueden inferir significados de palabras por su composición (cognadas) o a partir del sentido de la oración	SI	Equivalente.
5	Este ejercicio se diseñó para comprobar comprensión de la lectura en términos generales.	SI	Equivalente.

6	Este ejercicio se diseñó para comprobar comprensión de la lectura en términos generales., al igual que el anterior	SI	Equivalente.
7	En este ejercicio se cambia de tema y está dedicado a saber la capacidad de un estudiante para resumir la información de un texto.	SI	Equivalente.

Debido al análisis anterior se califica al instrumento como: VÁLIDO.

M.Ed. Rafael Alberto Velasco Argente

Appendix F The Reading Workshop

The objective of the reading workshop is to develop some reading strategies that will help the students develop their reading skills.

The strategies that are going to be developed are:

Pre-reading strategies

Predicting context from title

Predicting vocabulary contained in a text

While Reading strategies (using context to help with meaning)

Scanning

Using contextual clues

Using previous knowledge to guess meaning of words (cognates)

Skimming

After Reading strategies

Surveying and Summarizing the text

The classes will be conducted

- To a group of students from Medicine and Nursing who are registered in pre intermediate English.
- During an eight weeks period
- In a two-hours-a-week class.
- By the author of this thesis.

Organization of the course		
Week 1	Entrance exam	Types of reading (skimming, scanning, intensive and extensive)
Week 2 Text: The Human Body	Predicting content from title	Predicting vocabulary contained in the text
Week 3 Text: Composition of the Human Body	Skimming	

Week 4 Text: Hypertension	Contextual clues	
Week 5 Text: Anemia	Surveying a text (looking for an appropriate text)	
Week 6 Text: The Urinary System	Application of previous strategies	
Week 7 Text: Nervous System: Facts, Function and Diseases	Application of previous strategies	
Week 8 Text: Infectious Diseases	Application of previous strategies	End-of-intervention exam

Week 1.

Pre test

Explanation of the workshop: purpose-objective, mechanics, expected results

Different types of Reading

Convincing the students of the different types of reading (comparing with Spanish): Skimming, scanning, extensive, and intensive

Describing the different types of Reading giving examples.

Exercise in groups identifying the different types of Reading in: bus schedule, magazine article, short story, novel, newspaper, text book, a poem, a recipe an e-mail from a friend, a table of contents in a book, etc.

The discussion is if the students make guesses after reading the title, after reading the first sentence, if they have to read every word, if they have to understand each word in the text, etc.

Have the students write a one sentence perception of what they learned in the class.

Homework, select an example of the four types of reading studied and be ready to present it to the rest of the class.

Week 2. Predicting content from title / Predicting vocabulary contained in the text.

Quiz on skills to check the acquisition of the previous lesson.

Part 1. To be done individually. The students number a page in their notebooks from 1 to 6 and select and write a) b) or c) in their notebooks.

This exercise is to be checked by their peers.

1. Skimming is:

Used to understand the "gist".(essential information)

Used to find a particular piece of information.

Used for pleasure and general understanding.

2. Scanning is:

used to understand the "gist".

used to find a particular piece of information.

used for pleasure and general understanding

3. Extensive reading is:

used to understand the "gist".

used to find a particular piece of information.

used for pleasure and general understanding.

4. Intensive reading is:

used to get a general idea.

used to find specific information.

used when reading for pleasure.

5. Use _____ to find a bus departure time to go to the Cancun airport directly.

skimming

scanning

extensive Reading

6. Finding your favorite TV program is an example of:

skimming

scanning

extensive reading

Part 2. To be discussed in the class orally

Do you read all the words in every document in your native language?

Are reading skills in your native language and in English similar?

Part 3 Explanation and discussion of predicting

Pre reading skills are essential for a better understanding of what we read:

Why is predicting helpful?

How do we predict?

What can you do to predict some vocabulary? Why is it helpful?

How did you do the vocabulary predicting exercises in the entrance exam we did last week? Was it easy to do?

How can you predict the content of a text? Why is this helpful?

Exercise 1. Think about 5 statements that you can make about a text whose title is OBESITY by which you show your prior knowledge on this topic.

How do you personalize the content? By bringing information to the text

Why is this helpful?

Exercise 2. Personalize your knowledge about a text whose title is The Human body

Write five words that you think are expressed in the text.

Why is this exercise useful if you want to learn more about it by reading a text on this topic?

The students are given the text and they must:

Make a quick reading of the text to find out if their predictions were correct.

Discuss their prediction of the context with a partner (or group) and decide in what percentage their predictions were correct.

The students must decide what type of Reading they are going to do of the text The Human Body.

The human body

The human body includes the entire structure of a human being and comprises a head, a trunk (which includes the thorax and abdomen), and extremities: arms and hands and legs and feet.

Every part of the body is composed of various types of cells, the fundamental unit of life.

At maturity, the estimated average number of cells in the body is given as 37.2 trillion. This number is stated to be of partial data and to be used as a starting point for further calculations.

The number given is arrived at by totaling the cell numbers of all the organs of the body and cell types.

The composition of a human body is made up of a number of certain elements including carbon, calcium and phosphorus.

The study of the human body involves anatomy and physiology. The human body can show anatomical non-pathological anomalies known as variations which need to be able to be

recognized. Physiology focuses on the systems and their organs of the human body and their functions. Many systems and mechanisms interact in order to maintain homeostasis.

Part 4. While Reading skills. Contextual clues

The use of contextual clues can be one of the best ways to improve students' reading skills. Realizing that a text can be understood in a general sense by using contextual clues can go a long way towards helping students cope with increasingly difficult texts. At the same time, the use of contextual clues can also provide a means by which students can rapidly increase their existing vocabulary base.

- Exercise 3. Write on the board:

The student decided that he needed a _____ to understand the vocabulary and do his homework well.

I am going to _____ a text about The Human Body.

The bodies of most animals are different from the _____ body-

The human body is divided into _____ main parts.

Discussion of the answers. (The student may say the words in Spanish, the teacher writes these words in English on the board).

- Exercise 4: Underline the words that you don't know and that you cannot guess their meaning from the context.

- Explanation of cognate words. Example: the Mayan Calendar

- Explain false cognates. Example library

- Exercise 5: Underline the cognates and the quasi-cognates in the text

Guessing words from context. Explanations and examples

- Exercise 6: guess the meaning of the following words

Beings

head

arms, hands, legs, feet

starting point

further

totaling

known as

- Homework: Answer the following according to the text The Human Body. Do not look up the words in the dictionary. Say if the statements are True (v), False (f) not mentioned /not expressed (NSM)

1. The human body is divided into three parts: the head, the trunk and the extremities.
2. The legs are part of the trunk.
3. Children and adults have the same number of cells
4. Oxygen is one of the elements of the human body
5. Variations are part of the anatomy
6. Systems and organs are also a part of anatomy

- Week 3.

Checking and discussing the homework

Skimming.

Determining what is important and diminishing focus on less important ideas or pieces of information

Skimming is the reading style used by flexible readers when their purpose is *to quickly obtain a general idea about the reading material*. Skimming is most useful when you have to read a large amount of material in a short amount of time. When skimming, you should identify the general idea and the main ideas in each paragraph and ignore the details in supportive sentences. Because you are only looking for the general and main ideas, you read fast and only obtain a lower level of comprehension, which is to be expected.

Skimming by using the title

You need to be active all the time when you are reading. It is useful, therefore, before you start reading to try to actively remember what you know, and do not know, about the subject and then formulate questions based on the information you have. You can then answer these questions.

Title, sub-titles and section headings can help you formulate questions to keep you interacting.

The title is a summary of the text. Sometimes we have to make quick decisions based on only the title. Therefore it is useful to try to understand it well.

It is a good idea to ask yourself the following questions, based on the title.

Is this text relevant to your needs? Is it related to the subject you are studying?

What do you expect to learn from the text? Ask yourself some questions that you expect the text to answer.

Steps for skimming the text:

- a) Read the first paragraph completely.

- b) Read the first sentence in each paragraph
- c) Read the last paragraph completely.

This not only gives you what the text is about, its gist, but also orients you to how this text fits the author's purpose. Furthermore, it provides you with an overview of the author's statement of the most important points.

It is necessary that you ignore words or sections you don't immediately understand.

In most academic writing, the text is organized clearly with an introduction and a conclusion. The introduction gives you an idea of what the text is going to be about and the conclusion shows that this is what it has been about. You can therefore get a good idea of the overall content of a text by reading the first and last paragraphs of a text. This should help you get a feeling for the content of the text.

Having a good idea of the content of the text will make it easier to read in detail. Familiar texts are easier to read.

Skimming by surveying the text.

This step helps you get the information necessary to focus on what is important at a glance.

Steps:

- a) Read the title. This helps your brain begin to focus on the topic.
- b) Read each heading and subheading. This helps you create a framework in your mind before you begin to read. This framework provides a structure for the thoughts and details to come.
- c) Review any graphics. Charts, maps, diagrams, pictures and other visual aids are there to make a point. Publishers will not include these items in a text unless they are supposed to add significantly to the text.
- d) Review any reading aids. This includes italics, objectives, definitions, study questions. These aids are there to help you sort, comprehend, and remember. Use them to your advantage.

Skimming a text, using section headings. In some academic writing, the text is organized through the use of headings and sub-headings. You can therefore get a good idea of the overall content of a text by reading the headings and sub-headings first. This should help you get a feeling for the content and organization of the text. In many cases that will be enough, but if it isn't, you will now have a good idea of the content of the text and you will find it easier to read in detail. Familiar texts are easier to read.

Skimming paragraphs

In most academic writing, the paragraph is a coherent unit, about one topic, connected to the previous and next paragraphs. Paragraphs are organized internally and the first sentence of each paragraph is often a summary of, or an introduction to, the paragraph. You can therefore get a good idea of the overall content of a text by reading the first sentence of each paragraph. This should help you get a feeling for the structure of the text.

Decide which sentence contains the words that best describe the idea of the paragraph.

The sentence that contains these words is the topic sentence.

The text *Marriage, Family, and the Home* begins with the following chapter:

The Family today

The traditional image of the average family in the United States shows Mom taking care of her two kids and a house in the suburbs while Dad drives off to work. In fact, such a family is relatively rare today, both in the United States and in many other countries. Meanwhile, new forms of the family unit have become increasingly common.

Then it has the following subheadings:

Two-career families

Single parent families

Step families

Exercises:

- 1.- Look at the title of the text. Predict what the text contains.
- 2.- Read the introductory paragraph and headings. Read sentences a-d below and choose the sentence that best states the main idea of the text.

In the United States, traditional families do not have the problems that other types of family units do. Stepfamilies are increasingly common in the United States but are likely to have many problems. In the United States, the number of traditional family units is decreasing and new forms of family units are becoming more common Two-career families, single-parent families and stepfamilies are the main types of family units in the United States.

Exercise 1: on predicting the contents of the text *Composition of the Human Body*

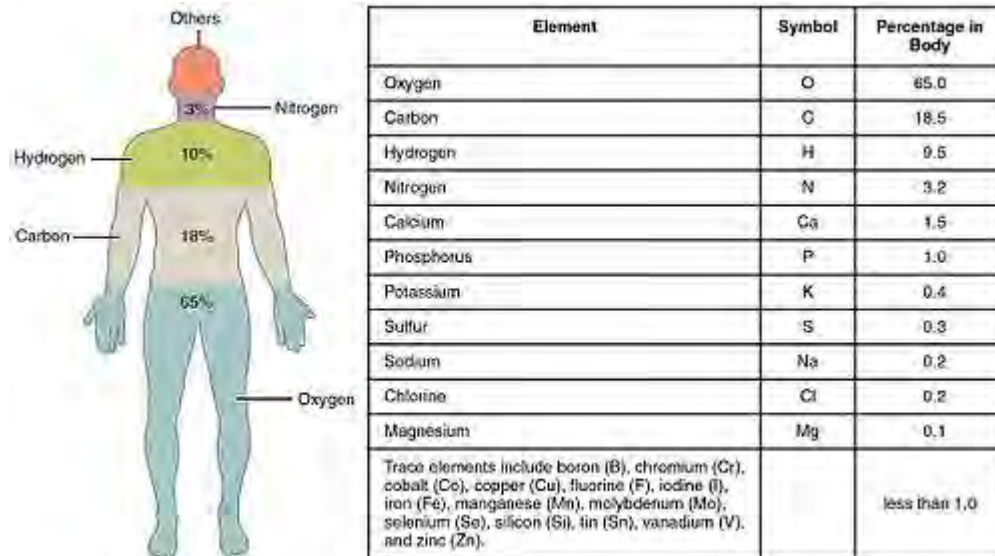
Exercise 2: on predicting the vocabulary contained in the text-

Exercise 3: on realizing previous knowledge of the topic

Exercise 4. On finding the main idea of the text. The text is about.....

Checking exercises 1, 2, 3 and 4.

Composition of the Human Body



The main elements that compose the human body are shown from most abundant, by mass, to least abundant.

The average adult body contains between 5 and 5½ liters of blood and approximately 10 liters of interstitial

The composition of the human body can be referred to in terms of its water content, elements content, tissue types or material types. The adult human body contains approximately 60% water and so makes up a significant proportion of the body, both in terms of weight and volume. Water content can vary from a high 75% in a newborn infant to a lower 45% in an obese person. (These figures are necessarily statistical averages).

The vast majority of cells in the human body are not human at all; rather they are of bacteria, archaea and methanogens such as Methanobrevibacter smithy. The largest proportion of these forms the gut flora. The whole population of microbiota include microorganisms of the skin and other body parts and this altogether is termed as the human microbiome

The proportions of the elements of the body can be referred to in terms of the main elements, minor ones and trace elements. Material type may also be referred to as including water, protein, connective tissue, fats, carbohydrates and bone.

Exercise 5. Answer the following questions *in Spanish*

1. What is the proportion of the interstitial fluid in relation to the blood?
2. In what terms can the composition of the human body e referred to?

3. Why does the text say that the vast majority of cells in the human body are not human at all?
4. How are the proportion of the elements of the body subdivided?

Homework: Read the text Human physiology following the strategies developed so far in our workshop and bring a summary of the text in one sentence in Spanish.

Human physiology is the science of the mechanical, physical, bioelectrical and biochemical, functions of humans in good health, their organs, and the cells of which they are composed. Physiology focuses principally at the level of organs and systems. Most aspects of human physiology are closely homologous to corresponding aspects of animal physiology, and animal experimentation has provided much of the foundation of physiological knowledge. Anatomy and physiology are closely related fields of study: anatomy, the study of form, and physiology, the study of function, are intrinsically related and are studied in tandem as part of a medical curriculum. The study of how physiology is altered in disease is pathophysiology.

Week 4.

1. Ask students what they do when they are reading a text in their native language and do not understand a specific word.
2. Ask students what they do when they are reading a text in English and do not understand a specific word.

The use of contextual clues can be one of the best ways to improve students' reading skills. Realizing that a text can be understood in a general sense by using contextual clues can go a long way towards helping students cope with increasingly difficult texts. At the same time, the use of contextual clues can also provide a means by which students can rapidly increase their existing vocabulary base.

Activity: Awareness rising concerning the use of contextual clues, practicing contextual reading

- Write this example sentence on the board: "Tom decided that he desperately needed the 'aaabcde' if he were to solve the problem"
- Ask students what 'aaabcde' means.
- Once students have established that they don't know what a 'aaabcde' is, ask them to guess at what it might be.
- Ask students what part of speech a 'aaabcde' is (i.e. verb, noun, preposition etc.)
- Have students explain how they arrived at their guesses, which clues did they use?

- Explain the concept of reading in "chunks" i.e. looking at the text surrounding the unknown word for clues.
- Ask students to identify the probable vocabulary areas that may be used in the example article.
- Explain the importance of activating vocabulary by first quickly glancing at the text to be read. This idea is very important as the brain will begin to focus on related concepts thus preparing the student for what is to be read.
- Point out that by using all of these clues (i.e. “chunking”, part of speech, logical deduction, vocabulary activation), students can arrive at a much fuller understanding of difficult texts - *even if they do not understand each word*

Reading Clues

Deduction - What does the sentence concern? Which words does the *unknown* word seem to relate to?

Part of Speech – Which part of speech is the unknown word? Is it a verb, noun, preposition, adjective, time expression or something else?

Chunking - What do the words *around* the unknown word(s) mean? How could the unknown word(s) relate to those words? - This is basically deduction on a more local level.

Vocabulary Activation - When quickly skimming through the text, what does the text seem to concern? Does the layout (design) of the text give any clues? Does the publication or type of book give any clues to what the text might be about? Which words can you think of that belong to this vocabulary category?

Appendix G Test_1 Week 4

Exercise 1. Make logical guesses about the meaning of the 3 unknown words in the following paragraph.

Systems

The human body consists of many interacting systems. Each system contributes to the maintenance of homeostasis, of itself, other systems, and the entire body. A system consists of two or more organs, which are functional collections of tissue. Systems do not work in isolation, and the well-being of the person depends upon the well-being of all the interacting body systems. Some combining systems are referred to by their joint names such as the nervous system and the endocrine system known together as the neuroendocrine system.

I. Read the following text about Hypertension

Hypertension

By hypertension we are referring to arterial hypertension. For other forms of hypertension, see Hypertension (HTN or HT), also known as high blood pressure or arterial hypertension,

Hypertension is a chronic medical condition in which the blood pressure in the arteries is elevated. Blood pressure is expressed by two measurements, the systolic and diastolic and pressures, which are the maximum and minimum pressures, respectively, in the arterial system. The systolic pressure occurs when the left ventricle is most contracted; the diastolic pressure occurs when the left ventricle is most relaxed prior to the next contraction. Normal blood pressure at rest is within the range of 100–140 mmHg systolic and 60–90 mmHg diastolic. Hypertension is present if the blood pressure is persistently at or above 140/90 millimeters mercury (mmHg) for most adults; different criteria apply to children.

Hypertension usually does not cause symptoms initially, but sustained hypertension over time is a major risk factor for hypertensive heart disease, coronary artery disease, stroke, aortic aneurysm, peripheral artery disease and chronic kidney disease.

Hypertension is classified as either primary (essential) hypertension or secondary hypertension. About 90–95% of cases are categorized as primary hypertension, defined as high blood pressure with no obvious underlying cause. The remaining 5–10% of cases is categorized as secondary hypertension, defined as hypertension due to an identifiable cause, such as chronic kidney disease, narrowing of the aorta or kidney arteries. Or an endocrine disorder such as excess aldosterone, cortisol, or catecholamines.

Dietary and lifestyle changes can improve blood pressure control and decrease the risk of health complications, although treatment with medication is still often necessary in people for whom lifestyle changes are not enough or not effective. The treatment of moderately high arterial blood pressure (defined as >160/100 mmHg) with medications is associated with an improved life expectancy. The benefits of treatment of blood pressure that is between 140/90 mmHg and 160/100 mmHg are less clear, with some reviews finding no benefit and other reviews finding benefit.

Exercise 2. Say if the statements are True (v), False (f) not mentioned /not expressed (NSM).

1. Hypertension and high blood pressure are synonymous.
2. Systolic pressure refers to the minimum pressure.
3. People believe that the person has high blood pressure when the maximum pressure is more than 140, not when the minimum is more than 90.
4. Hypertension is very dangerous because it can lead to other conditions like a stroke
5. If you have a kidney disease, it is because you have high blood pressure.
6. The blood pressure can be controlled by being on a diet.
7. Children rarely have high blood pressure.

Homework: (to be handed in in the next class)

Do you know a person who has high blood pressure?

Write information about this person in a chart: name, age, symptoms, usual pressure count, name of medication he is taking and dosage if you don't know any person, invent the information.)

Week 5

Collect the homework. Have some students read their charts. Group discussion.

Exercise 1. Predict the contents of the text you are about to read, whose title is Anemia

Exercise 2: Predict the vocabulary used in the text

Exercise3 : Skim through the text to find the main idea

Checking exercises 1, 2 and 3

Exercise 4: Underline the words that you can't guess their meanings

Exercise 5. Checking the overall meaning of the text

Anemia

Anemia: The condition of having a lower-than-normal number of red blood cells or quantity of hemoglobin. Anemia diminishes the capacity of the blood to carry oxygen. Patients with anemia may feel tired, fatigue easily, appear pale, develop palpitations, and become short of breath. Children with chronic anemia are prone to infections and learning problems. The main causes of anemia are bleeding, hemolysis (excessive destruction of red blood cells), underproduction of red blood cells (as in bone marrow diseases), and underproduction of normal hemoglobin (as in sickle cell anemia and in iron deficiency anemia).

Women are more likely than men to have anemia because of menstrual blood loss. In children, anemia is most commonly due to insufficient iron in the diet. Anemia is also often due to gastrointestinal bleeding caused by medications, including such common drugs as aspirin and ibuprofen.

Anemia a condition in which there is reduced delivery of oxygen to the tissues; it is not actually a disease but rather a symptom of any of numerous different disorders and other conditions. The World Health Organization has defined anemia as a hemoglobin concentration below 7.5 mmol/L (12 g/dL) in women and below 8.1 mmol/L (13 g/dL) in men. SYMPTOMS. Mild degrees of anemia often cause only slight and vague symptoms, perhaps nothing more than easy fatigue or a lack of energy. As the condition progresses, more severe symptoms may be experienced, such as shortness of breath, pounding of the heart, and a rapid pulse; these are caused by the inability of anemic blood to supply the body tissues with enough oxygen. Pallor, particularly in the palms of the hands, the fingernails, and the conjunctiva (the lining of the eyelids), may also indicate anemia. In very advanced cases, swelling of the ankles and other evidence of heart failure may appear.

COMMON CAUSES OF ANEMIA. *Loss of Blood (Hemorrhagic Anemia)*: If there is massive bleeding from a wound or other lesion, the body may lose enough blood to cause severe and acute anemia, which is often accompanied by shock. Immediate transfusions are generally required to replace

the lost blood. Chronic blood loss, such as excessive menstrual flow, or slow loss of blood from an ulcer or cancer of the gastrointestinal tract, may also lead to anemia.

These anemias disappear when the cause has been found and corrected. To help the blood replenish itself, the health care provider may prescribe medicines containing iron, which is necessary to build hemoglobin, and foods with high iron content, such as kidney and navy beans, liver, spinach, and whole wheat bread.

Dietary Deficiencies and Abnormalities of Red Blood Cell Production (Nutritional Anemia, Aplastic Anemia, and Hypoplastic Anemia): Anemia may develop if the diet does not provide enough iron, protein, vitamin B₁₂, and other vitamins and minerals needed in the production of hemoglobin and the formation of erythrocytes. The combination of poor diet and chronic loss of blood makes for particular susceptibility to severe anemia. Anemias associated with folic acid deficiency are very common.

Excessive Destruction of Red Blood Cells (hemolytic anemia): Anemia may also develop related to hemolysis due to trauma, chemical agents or medications (toxic hemolytic anemia), infectious disease, isoimmune hemolytic reactions, autoimmune disorders, and the paroxysmal HEMOGLOBINURIAS.

PATIENT CARE. Assessment of patients with some form of anemia will depend to some extent on the specific type of blood dyscrasia presented. In general, these patients do share some common problems requiring special assessment skills and interventions. Anemia can affect many different body systems.

Although pallor of the skin is a sign of anemia, it is not the most reliable sign; many other factors can affect complexion and skin color. Jaundice of the skin and sclera can occur as a result of hemolysis and the release of bilirubin into the blood stream, where it eventually finds its way into the skin and mucous membranes. (See also Jaundice.) Bleeding under the skin and bruises in response to the slightest trauma often are present in anemic and leukemic patients. A bluish tint to the skin (cyanosis) can indicate hypoxia due to inadequate numbers of oxygen-bearing erythrocytes.

Exercise: Write an outline of the contents of the previous text.

Looking for an appropriate text

Often you will need to read your texts closely and carefully in order to understand specific information. However, you cannot read every word in every book in the library. It is useful

therefore to learn reading techniques to help you quickly assess new material, decide if it is useful and which parts need to be read more carefully. It is also much easier to read the texts in detail when you have a rough idea of what a text is about - roughly what the author's purpose is, what is at the beginning of the text and what is at the end.

Surveying the text

Whatever you need to read, it is useful to have a quick look at it all first to get an idea of the layout of the text and what is included.

So first, skim through the text to see what is included and how it is organized. Your text might not contain all the following parts, but you can expect to find many of them. Look especially at the following parts.

Title (plus maybe a sub-title).

Sometimes, perhaps when you are in the library or when you are searching through a catalogue, you need to make quick decisions on the basis of the title, maybe including a sub-title, alone. You need to ask yourself whether the text is relevant for your purpose and what sort of information you expect to get from it.

Details about the author.

It can be helpful to know about the author, what the author's academic position is, what experience the author has had, etc.

Date of publication and edition.

This helps you to decide whether or not the book is up to date. It is worth checking whether or not there is a more recent edition.

Abstract.

An abstract is usually a single paragraph at the beginning of the text. It normally summarizes the different sections of the text and draws attention to the main conclusions. Reading the abstract will help you to decide whether or not the text is relevant for your purpose.

Preface, Foreword or Introduction.

In the preface, the author explains the purpose, organization, method of presentation, and whatever particular features of the book you should especially notice. Read it carefully. The author is explaining how to get the most out of the book.

Table of Contents.

The contents will give you an overall view of the material in the book. Looking at this is a quick and easy way to survey the book to see if it includes the information you need.

Text.

The layout of the text can help you. Text books are organized into chapter and chapters have titles and section headings. Very often each chapter will start with an introduction of what is in the chapter and a summary at the end.

References list or Bibliography.

An alphabetical list of books and articles which have been referred to is included either at the end of each chapter or at the end of the book or article. Looking through the list of references will give you some idea of the author's background.

Index.

One of the most important sections of any textbook is the index at the end. This is a fairly detailed alphabetical listing of all the major people, places, ideas, facts, or topics that the book contains, with page references. The index can give you information about the topics covered in the book and the amount of attention paid to them.

Blurb.

The blurb is the publisher's description of what the book is about, usually on the back cover. But remember that the main purpose is to sell the book.

Reviewers' comments.

These are usually on the back cover, but remember they are chosen by the publisher and therefore will probably be good.

Homework: Make a survey of the English textbook you are taking this semester and see which of the following are included: title, sub-title, list of references, date of publication, place of publication, publisher, index, list of contents, edition, preface, foreword, appendices, blurb on the back cover, author, ISBN, abstract, details about author, acknowledgments, reviewers' comments.

Week 6

Exercise 1. Predict the contents of the text you are about to read, whose title is The Urinary System

Exercise 2: Predict the vocabulary used in the text

Exercise 3: Skim through the text to find the main idea

The Urinary System

The urinary system, also known as the renal system, consists of the kidneys, ureters, bladder, and the urethra. Each kidney consists of millions of functional units called nephrons. The purpose of the renal system is to eliminate wastes from the body, regulate blood volume and blood pressure, control levels of electrolytes and metabolites, and regulate blood pH. The kidneys have extensive blood supply via the renal arteries which leave the kidneys via the renal vein. Following filtration of blood and further processing, wastes (in the form of urine) exit the kidney via the ureters, tubes made of smooth muscle fibers that propel urine towards the urinary bladder, where it is stored and subsequently expelled from the body by urination (voiding). The female and male urinary systems are very similar, differing only in the length of the urethra.

Urine is formed in the kidneys through a filtration of blood. The urine is then passed through the ureters to the bladder, where it is stored. During urination, the urine is passed from the bladder through the urethra to the outside of the body. 800-2000 milliliters (mL) of urine are normally produced every day in a healthy human. This amount varies according to fluid intake and kidney function.

Function

There are several functions of the Urinary System:

- Removal of waste product from the body (mainly urea and uric acid)
- Regulation of electrolyte balance (e.g. sodium, potassium and calcium) balance.
- Regulation of acid-base homeostasis
- Controlling blood volume and maintaining blood pressure

Urination

Urination is the ejection of urine from the urinary bladder through the urethra to the outside of the body. In healthy humans (and many other animals), the process of urination is under voluntary control. In infants, some elderly individuals, and those with neurological injury, urination may occur as an involuntary reflex. Physiologically, micturition involves coordination between the central, autonomic, autonomic, and somatic nervous systems. Brain centers that regulate urination include the pontine micturition center, periaqueductal gray, and the cerebral cortex. In males, urine is ejected through the penis, and in female placental mammals through the vulva

Clinical significance

Urologic disease can involve congenital or acquired dysfunction of the urinary system.

Diseases of the kidney tissue are normally treated by nephrologists, while disease of the urinary tract are treated by urologists.. Gynecologists may also treat female urinary incontinence.

Diseases of other bodily systems also have a direct effect on urogenital function. For instance it has been shown that protein released by the kidneys in diabetes mellitus sensitizes the kidney to the damaging effects of hypertension

Diabetes also can have a direct effect in urination due to peripheral neuropathies which occur in some individuals with poorly controlled diabetes.

Urinary incontinence can result from a weakening of the pelvic floor muscles caused by factors such as pregnancy, childbirth, aging and being overweight Pelvic floor exercises known as Kegel exercises can help in this condition by strengthening the pelvic floor. There can also be underlying medical reasons for urinary incontinence which are often treatable. In children the condition is called enuresis

Checking the exercises (1-3)

Exercise 4: Underline the words that you can't guess their meanings

Exercise 5. Checking the overall meaning of the text

Exercise 6. Make an outline of the text

Homework: Make a summary of the text using only two sentences. And Make a comment of your perception of the text.

Appendix H Test 2 week 7

Predict the content of the text called Nervous System: Facts, Function & Diseases

Nervous System: Facts, Function & Diseases

By Kim Ann Zimmermann, Live Science Contributor | January 26, 2015 11:38pm ET

Read the following text about the Nervous System: Facts, Function & Diseases

The nervous system is a complex collection of nerves and specialized cells known as neurons that transmit signals between different parts of the body. It is essentially the body's electrical wiring. Structurally, the nervous system has two components: the central nervous system and the peripheral nervous system. According to the National Institutes of Health, the central nervous system is made up of the brain, spinal cord and nerves. The peripheral nervous system consists of sensory neurons, ganglia (clusters of neurons) and nerves that connect to one another and to the central nervous system.

Functionally, the nervous system has two main subdivisions: the somatic, or voluntary, component; and the autonomic, or involuntary, component. The autonomic nervous system regulates certain body processes, such as blood pressure and the rate of breathing that work without conscious effort, according to Merck Manuals. The somatic system consists of nerves that connect the brain and spinal cord with muscles and sensory receptors in the skin.

Description of the nervous system

Nerves are cylindrical bundles of fibers that start at the brain and central cord and branch out to every other part of the body, according to the University of Michigan Medical School

Neurons send signals to other cells through thin fibers called axons, which cause chemicals known as neurotransmitters to be released at junctions called synapses, the NIH noted. A synapse gives a command to the cell and the entire communication process typically takes only a fraction of a millisecond.

Sensory neurons react to physical stimuli such as light, sound and touch and send feedback to the central nervous system about the body's surrounding environment, according to the American Psychological Association Motor neurons, located in the central nervous system or in peripheral ganglia, transmit signals to activate the muscles or glands.

Diagnosing nervous system conditions

There are a number of tests and procedures to diagnose conditions involving the nervous system. In addition to the traditional X-ray, a specialized X-ray called a fluoroscopy examines the body in motion, such as blood flowing through arteries, according to the NIH.

Other standard neurological exams include an MRI (magnetic resonance imaging) CT scan, and an electroencephalogram (EEG), which records the brain's continuous electrical activity. Positron emission tomography (PET) is a procedure that measures cell or tissue metabolism and brain activity to detect tumors or diseased tissue or tumors, the NIH noted.

A spinal tap places a needle into the spinal canal to drain a small amount of cerebral spinal fluid that is tested for infection or other abnormalities, according to the NIH.

Diseases of the nervous system

“Of all the diseases of the nervous system, the most common difficulty that people have is pain, and much of that is nerve-related,” according to Dr. Shai Gozani, founder and CEO of NeuroMetrix, a medical device company. “There are 100 million people who live with chronic pain.”

According to the Mayo Clinic, patients with nerve disorders experience functional difficulties, which result in conditions such as:

- Epilepsy, in which abnormal electrical discharges from brain cells cause seizures
- Parkinson's disease, which is a progressive nerve disease that affects movement
- Multiple sclerosis (MS), in which the protective lining of the nerves is attacked by the body's immune system.
- Amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease, is a motor neuron disease which weakens the muscles and progressively hampers physical function
- Huntington's disease, which is an inherited condition that cause the nerve cells in the brain to degenerate
- Alzheimer's disease, which covers a wide range of disorders that impacts mental functions, particularly memory.

Mayo Clinic also noted that the nervous system can also be affected by vascular disorders such as:

- Stroke, which occurs when there is bleeding on the brain or the blood flow to the brain is obstructed;
- Transient ischemic attack (TIA), which are mini-type strokes that last a shorter period of time but mimic stroke symptoms; and
- Subarachnoid hemorrhage, which is specifically bleeding in the space between your brain and the surrounding membrane that can be the result of a trauma or rupturing of a weak blood vessel;

Infections such as meningitis, encephalitis, polio, and epidural abscess can also affect the nervous system, the NIH noted.

Treatments vary from anti-inflammatory medications and pain medications such as opiates, to implanted nerve stimulators and wearable devices, Gozani said. “Many people also turn to herbal and holistic methods to reduce pain, such as acupuncture.”

Underline the words that you can't guess their meaning.

Summarize the text in max. 3 sentences

Week 8

Exercise 1. Predict the contents of the text you are about to read, whose title is Infectious diseases

Exercise 2: Predict the vocabulary used in the text

Exercise 3: Skim through the text to find the main idea

Checking the exercises

Exercise 4: Underline the words that you can't guess their meanings. Discussion.

Infectious diseases

By Mayo Clinic Staff

Infectious diseases are disorders caused by organisms — such as bacteria, viruses, fungi or parasites. Many organisms live in and on our bodies. They're normally harmless or even helpful, but under certain conditions, some organisms may cause disease.

Some infectious diseases can be passed from person to person. Some are transmitted by bites from insects or animals. And others are acquired by ingesting contaminated food or water or being exposed to organisms in the environment.

Signs and symptoms vary depending on the organism causing the infection, but often include fever and fatigue. Mild complaints may respond to rest and home remedies, while some life-threatening infections may require hospitalization.

Many infectious diseases, such as measles and chickenpox, can be prevented by vaccines. Frequent and thorough hand-washing also helps protect you from infectious diseases.

Symptoms

By Mayo Clinic Staff

Each infectious disease has its own specific signs and symptoms. General signs and symptoms common to a number of infectious diseases include:

- Fever
- Diarrhea
- Fatigue
- Muscle aches

When to see a doctor

Seek medical attention if you:

- Have been bitten by an animal
- Are having trouble breathing
- Have been coughing for more than a week
- Have severe headache with fever
- Experience a rash or swelling
- Have unexplained fever
- Have sudden vision problems

Products Causes

By Mayo Clinic Staff

Infectious diseases can be caused by:

- Bacteria. These one-cell organisms are responsible for illnesses, such as strep throat, urinary tract infections and tuberculosis.
- Viruses. Even smaller than bacteria, viruses cause a multitude of diseases — ranging from the common cold to AIDS.
- Fungi. Many skin diseases, such as ringworm and athlete's foot, are caused by fungi. Other types of fungi can infect your lungs or nervous system.
- Parasites. Malaria is caused by a tiny parasite that is transmitted by a mosquito bite. Other parasites may be transmitted to humans from animal feces.

Direct contact

An easy way to catch most infectious diseases is by coming in contact with a person or animal who has the infection. Three ways infectious diseases can be spread through direct contact are:

- Person to person. A common way for infectious diseases to spread is through the direct transfer of bacteria, viruses or other germs from one person to another. This can occur when an individual with the bacterium or virus touches, coughs on or kisses someone who isn't infected. These germs can also spread through the exchange of body fluids from sexual contact or a blood transfusion. The person who passes the germ may have no symptoms of the disease, but may simply be a carrier.
- Animal to person. Being bitten or scratched by an infected animal — even a pet — can make you sick and, in extreme circumstances, can be fatal. Handling animal waste can be hazardous, too. For example, you can acquire a toxoplasmosis infection by scooping your cat's litter box.
- Mother to unborn child. A pregnant woman may pass germs that cause infectious diseases to her unborn baby. Some germs can pass through the placenta. Germs in the vagina can be transmitted to the baby during birth.

Indirect contact

Disease-causing organisms also can be passed by indirect contact. Many germs can linger on an inanimate object, such as a tabletop, doorknob or faucet handle.

When you touch a doorknob handled by someone ill with the flu or a cold, for example, you can pick up the germs he or she left behind. If you then touch your eyes, mouth or nose before washing your hands, you may become infected.

Insect bites

Some germs rely on insect carriers — such as mosquitoes, fleas, lice or ticks — to move from host to host. These carriers are known as vectors. Mosquitoes can carry the malaria parasite or West Nile virus, and deer ticks may carry the bacterium that causes Lyme disease.

Food contamination

Another way disease-causing germs can infect you is through contaminated food and water. This mechanism of transmission allows germs to be spread to many people through a single source. *E. coli*, for example, is a bacterium present in or on certain foods — such as undercooked hamburger or unpasteurized fruit juice.

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Exercise 5. Write a summary in Spanish expressing your view on the authors, the authenticity and the usefulness of the text.

Appendix I Post-Test Week

Esta primera parte está dedicada a comprobar que los alumnos pueden tener una idea general del contenido y las partes que contiene un texto a partir de su título. (Predicting)

Prueba de comprobación de estrategias de lectura

Nombre _____

Ejercicio 2. Lea rápidamente el siguiente texto para saber de qué se trata (5 min)

Este ejercicio está dedicado a comprobar si los estudiantes son capaces de saber el contenido dun texto a partir de la realización de una lectura rápida del mismo (Skimming).

Therapy

Therapy is the attempted remediation of a health problem, usually following a diagnosis. . In the medical field, it is usually synonymous with treatment. The English word *therapy* comes via Latin *therapīa* and literally means "curing" or "healing". There are many types of therapy but in this article only four types are mentioned

Radiotherapy is the use of radiation in controlled doses to treat disease. It works by damaging the DNA of malignant cancerigenous cells and can be given both externally and internally.

Radiotherapy may be used:

- As *curative* treatment, for example to shrink or eliminate tumors. It may be used with other treatments, such as surgery or chemotherapy.
- As *palliative* treatment to reduce pain and other symptoms of cancer or other disease.

Chemotherapy is the treatment of disease by means of chemicals that have a specific toxic effect upon the disease-producing microorganisms or that selectively destroy cancerous tissue. The main purpose of chemotherapy is to kill cancer cells.

As with radiotherapy, Chemotherapy may be given with a *curative* intent, or it may aim to prolong life or to reduce symptoms: (palliative chemotherapy).

Chemotherapy can cure some types of cancer. In some cases, it is used to slow the growth of cancer cells or to keep the cancer from spreading to other parts of the body. When a cancer has been removed by surgery, chemotherapy may be used to keep the cancer from coming back.

Chemotherapy also can ease the symptoms of cancer, helping some patients have a better quality of life.

Psychotherapy, or "talk therapy", is a way to treat people with a mental disorder by helping them understand their illness. It teaches people strategies and gives them tools to deal with stress and unhealthy thoughts and behaviors. Psychotherapy helps patients manage their symptoms better and function at their best in everyday life.

Physiotherapy is a healthcare profession that assesses, diagnoses, treats, and works to prevent disease and disability through physical means. Physiotherapy helps restore movement and function when someone is affected by injury, illness or disability. Physiotherapists are experts in movement and function who work helping their patients to overcome movement disorders, which a) may have been present from birth, b) acquired through accident or injury, or c) are the result of ageing or life-changing events. They also work with patients in rehabilitation after orthopedic surgery.

Ejercicio 3. Diga si su opinión acerca del contenido del texto fue acertada.

Comprobación del Ejercicio 1 (predicting)

Ejercicio 4. Subraye las palabras del texto que no comprende.

Este ejercicio está dedicado a saber si los estudiantes pueden inferir significados de palabras por su composición (cognadas) o a partir del sentido de la oración

Ejercicio 5. De acuerdo con la lectura, marque (V) si las siguientes oraciones son verdaderas o (F) si son falsas.

Este ejercicio se diseñó para comprobar comprensión de la lectura en términos generales.

_____ Therapy is a treatment to cure or reduce a health problem.

_____ The curative and the palliative system are the same because they can cure cancer.

_____ Psychotherapy and Physiotherapy are different because one is dedicated to mental problems and the other to physical problems.

_____ Both radiotherapy and chemotherapy are used to destroy cancer cells.

Ejercicio 6. Complete brevemente *en español* las oraciones de acuerdo con la información contenida en el texto.

Este ejercicio se diseñó para comprobar comprensión de la lectura en términos generales., al igual que el anterior

The purpose of a curative therapy is

The purpose of a palliative therapy is

Psychotherapy is a treatment

Physiotherapy is a treatment

Exercise 7

Conteste *en español* las preguntas de acuerdo con la información contenida en el siguiente texto.

En este ejercicio se cambia de tema y está dedicada a saber la capacidad de un estudiante para resumir la información de un texto.

ENDOSCOPY: Endoscopy is a way of examining parts of the body which are not visible from the outside. A typical endoscope is a flexible tube which is inserted through one of the main orifices (openings) such as the anus or the mouth. Rigid endoscopes, which cannot be bent are also used but are inserted through small incisions (surgical cuts.) The shaft contains several channels to transmit light from the outside and images from inside and to allow different instruments to be used.

Endoscopes can be used for the following:

- To provide diagnostic information
- to excise (cut out) diseased tissue or growth such as polyps
- To clear obstructions
- To take a biopsy
- To cauterize a site of bleeding by applying heat.

Compare the two kinds of endoscopes mentioned in the text.

Many people say that endoscopy is a very efficient way to examine external organs. Do you have a similar opinion?

Why?

Appendix J

After each class the participants were asked to write their reflection on the learning process they were undergoing. Also they were asked to write about the way they felt after each specific class. The purpose was to collect their free comments about what and how they were learning and applying the strategies that were presented by the teacher.

The anonymous reflections from the first class.

Student #3 “Aprendí a identificar cada tipo de lectura de acuerdo con los textos o búsquedas que realizo”.

Student #17 “Aprendí a distinguir el tipo de lectura que realizo como son: skimming, scanning, extensive, intensive. Me sentí bien por lo aprendido”.

The anonymous reflections from the second class.

Student #12 “Aprendí mejor y más a detalle acerca del skimming; leer el título, leer el primer párrafo, la primera oración de los demás párrafos y el último párrafo leerlo completo. Durante esta sesión me sentí muy bien, siento que cada sesión aprendo más”.

Student #14 ”Aprendí de manera más específica el tipo de lectura skimming, cuáles son sus pasos, en que consiste cada uno y como identificarlos en un texto. Me sentí relajado y atento”.

The anonymous reflections from the third class.

Student # 7 “Aprendí que existen estrategias para leer un texto pero que muchas veces no los utilizamos y me incluyo a mí porque no estamos acostumbrados a esforzar nuestra mente. Me sentí bien al saber que puedo lograr leer textos más adelante que quizás no conozca al cien por ciento todas las palabras en inglés, pero puedo ser capaz de comprenderla”.

Student# 11 “Lo que aprendí en la clase fue la gran utilidad que posee utilizar el predicting, nos ayuda por ejemplo al momento de estudiar, es una gran herramienta estudiantil. En esta clase me sentí bien”.

The anonymous reflections from the fourth class.

Student #7 “Aprendí que debo esforzarme en relacionar las frases cuando no conozco una palabra, para entender lo que estoy leyendo aun cuando no sé exactamente el significado de esa

palabra. Me sentí frustrada de no entender algunas palabras y bloqueada mi mente pero debe hacer trabajar mi mente para tratar de darle sentido a lo que estoy leyendo y así entenderlo”

Student # 16 “Aprendí a leer más rápido las lecturas y tratar de asimilar su significado con el contexto. Me sentí un poco presionado porque no estaba acostumbrado a leer rápido”.

The anonymous reflections from the fifth class.

Student # 10 “Aprendí la organización y generalidades de medicina en otro país, y de una enfermedad. Me sentí y estuve distraído”.

Student # 11 “Lo que aprendí hoy fue a hacer un skimming más rápido, y solo identificar palabras claves para darme una idea general de lo que trataba el texto. Me sentí muy interesada en la clase ya que cada vez aprendo cosas nuevas que me ayudan en otras clases”.

The anonymous reflections from the sixth class.

Student # 3 “A buscar ideas del contenido de un texto de manera rápida y precisa, además de imaginar cual es el contenido. Seleccionar un título que me permita encontrar lo que estoy buscando. Me sentí entusiasmado porque puedo hacer uso mi tiempo eficientemente”.

Student # 9 “Hoy aprendí a mejorar el skimming. También a integrar todos mis conocimientos para descifrar un texto en inglés. Me sentí a gusto, más porque la lectura se trata de un tema que vimos recientemente en Tisular, por lo que fue más fácil interpretarlo”.

The anonymous reflections from the seventh class.

Student # 5 “aprendí más sobre las estrategias de lectura, las cuales me ayudaron en mi aprendizaje y me gustaría tener más tiempo para poder practicarlas. Me sentí mejor porque comprendí más el tema de la lectura”

The anonymous reflections from the seventh class.

Student #1 “Reforcé mis conocimientos del skimming, me di cuenta que el número de palabras que no entiendo en una lectura disminuyo, ya que antes de conocer estas técnicas se me complicaba más el comprender un texto. Se siente bien el poder predecir el contenido de un texto aun estando en otro idioma”.

Student #3 “Entendí más rápido un texto utilizando las técnicas de leer el párrafo completo, primeras oraciones y el último párrafo completo. Lectura rápida y completa. Me sentí con más seguridad, porque cada vez lo hago más rápido”.

The anonymous reflections from the eight class.

Student #2 “Aprendí a poner en práctica lo aprendido siguiendo los pasos del skimming, ya en un texto completo. Dar una idea general de lo leído en un tiempo determinado. Me sentí entretenida ya que es un texto interesante y es muy útil en mi carrera. ”.

Student #5 “Aprendí más sobre las estrategias de lectura las cuales me ayudaran más con mi aprendizaje y me gustaría tener más tiempo para prepararme y poder realizar este tipo de estrategias. Me sentí mejor, comprendí más el tema”.

Student # 6 “Aprendí a realizar completamente el skimming, pero solo me falta un poco más de tiempo para poder sacar la idea general del texto. Me sentí bien, sentí que aprendí y que poco a poco con practica dominare el skimming”.