



UNIVERSIDAD DE QUINTANA ROO

División de Ciencias Políticas y Humanidades

**The relationship between Personality and Learning
Styles: The Case of Lengua Inglesa Students at the University
of Quintana Roo.**

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Para obtener el grado de
LICENCIADA EN LENGUA INGLESA**

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Abstract

Several factors such as motivation, level of proficiency, L1/L2 ,age and so on have been found in the learner regarding the process of learning English. The way we behave, store information and learn may be related to our personality, and some factors influence positively or negatively during this process. In the field of education, students have different personalities, some of them have a tendency to be introverts or extroverts, and according to those personalities they carry out themselves and store information to learn. As a primary objective this study aims to investigate the relationship between Personality Traits (Introversion-Extroversion, Neuroticism and Psychoticism) and Learning Styles(Visual, Auditive, Kinesthetic, Tactile, Individual and Groupal). Secondly, this study explains how our brain works during the process of learning, which areas in our brain are activated so that we can determine the trend that a person shows. For example if they can be introvert or extrovert, and the trend to Neuroticism or Psychoticism), thus based on that kind of personality there would be match between that personality and a specific type of learning style. The subjects were 103 EFL students of the English Language Major at the University of Quintana Roo, México. Personality data were collected via the Eysenck Personality Questionnaire (EPQ-R) and the Perceptual Learning Style Preference (PLSP). Data analysis included simple correlations. The results showed that there is a relationship between Personality Traits and Learning Styles. Extroverts tend to work better with the Kinesthetic, and tactile learning style, and introverts tend to work better with visual and individual learning style. The most preferred learning style by students of the English Language Major was *Kinesthetic* and the least preferred was *groupal*. In sum, the relationship between personality and learning styles is very important during the process of learning English, and teachers need to identify those personality traits in their students so that they can help them to exploit in a positively way the abilities that students have, so that the performance in the classroom is aimed at the success regarding learning.

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Chapter 1 Introduction

The role of the teacher is very important in the field of education. He is the responsible for guiding students to achieve academic success that encompasses goal setting, proper time management, student skills, and their preferences for a particular style of learning. A student's learning style determines how that person comprehends and retains information. In order to have effectiveness in the process of helping students, teachers must match their teaching styles with student's learning styles and needs. Educators must understand that students differ in their learning style, and it is important to implement a variety of teaching methods to reach them. There are cases in which the relationship between teaching styles and students learning styles is not a match, the results in getting success are not favorable for either both sides, and that is when problems such as frustrations begin (Reid, 1987).

The topic about the relationship between students' personality traits and their learning styles would seem very common, familiar, unimportant, and not complicated, for people who are involved in different fields, but in the field of education, it plays an important role for teachers and students. It determines how successful students can be while they are studying, and this success will help them to develop themselves better in a future.

Every human being has the capability of developing himself or herself successfully, it is not true that some people are more intelligent than others, I consider that the key of achieving success is to believe in yourself , and to put into practice every single thing you learn every day, otherwise, if you do not do it, you will never

improve your actions, way of thinking, or whatever you are learning in that moment of your life. Every thing needs to be put into practice.

1.1 Background and relevance of the study

Due to this idea that every human being has the same capabilities, and intelligence; the object of study is to help students to identify their kind of personality, once they have done this, the next step would be also to identify their way of learning, all these through the different learning styles they have, which they may not know yet.

Nowadays, students are in trouble when they have to perform different tasks, that is to say, when they are encountered with different activities in the classroom that would help them to success in their learning, but there are other times that those activities are against their personality, and against their learning styles, and causing with this a backwardness, or a detriment in their learning. For example, there have been some cases in which the teachers may not know how to motivate their students to get them all involved in certain activities, so teachers continue with the same monotonous way of teaching, having with this the same boring routine, and making students feel bored.

Kinsella (1995) claimed that teachers can and should know their students' preferred learning styles. I agree with her idea because there are situations in which we think that something is going wrong during class, and we ask ourselves why is it too difficult for students to understand and participate positively in our class? An important issue is to take into account Kinsella's idea about knowing or students first. When teachers arrive their classrooms, they do not observe their students' behaviour,

or ask if they have any problem in their family etc. In other words, they do not care about several factors that may affect their learning. For example, teachers may not pay enough attention if some students come from divorced parents, or if their economical situation is weak.

That is why the role of the teacher is very important because if teachers manage to identify these factors, it would be easier for them to have a brief background about students' personality, and once they have identify it, teachers would plan their activities based on their students learning styles and needs.

1.2 The context of the investigation

Here, at the University of Quintana Roo, there are as different majors as different types of personalities. Some students have shown a similar pattern of behaviour regarding to the type of personality they have. For example, some students enjoy being the center of attention, and like working in groups, but there are others who prefer working alone, and participate in activities in which they do not have to be exposed to the public.

Due to this, I would like to say that the personality is not only a matter exclusively of a specific major, and it influences on everybody. In this study about the relationship that there is between the Personality and Learning Styles, I would like to focus specifically on the case of the English Language Major students at the University of Quintana Roo.

As a student of this major, I always asked myself why some students were good at certain abilities such as listening, or reading, and why others were not good

enough at them. During the major, we worked with four basic abilities such as: listening, speaking, reading and writing, and among the observations I did as a student I realized that some classmates were really afraid of speaking, or others had trouble developing the reading skill. Some of them had their own strategy to understand readings either reading aloud or silently, moreover there were other cases which some students used to show an active participation in the classroom.

I consider that this situation has prevailed in students for a long time. I never imagined how the dimensions of personality (extroversion-introversion) would affect or influence on the different types of learning of each student. It explains why some students are good at certain abilities, and why others do not. Moreover, it shows the preferences that some students have to learn, for example, working alone or in groups, or why some students learn better by watching posters, flashcards, etc, or why others learn better by listening to the teacher, and so on.

1.3 Purpose and scope of the investigation

Because personality has to do with everything in human's life, the relationship between this, and the learning styles is very important. That is why my motivation emerged, because during the major, I saw the difficulties that some students had regarding the language, and it was due to the kind of personality they had. While I was a student, I saw different situations in which some classmates showed their strength, and weaknesses regarding different abilities. For example, I used to observe their attitudes, and I used to ask myself many questions such as: Why some students had trouble when they had to concentrate in class?, or why they had different ways of

learning and studying? Another example was that there were some classmates who were good at taking notes by doing mind maps, and others used to learn better by writing long sentences without using mind maps and so on.

Something that I also noticed was that some students felt confident when they participated in competitions, but others had difficulty with those activities. Some students were extroverted, and others introverted, and everybody had a different way of learning and studying.

These were some of the reasons I had for having chosen this topic, and to try to express my interest through them. Another reason I had, was because I am closely related to the field of education because my academic training was focused on it, moreover, this will help me in the future to learn more about the personality of my future students, with this, I would help them to get advantage of their abilities, and help them to develop new ones that they do not know yet, so that they can identify and put them into practice.

We as teachers have an enormous responsibility that will never end, only till our last day, and this reminds me of the words of Albert Einstein (1879-1955) when he stated:

"Intellectual growth should commence at birth and cease only at death"

The topic about the relationship between the personality, and learning styles has been studied before by important psychologists such as Hans Eysenck who carried out different research about the dimensions of the personality traits such as

Extroversion, Introversion, Psychoticism, and Neuroticism in humans, and his contribution to the evolution of the understanding of human behaviour.

Eysenck's theory is based primarily on genetics and psychology. He considers the learnt habits as very vital, moreover, he states that our differences in our personality are due to our inheritance. He was focused on people's temperament. His research showed two main dimensions of the temperament; the first one is the Neuroticism, and then Introversion-Extroversion.

Regarding Neuroticism, it emerged due to the nervous problems that people had, due to many people started to show neurosis, that is why ¹Eynsenck(1967) decided to research about the causes of it, and found its origin in the human physiology. He realized that the nervous system gave commands to the kidney at the moment of making decisions about things that had to be done etc, and having with this the liberation of sugar, provoking with this the adrenaline, this substance alters many corporal functions which prepare at the same time the muscles to carry out actions. Eysenck through this dimension explains why some people tend to be more nervous than others when they are in different situations.

Similarly, Eysenck was interested in the dimensions of Extraversion (excitation) Introversion(inhibition), he referred to extroverted people to those who showed a kind of amnesia when they were in awkward, or embarrassing situations. These people tended to be more insensible, and tried to forget all that could affect them. On the

¹ Boeree, G. (2006). *Personality Theories*. Retrieved July 25, 2007, from <http://webspace.ship.edu/cgboer/eysenck.html>

contrary, introverted people used to recall every single thing they experienced, and were more able to show panic in awkward or embarrassing situations.

Regarding personality traits, Eysenck is the principal who focused more on the traits of Introversion-Extroversion, Neuroticism and Psychoticism. In the same way, an important icon of the study about the Learning Styles, is Joy M. Reid(1995) who focused on *Perceptual Learning Styles Preferences (PLSP)*, he allowed ESL students to self-identify their preferred learning styles among six categories: visual, auditory, kinesthetic, tactile, group, and individual learning.

Reid clasified the Learning Styles in three main groups: the *Cognitives*, the *Sensorials* and the *Affectives*. The first group (*Cognitives*) is divided into two groups (FD-FI) Field Dependent and Field Independent , Reid refered to those students who depend entirely from the situation(FD), or the guidance of the teacher, and the group (FI) these students were able to organize information without the complete help of the teacher .

The second group (*Sensorials*) was divided into two groups too. The first one was the *Perceptives* (Visual, Auditive, Kinesthetic,and Tactil), and the other was the *Sociological* (Group-Individual)

The last one was the (*Affective*) it refers to the left and right brain hemispheres. Those students that have a preference in the **left** one tend to be more analitical and reflexive, and those with a **right** preference tend to be more emotional, interactives, and auditives.

There have been some investigations about the relationship between the personality and learning styles. An important study regarding the importance of

learning styles in ESL students, was carried out by teacher Laura Hernández (2003) at the UNAM to 100 students at CELE(Center languages) from different ages, majors, and sexes. Her research was exploratory-descriptive about the cognoscitives, sensorials and affective learning styles and it was based on the perceptives and sociological learning styles. She wanted to know the predominant learning styles in those students and the relationship among the variables and learning styles.

The results regarding the cognoscitive learning style, she found that there were differences between FD(Dependent Field) and FI(Independent Field). For example, students who showed preference ind FD were from areas such as administration, economy and humanities.

Regarding sensorial learning style, she found that students between 17 and 32 who studied administration, math, or biology were more kinesthetic, second, those who studied arts or social sciences were tactils, those who were 33 and 40 were more visual, and finally, those all students except those from chemistry-biology had preference for an individual learning style.

Finally, the preference that students showed regarding each cerebral side: left or right was the following: those students who studied law or had a Ph showed preference for the right side, and those who studied administration, math, chemistry or biology developed better the left side.

Due to the information I have collected all this time about personality and learning styles, I realized about their importance and influence on the way we carry out our activities and decisions. Moreover of understanding students'personality and their learning styles to process and storage information. These reasons and more are

what motivated me to do my own research at the University of Quintana Roo with the students of the English Language Major.

Through this project, I would like to achieve the following objectives:

- Identify student's personality.
- Identify students' learning styles preference according to their personality. Once they have found them not only to work with those, but to help them to find, and use those that they do not know yet, or are in disuse.
- Another object is to provide students features about their different learning styles so that they know them and can get advantages of those abilities when they have to study for an exam or taking notes.
- The last objective is to avoid future conflicts regarding learning styles, that is to say, that it is excellent to know your students' learning styles, but also it is very important to take into account teachers' learning styles too. With the purpose, that the academical enrichment in the classroom can be noticeable.

This research topic is very important because it would help students to orient them to make choices, academic goals, and careers. In the case of the teachers, it avoids teaching in a homogeneous way, so that they do not feel frustrated or to frustrate their students.

In the case of the English language major, this model would help students to find their preferred learning style regarding their personality, and to work on that to achieve academic success. Once they have found their learning style, it does not mean that they will always use it; on the contrary, it will help them to develop other preferences in order to have a wide range of varieties. This reminds me the words of Kolb when he stated that:

"The actual process of growth in any single individual...probably proceeds through successive oscillations from one stage to another."

(Kolb, 1984)

The learning process is dynamic and based on the learners needs for different abilities at different times and rates. Therefore, teachers should not assume that a student learns using only one style. Students would use other styles as a complement of their academic growth.

In the case of The English language major, Reid's instrument, would help students to identify first which is the preferred perceptual learning style for them, and therefore, to understand why they are good at certain abilities such as listening, speaking, reading and writing, and to help them to carry out themselves in a better way, besides of developing other perceptual learning styles.

In Eysenck's studies about personality, he states that those who are good at speaking tend to be extroverts, and that introverts are good at retrieving information from long term or permanent storage, in other words, that introverts learn vocabulary permanently, and the opposite happens regarding the extroverts. Another important aspect is the reading ability, in which those who are introverts have more advantages

because they reflect better and are more able to solve analytical and complex problems than Extroverts or Divergers.

Personality and learning styles are very important in education. That is why the teacher plays an important role, and he is the responsible for helping the students to guide them regarding their personality in activities which help them to develop and exploit their potentialities in a successful way.

A teacher has to know their students in order to understand their weaknesses and strengthens, and to know what to expect from them. This reminds me to Grasha (1972) when stated that:

“If teachers can show students the variety and versatility of learning styles by providing experiences in different teaching styles, the students will meet the demands of academic teaching methods and assignments.”

(Grasha, 1972)

One of the goals of the education is to help students to identify, and assess their individual learning styles, and another is when the instructor understands and uses different teaching styles. A that moment when both are overlapped, it turns into success for both sides.

1.4 An overview of the thesis

To explain the relationship between personality and learning styles, this thesis is organized into five chapters. Chapter 1 is the introduction, in here there will be a brief introduction of the research and the relevance of personality and learning styles in education, moreover the context of the investigation at the University of Quintana Roo to students of the English language major. Then, the purpose of the investigation which would help some teachers to identify their students' personality and learning styles in the class.

The second chapter is about the relevant literature in which this thesis is based on. I will mention theories of personality such as those of Freud Sigmund, Maslow Abraham, Jung Carl, and Allport; moreover I talk about Learning Styles as well as the research questions hypothesis.

The third chapter is about the method, the way I gathered data, which instruments I used, the characteristics of the participants such as age, level of proficiency, sex, and work, with the purpose of knowing more about them and to find if there is any match among those variables regarding learning styles.

The fourth chapter is about the results and discussion of the project. I will show some graphs which will explain the final results of this research.

Finally, in chapter 5 I will give the conclusions about this research, giving a summary of the major findings, further information, limitations of the study, and pedagogical research.

Chapter 2 Review of Literature

In this second chapter I will talk about the personality and learning styles may be related. Before explaining deeply personality theories, I will define briefly what personality. Moreover of mentioning the importance that personality has in our life. Afterwards, I will mention some interesting personality theories explaining the essence of human's personality, humanistic and behaviouristic theories will be mentioned. I will also explain the basis of the personality I chose for this research. I am talking about the PEN model developed by Hans Eysenck. Then , I will define learning styles, and I will mention some theories and their contribution to education. Finally, I will deal with the relationship between personality and learning styles.

2.1 Overview of personality and learning

How many times we have asked ourselves why do people behave or think in a certain way different from others? , or why do they follow different processes to solve something and achieve a result? These questions arose because of the different attitudes that people have in their daily life. For example, those differences in the way of thinking, understanding things, acting, emotions, interacting with other people, and processing, and learning information have an explanation. All this is may be to our personality, according to our degree of introversion-extroversion is what makes people different.

Personality reflects what we are, and personality has to do with everything we do in our daily life. For example regarding the simple decisions we have to make, our degree of impulsiveness, responsibility, risk taking, self esteem, independence, our

masculinity or femininity, beliefs, and the process we follow to learn something or store information, etc. for these reasons and more that is why personality is very important.

Personality is not only behaviour, thoughts, or feelings, but rather a person's style or way of interacting usually with other people. If personality is a person's style of interacting with the environment, where does it come from?, where do people's personality come from?

Some people gave their opinion about personality, most of them think that personality is shaped by the social environment in which we grow up (nurture), but few think that this could be a combination of nature, or genetics from our parents. Due to these opinions, the controversy of the origin about personality arose. Hans Eysenck(1940) stated that personality is based on genetic inheritance and not just for the environment.

An example of the genetic inheritance personality is with two ²identical twins who did not grow up together. In these cases, the twins had the same genetics (nature), but different environments (nurture).

One day, I was watching a program about twins and there was interesting case of twins who had the same career, chose mates with similar traits, and liked the same kinds of music, all this because they had the same genes. That is why *nature* is clearly very important in developing a person's personality.

The other controversial aspect is *nurture*? Does this mean that it does not matter how people raise their children? Nurture also affects people's personalities. In

² *The twins brought up on either side of the Iron Curtain... but who lived identical lives* (2007). Retrieved December 20, 2007, from <http://www.dailymail.co.uk/femail/article-503775/The-twins-brought-Iron-Curtain--lived-identical-lives.html>

fact many scientists think that nurture is just as important as nature. Some studies suggest that environment is important in helping children fully develop their genetic potential.

As I had mentioned before, some scientists have made research on twin cases, there is an interesting example of some ³German twins who grew up in separate families had more similarities than differences. They were separated when they were three months-year-old and remained so for 26 years. Their mother was forced by the communist state to put them up for adoption because she was a young mother with three older children. These twins were with their parents until the age of three months. Then, they were taken to the orphanage where, cruelly, the state policy was that twins had no right to be kept together. They were adopted by two very different families and ended up living on either side of the Berlin Wall. Ulrike was raised in affluent West Germany with every modern luxury and freedom, while Conny grew up amid the deprivation of the communist East.

In short, Ulrike and Conny are similar, not just in appearance, but also in attitudes, tastes, sense of humour and outlook. But there is one more twist to their extraordinary story. Despite this, both twins had their appendix removed at 16, both had their first child at 19, and both have the same career - event management. And yet they did not meet until they were adults and mothers themselves. Their manners were alike, they laughed in the same way and both were calm, kindly and intelligent,

³ *The twins brought up on either side of the Iron Curtain... but who lived identical lives* (2007). Retrieved December 20, 2007, from <http://www.dailymail.co.uk/femail/article-503775/The-twins-brought-Iron-Curtain--lived-identical-lives.html>

they both loved the same music and books, and were keen amateur artists. Their handwritings were exactly the same, and even their voices were the same pitch.

For years, the biological theory played a significant role in human development and personality. Toward the beginning of the 20th Century, however, views began to change and personality was seen as involving both biology and environment. Hans Eysenck, however, fought against this trend. By using the statistic known as ⁴Factor Analysis (1947), he concluded that all human traits can be broken down into two distinct categories:

1. Extroversion-Introversion
2. Neuroticism

As I had mentioned before, the interest that Eysenck had to study the behaviour in extroverts and introverts. He wondered about which factors would influence on people to behave in specific ways, he noticed that extroverts had the ability to forget those difficult situations or they could hide their different kinds of emotions. Conversely, introverts who remembered events, situations or things in detail showed a trend to forget things easily, and were more able to show desperation and fear in troublesome or worrisome situations.

Regarding Neuroticism, Eysenck noticed that the nervous problems in people were determinant to label them as neurotics. His explanation was based on the

⁴ A statistical technique used to determine the number of components in a set of data. These components are then named according to their characteristics allowing a researcher to break down information into statistical groups. Statistical technique. Retrieved August 20' 2007, from <http://allpsych.com/dictionary/f.html>

human biology, in the ⁵limbic system, which is the center of the emotions and feelings in humans like wrath, fright, passion, love, hate, joy and sadness. This system is also responsible for some aspects of personal identity and functions related to memory.

In the field of education, ⁶Eysenck (1967) found that personality is very vital. There are some characteristics to differentiate between introverts and extroverts.

- Those who are good at speaking are extroverts.
- Introverts learn vocabulary permanently.
- Regarding the reading ability, introverts reflect better, and are more able to solve analytical and complex problems than extroverts .

This research about personality reflect clearly that it plays an important role in human's life, and the explanations about what causes extroversion, introversion, or neuroticism dimmensions are really interesting. Most of the times, we do not realize that our actions are due to this factor of personality, and it has an influence on everything we do. An important contribution of personality is that it has been useful in the academic field, for example knowing what kind of personality a student is, it will help her or him to choose a career in the future, according to her/his abilities.

Another important topic that is mentioned on this work is *learning styles* which has been found to be closely related to personality. There are some cases when people try to learn something, some people prefer to learn by listening to someone talk to them about the information and others prefer to read about the concept to learn it, or need to see the demonstration of the concept.

⁵ Rocha J; Martins, J. (n.d.)*The Limbic System: The Center of Emotions*. Retrieved August 20, 2008, from <http://www.healing-arts.org/n-r-limbic.htm>

⁶ Eysenck(1967) Personality Traits. London: Cambridge

Learning style theory proposes that different people learn in different ways and that it is important to know what our preferred learning style is. But before going deeply about this topic, I will review some research that has been done lately regarding learning styles.

A study about learning styles was carried out by Laura Hernández Ruiz of the Center of Foreign Languages of the National Autonomous of Universtiy of Mexico in 2003. Her research was based on the internal characteristics that influence on the way students perceive, remember, think and store information. To carry out her research, she received support from Joy M. Reid, who is considered one of the most important icons related to the study of Learning Styles, he defines Learning Styles as:

“Learning Styles are personal characteristics with an internal base which sometimes are not perceived or utilized in a conscious way by the student, learning styles constitute the base for the processing and comprehension about new information.”

(Reid, 1995: 3-34)

Her work included the definition and classification of these learning styles as well as the goals of the research, the size of the target group, the variables, the hypotheses presented at the beginning of the project, the instruments used, a compilation of the population's data and the different variables and results of the research. The importance of this research was to help students to discover their own learning styles(cognitive, sensorial and affective), and use them in different circumstances, so that they can have a positive attitude and a better motivation to study English so that they can improve their learning. Her research was not only aimed to students, but teachers so that they can comprehend better their

students' learning styles and match them to their own way of teaching, and improve their creativity in the classroom, in this way both parts will succeed in learning and teaching.

2.2 Definitions of personality

Personality is not an easy term to define due to the different points of view of different psychologists, I tried to show some meanings about it.

Eysenck defines personality as:

"Personality like intelligence, is determined to a large extent by a person's genes and is unchangeable beyond an effort to cover up negative traits through learned behaviour."

Another term for personality by Kendra Van Wagner is:

"Personality is made up the characteristic patterns of thoughts, feelings, and behaviors that make a person unique. personality arises from within the individual and remains fairly consistent throughout life."

According to Carl Gustav he defines personality as:

"Personality is the supreme realization of the innate idiosyncrasy of a living being. It is an act of high courage flung in the face of life, the absolute affirmation of all that constitutes the individual, the most successful adaptation to the universal condition of existence coupled with the greatest possible freedom for self-determination"

The Oxford Advanced Learner's Dictionary, it defines personality as:

"The various aspects of a person's character that combine to make them different from other people"

Finally, I agree with these terms, because all the plethora of characteristics and patterns in a person's behaviour and way of thinking, which are consistent in different situations, make us unique in this world. Similarly, I agree with Eysenck about the idea that personality is not only due to environmental factors such as upbringing, education, or culture, but by a person's genes that are unchangeable and which will remain throughout your life.

2.3 Overview of relevant theories of personality

The term personality does not have a universal meaning since every person is different. Even the personality traits are different, they have something in common, and it is to identify a person's behavior. Based on these behaviour features, we would understand that they have different ways to learn, react, and reason. One way to contribute to a person's improvement regarding their abilities is to let them be as they are. Concerning to students, a way to help them is to identify their personalities and based on that to focus them on activities which allow them to exploit their strengths and qualities.

As I had mentioned before the relevance that personality has in our life, and due to it, people prefer to share their time with those they have found similarities such

as character, attend to social activities, about likes and dislikes, or prefer to gather with those that share a similar way to process and learn things.

This last aspect of personality regarding to learning reminds me the words of McCaulley & Natter; Myres & Myres (1995) :

“Personality is important because personality traits make a difference in how people learn and what they learn.”

The origin of the word *personality* comes from the ⁷Latin word "persona", meaning "mask"

There are important psychologists who have made important contributions to human's personality, explaining what is the essence or what is important in every person. I will only mention some theorists because their human theorists attracted my attention.

1) ⁸**GORDON, ALLPORT**(American) (1961:29). He believed that one thing that motivates human beings is the tendency to satisfy biological survival needs. He did not believe in looking too much into a person's past in order to understand his present. His theory was about *human behaviour*, it was as a manner expressive of the self, he said that most of what we do in life is a matter of being who we are. He used to say that the self has seven functions: a) *sense of body* (to recognize your body, its closeness and its warmth), b) *Self-identity* (see ourselves as individual entities

⁷ Personality psychology. (2007). Retrieved July 25, 2007, from http://en.wikipedia.org/wiki/Personality_psychology

⁸ Boeree, G. (2006). Personality Theories. Retrieved July 25, from <http://webpace.ship.edu/cgboer/perscontents.html>

different from others), c) *Self-esteem* (to recognize that we have a value), d) *self-extension* (certain things, people or events that are essential to our existence), e) *Self-image* (the impression we make on others), f) *Rational coping* (the child begins to develop his or her abilities to deal with life's problems correctly), g) *Propriate striving* (when a person has achieved her/his goals, ideal or plans). Once human beings have developed themselves, they will be able to develop *personal traits* such as the a) *central traits* which are used to describe people as wild, shy, or dopey. b) *secondary traits* which are not quite obvious such as preferences, or attitudes. c) *cardinal traits* it refers to people who spend their life seeking fame, or fortune. Often people use historical people to name these cardinal traits such as: Mother Teresa, Marquis de Sade, Machiavelli, and so on.

2) ⁹**FREUD SIGMUND**, (Austrian). He was the responsible for making the idea of the conscious (ego), preconscious (superego) and unconscious (id) mind popular. The *conscious* mind is what we are aware of at any particular moment such as: thoughts, feelings, memories and fantasies. It represents reality and reason. Working closely with the conscious is the *preconscious* that is related to feelings like pride, shame and guilt. It represents the moral and ethic thoughts carried out by society, and lastly is the *unconscious* it includes all the things that are not easily available to awareness such as desires, instincts, motives, or drives. According to Freud, the unconscious is the source of our motivations, and that people are often driven to deny or resist conscious

⁹ Boeree, G. (2006). *Personality Theories*. Retrieved July 25, 2007, from <http://webspace.ship.edu/cgboer/perscontents.html>

of these motives, so they are often available to us in a disguise form. That is why Freud used to claim that people's nature or essence was *biologically perverse*, because we are always seeking for pleasure or desire (libido) in different ways. Freud saw all human behaviour as motivated by the drives or instincts, which are the neurological representations of physical needs. He considered that traumatic experiences had a strong effect on personality, if a person had difficulties in any of the tasks associated with the stages (**oral, anal, phallic, latent, genital**) a person will tend to retain certain infantile or childish habits, so he called it **fixation**, which caused an effect in personality or character, for example, in the oral stage, the fixation can be represented by oral-aggressive personality, people with this retain a life-long desire to bite on things such as pencils, things and other people, they have a tendency to be verbally aggressive, argumentative, sarcastic and so on. Similar to this stage fixation is represented by different ways of behaviour if a person did not develop every stage fully or had any trouble with it.

3) The third psychologist who had a similarity in the way of thinking to Allport and Freud is ¹⁰**MASLOW ABRAHAM** (American) who also thought that what moves people is that necessity or desire to achieve something. With his pyramid of necessities, he clearly showed through it that people needed to do their best to get what they wanted, but before that they had to identify their needs first and classify them. Among his hierarchy of needs he classifies them as:

¹⁰ Boeree, G. (2006). *Personality Theories*. Retrieved July 25, 2007, from <http://webspace.ship.edu/cgboer/perscontents.html>

Deficit Motivation	}	1. Physiological (The needs for oxygen, water, protein etc, and the needs to be active, to sleep, to get rid of wastes, to avoid pain, to have sex.)
		2. Safety (stability and protection, urge to have a home, a job security, a nest egg, a good retirement plan, and so on.)
		3. Belonging (to feel the need for affectionate relationships, it is also represented by what we look for in a career.)
		4. Esteem needs (There are two versions of esteem needs: a lower and a higher . A <i>lower</i> refers to the need for respect of others : status, fame, reputation, dominance and dignity, and higher the need for self-respect : confidence, competence, independence, and freedom)
Growth Motivation	}	5. Self-actualization (they are needs that involve the continuous desire fulfill potentials, to be all what a person can be, it is a matter of becoming the most complete, the fullest "you".)

4) ¹¹**CARL JUNG** (Swiss), was one of the early leaders in the exploration of personality and is credited with developing the constructs of **extraversion** and **introversion** in 1923. He saw human behaviour or habits as patterns and attempted to understand and explain differences in personality according to those patterns. Jung's theory divides the psyche into three parts: the *ego*, *personal unconscious*, and *collective unconscious*. The part of the psyche that makes his theory stand out from all others is: **collective unconscious** which is called at the same time "psychic inheritance". It refers to our experiences as species, a kind of knowledge we are all born with, and yet we can never be directly conscious of it. It influences all our experiences or behaviour, mainly the emotional ones. An example of this collective unconscious is the experience of love at first sight of *déjà vu*. Jung called to the contents of the collective unconscious **archetypes** such as *imagos*, *mythological* or

¹¹Boeree, G. (2006). *Personality Theories*. Retrieved July 25, 2007, from <http://webpace.ship.edu/cgboer/perscontents.html>

primordial images. Some examples of these archetypes are **the mother archetype**, **the persona**(represents the public image, the persona is the mask a person puts on to show herself or himself to the outside world), **anima**(female aspect present in the collective unconscious of men: deep emotionality, intuition, and spontaneity) **and animus**(is the male aspect present in the collective unconscious of women: logical, rationalistic, argumentative), **the family** and so on. Regarding to personality, these archetypes are strongly related to the “dimensions” of **extraversion- introversion**. As it was mentioned above, Jung began the distinction of these dimensions, so that *introverts* prefer their internal world of thoughts, fantasies, dreams, and so on, and *extroverts* prefer the external world of things and people and activities. An example of the analogy that exist between the dimension of *extraversion* with the archetype *the persona*, both are related to the outside world, the perfect image and attitude of an extroverted. Another example of analogy is *introversion* with *anima* and *animus* both referring to the inside part either feminine or masculine in people.

5) ¹²**EYSENCK HANS** (German), Eysenck was one of the first psychologists to study personality, through his PEN model he explains individual differences in personality or temperament. His theory is based primarily on physiology and genetics. Eysenck's original research found three main dimensions of temperament: **Neuroticism**, **Introversion-Extraversion**, and **Psychoticism**. Regarding to **Neuroticism** and **Psychoticism**. He referred to Neuroticism as a tendency to show negative factors, Extraversion referred to enjoy positive events, especially social events.**Psychoticism**

¹² Boeree, G. (2006). *Personality Theories*. Retrieved July 25, 2007, from <http://webspace.ship.edu/cgboer/perscontents.html>

refers to negative events also but such as recklessness and disregard about things or people. He gave the name of Neuroticism to a dimension that ranges from normal, fairly calm, and collected people to one's that tend to be quite "nervous". His research showed that nervous people tended to suffer more frequently from a variety of "nervous disorders" called neurosis, hence the name of the dimension. In order to prove that his research was true, he carried out a physiological research to find out possible explanations. He found that in the *sympathetic nervous system* why we behave in certain ways., for example, why do we remain calm during emergencies, why do people feel fear, or why are some people terrified by minor incidents. The sympathetic is a part of the **autonomic nervous system** that controls most of the emotional responsiveness to emergency situations. Eysenck hypothesized that **Extraversion-Introversion** is a balance of "inhibition" and "excitation" in the brain. *Excitation* gets into an alert and learning state; *inhibition* is the brain calming itself, either in the unusual sense of relaxing and going to sleep, or in the sense of protecting itself in overwhelming stimulation. Eysenck also noted the interaction of Neuroticism with Introversion-Extroversion. He found that people with phobias and obsessive compulsive disorder tended to be quite introverted, whereas people with conversion disorders(hysterical paralysis), or dissociative disorders (amnesia) tended to be more extraverted. His explanation was that highly neuroticistic people over-respond to fearful stimuli; if they are introverts they will learn to avoid situations that cause panic very quickly. Other introverts will learn particular behaviours that hold off their panic such as checking things many times over or washing their hands again

and again. Highly neuroticistic extroverts are good at ignoring and forgetting things that overwhelm them, they use defense mechanisms such as denial and repression.

2.4 The PEN Model of Eysenck

The PEN model is considered one of the simplest theories in explaining the personality traits such as Extroversion-Introversion, Neuroticism and Psychoticism which appear in every person. I consider this theory important in education because in a simple way it involves different students' personality features that characterized them.

In this way, teachers through this model would identify those personality traits; therefore, they would help students to develop their performance and learning successfully in class. Hence, once teachers become aware of these traits in every student, they would vary their activities in class, so that it cannot continue being monotonous, boring or focused on a specific group of students only. To know more about what the PEN model consists of, I will explain briefly what it is about.

The PEN model, proposed and advocated by Eysenck as the overarching paradigm of personality psychology. This model was adopted in this research due to its simple way of studying and defining personality in three distinctive ways which are comprised to three major dimensions: Extraversion-Introversion, Neuroticism, and Psychoticism .¹³ First, the PEN combines both **descriptive** and **causal** aspects of

¹³ Min, Kwang. (1998). *Eysenck's PEN Model: Its Contribution to Personality Psychology*. Retrieved June 20, 2007, from <http://www.personalityresearch.org/papers/jang.html>

personality in one theory. This characteristic clearly distinguishes the PEN from other trait theories such as the five-factor model. The combination in one theory of two important aspects of personality makes it possible to understand personality as a whole.

Eysenck suggests that an adequate model of personality must have two interlocking aspects: **Descriptive or taxonomic, and Causal or biological**. Eysenck stated that "*In any science, taxonomy precedes causal analysis*". **Taxonomy** refers to the way in which organisms can be organized into groups based on characters and their relationships.

Descriptively, individual differences in personality or temperament are analyzed in terms of traits. A **trait** refers to a characteristic way in which an individual perceives, feels, believes, or acts, and it is permanent or stable. As I had mentioned before, the PEN model proposes a hierarchical taxonomy of personality containing four levels (Eysenck, 1990). At the very bottom level of the hierarchy are *behaviors*, At the second level are *habits*, The third level of the hierarchy is that of traits or factors such as *sociability*. At the top of the hierarchy are superfactors or dimensions of personality such as *extraversion* which are intercorrelated sets of traits or factors. The PEN model is also based on the state-trait distinction. Traits such as Introversion-Extroversion, Neuroticism and Psychoticism at the top level of the hierarchy are *stable*, whereas behaviours at the bottom of it, such as talking with a friend in a single occasion, are *changeable* (state) across time and situation. In this respect, the distinction between levels is very important for the analysis of personality in the PEN model.

Regarding **Causal aspects**, based on a three-dimensional description of personality, the PEN model focuses on *psychophysiological, hormonal*, and other *biological* mechanisms responsible for the personality dimensions.

Consequently, Eysenck (1990) proposed the ¹⁴**Arousal Theory** to explain the causal roots of the three dimensions of personality. According to this theory, Eysenck (1990) provided a *biological* explanation of **extraversion** in terms of *cortical arousal* via the ascending reticular activating system (ARAS).

In addition to it, he explained **Neuroticism** in terms of activation thresholds in the sympathetic nervous system or *visceral brain*. Finally, he also provided a biological explanation of **Psychoticism** in terms of gonadal hormones such as testosterone and enzymes such as monoamine oxidase (MAO). These causal aspects of Extraversion-Introversion, Neuroticism and Psychoticism will be explained deeply as follows.

2.4.1 Extraversion-Introversion

Eysenck was interested in the dimensions of *extraversion* and *introversion*, the origins of this dimension were when he noticed that ¹⁵extroverted people showed a kind of amnesia when they were in awkward, or embarrassing situations; these people tended to be more insensible, and tried to forget all that could affect them. On

¹⁴ It is based on the ideas that different individuals perform better at different levels of arousal (excitement) and that every individual seeks to find its optimum level. Eysenck, M. W. (1982) *Attention and arousal: cognition and performance*. New York: Springer.

¹⁵ Min, Kwang. (1998). *Eysenck's PEN Model: Its Contribution to Personality Psychology*. Retrieved June 20, 2007, from <http://www.personalityresearch.org/papers/jang.html>

the contrary, introverted people used to recall every single thing that experience, and were more able to show panic in awkward or embarrassing situations.

Eysenck explained how personality *might* be performed by conditioning. He introduced the Pavlovian concepts of *excitation* and *inhibition* which explain differences in conditionability. Pavlov noticed differences in the way his dogs behaved during conditioning, which he explained by postulating excitation and inhibition in the ¹⁶*cerebral cortex*. *Excitation* refers to the response of the nervous system, in the cerebral cortex, to a stimulus, *inhibition* is an activity in the cortex that reduces or prevents excitation, (it refers to a shy or nervous feeling that stops a person from expressing her/his real thoughts or feelings).

Eysenck hypothesized that, in introverts, a given stimulus generates *stronger* excitation in the cortex more quickly; introvert's brain reacts faster, and reacts more strongly, to an outside stimulus. In introverts, inhibition is generated more slowly, is weaker and lasts a shorter time.

Eysenck found that the strong excitation in introverts caused classical conditioning, while strong inhibition hinders it. Hence the introvert, whose excitation is strong, conditions readily, whereas the extrovert, whose inhibition is strong, conditions poorly. But how are inhibition and excitation located in the brain? Eysenck found their place in the (ARAS) *Ascending reticular activating system of the brain stem*. The

¹⁶ It is a structure within the brain that plays a key role in memory, attention, perceptual awareness, thought, language, and consciousness. Cerebral Cortex. (n.d). Retrieved April 18, 2007 from http://en.wikipedia.org/wiki/Cerebral_cortex

ARAS is a part of the brain which regulates the ¹⁷ *autonomic nervous system*, for such processes such as respiration rate, heart rate and gastrointestinal activity. It also plays an important role in sleep, consciousness and as well as modulation of pain. It has to do with all the physical behaviour such as walking, sleeping, eating, urination, defecation and sexual activity. The reticular formation has also been traced one of the source of introversion and extroversion character traits. Eysenck refers to his **PEN** model to the biological bases of differences in personality and differences in learning ability by introducing the concepts of ¹⁸“cortical arousal” and ¹⁹“limbic system activation”.

As I had mentioned above the differences in cortical arousal which its main function is to support information processing, and regulated by the ascending reticular activating system (ARAS) which determines introversion-extroversion differences with high arousal causing introversion and facilitating learning of “task-relevant” responses.

In the brain there are ascending and descending pathways which determine how are the brain and personality related. Eysenck located *excitation* in the upward arousing paths (*picture 2.*) from the reticular system to the cortex, which cause

¹⁷ The part of your nervous system that controls processes which are unconscious like: heart rate and breathing. Autonomic nervous system. (n.d). Retrieved April 18, 2007, from http://en.wikipedia.org/wiki/Autonomic_nervous_system

¹⁸ Activation of the reticular formation of the brain. Cortical arousal increases wakefulness, vigilance, muscle tone, heart rate, and minute ventilation. Eysenck, M. W. (1982) *Attention and arousal: cognition and performance*. New York: Springer.

¹⁹ System of nerves in the brain involving several different areas concerned with basic emotions such as fear, anger, and basic needs such as to eat and to have sex. Rocha J; Martins, J. (n.d.) *The Limbic System: The Center of Emotions*. Retrieved August 20, 2008, from <http://www.healing-arts.org/n-r-limbic.htm>

motivation, emotion and learning; he located *inhibition* in the downward inhibiting paths from cortex to reticular system.

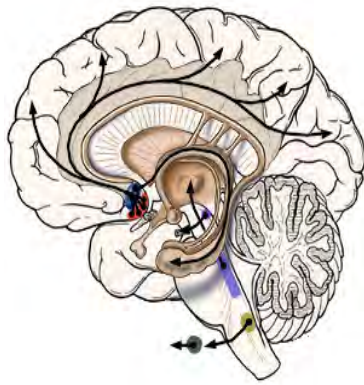
I have been mentioning Introverts and Extroverts and the way that some parts inside the brain are activated, but I would like to describe some features about this personality trait dimension as follows:

Some characteristics of Introverts

- Are territorial-desire private space and time.
- Reliable.
- Act cautiously in meeting people.
- Think carefully before speaking.
- Keeps feelings under close control.
- Get agitated and irritated without enough time alone or undisturbed.
- Long term memory.

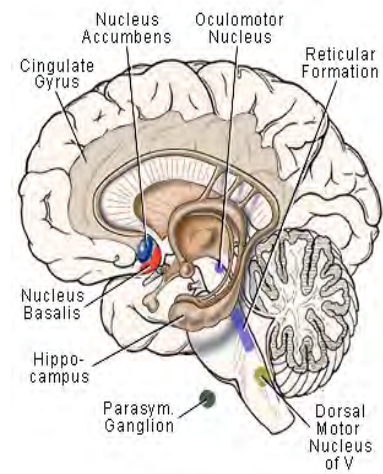
Some characteristics of Extroverts:

- Social.
- Venturesome.
- Assertive.
- Sensation-seeking.
- Dominant.
- Not always reliable.
- Prefer face-to-face verbal communication rather than written communication.
- Share personal information easily.
- Respond quickly.
- Do better on oral performance.
- Short term memory.



Labels	Pathways
Coronal section	

Figure 2. ²⁰ EXCITATION



Labels	Pathways
Coronal section	

Figure 1. ²¹ ARAS SYSTEM

These features about the difference between introverts and extroverts should be taken into account to understand better the preferences that these people have at the moment of carrying out certain tasks. At school it would be important for teachers to keep these characteristics in mind because they would help them to choose the most suitable activities which develop the children's learning in an effective way. At the same time, students will be able to exploit their strengths in an unconscious manner.

²⁰ Excitation. Retrieved November 20, 2008, from www.huntbrain.com/?keyword=function-of-the-am...

²¹ Aras system. Retrieved November 20, 2008, from www.huntbrain.com/?keyword=function-of-the-am...

2.4.2 Neuroticism

His second trait dimension he called *neuroticism*. If you scored high on this scale, that means you tend to be a very nervous or emotional sort of person. While it does not that mean you are necessarily a neurotic, it does mean you are more likely to develop neurotic problems such as phobias, obsessions, and compulsions, than someone who scores low. Low neuroticism is nowadays often called emotional stability.

Neuroticism emerged due to the nervous problems that people had, showing a degree of neurosis in their actions. Due to this, Eysenck found its origin in the human physiology. He realized that the nervous system gave commands to the kidney at the moment of making decisions and having with this the liberation of sugar, provoking with this the adrenaline, this substance alters many corporal functions which prepare at the same time the muscles to carry out actions.

It is defined as an enduring tendency to experience negative emotional states. Individuals who score high in Neuroticism are more likely to experience feelings as worried, moody anxiety, anger, guilt, and clinical depression (feeling blue). They respond more poorly to environmental stress and are often irrational and shy. On the opposite of the spectrum, individuals who score low in neuroticism are more emotionally stable and less reactive to stress. They tend to be calm, even tempered, and less likely to feel tense or rattled.

Eysenck (1947) found that Neuroticism interacts with extraversion and introversion, and that what might mean regarding to various psychological problems. He stated that an anxious introvert develops phobias, anxiety neuroses and obsessions, whereas an anxious extrovert develops conversion disorders (hysterical paralysis or epilepsy), or dissociative disorders (amnesia, or depression) and even becomes a criminal.

The explanation that he gave was that highly neurotic people over respond to fearful stimuli; if they are introverts, they will learn to avoid the situations that cause panic very quickly, even to the point of becoming panicky and developing phobias. Other introverts will learn particular behaviours that hold off the panic such as checking things many times over and washing their hands again and again.

Highly neurotic extroverts, on the other hand, are good at ignoring and forgetting things that overwhelm them. They engage in the classic defense mechanisms, such as denial and depression. They can conveniently forget a painful weekend, for example, or even forget their ability to feel and use their legs.

Eysenck (1990) also explained neuroticism in terms of activation thresholds in the sympathetic nervous system or **visceral brain** which its main function is to control subjective and emotional response in stressful environment. The visceral brain is also referred to as ²²“**the limbic system**” concerned with *basic emotions* such as fear, and aggression and *basic needs* such as to eat, to have sex and long term memory. It is responsible for the fight-or-flight response in the face of danger. Heart rate, blood

²² The **limbic system** is a term for a set of brain structures including the hippocampus and amygdala that support a variety of functions including emotion, behavior and long term memory. Rocha J; Martins, J. (n.d.) *The Limbic System: The Center of Emotions*. Retrieved August 20, 2008, from <http://www.healing-arts.org/n-r-limbic.htm>

pressure, skin conductance, sweating, breathing rate, and muscular tension in the forehead can measure activation levels of the visceral brain (Eysenck, 1990; Eysenck & Eysenck, 1985).

The **limbic system** includes many structures in the cerebral cortex and sub-cortex of the brain such as the ²³amygdala involved in signaling the cortex of motivationally significant stimuli such as those related to reward and fear in addition to social functions such as mating and the hippocampus required for the formation of long-term memories. The limbic system operates by influencing the ²⁴endocrine system and the autonomic nervous system. It is highly interconnected with the ²⁵nucleus accumbens, the brain's pleasure center, which plays a role in sexual arousal and the "high" derived from certain recreational drugs (alcohol, tobacco, cannabis). These responses are heavily modulated by ²⁶dopaminergic projections from the limbic system.

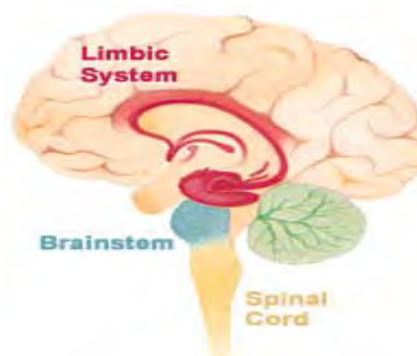


Figure 3. Lymbic system

²³ Amigdala. Retrieved November 21, 2007, from <http://www.healing-arts.org/n-r-limbic.htm>

²⁴ The **endocrine system** is an integrated system of small organs that involve the release of extracellular signaling molecules known as hormones. The endocrine system is instrumental in regulating metabolism, growth, development and puberty, tissue function, and also plays a part in determining mood. Endocrine system (n.d). Retrieved April 19, 2007, from http://en.wikipedia.org/wiki/Endocrine_system

²⁵ Involved in reward, pleasure, and addiction. Nucleus accumbens. (n.d). Retrieved April 22, 2007, from http://en.wikipedia.org/wiki/Nucleus_accumbens

²⁶ **Dopamine** is a hormone and neurotransmitter. It has many functions in the brain, including important roles in behavior and cognition, motor activity, motivation and reward, inhibition of prolactin production (involved in lactation), sleep, mood, attention, and learning. Dopamine. (n.d). Retrieved April 22, 2007, from <http://en.wikipedia.org/wiki/Dopamine>

2.4.3 Psychoticism

Psychoticism is the third dimension of personality in Eysenck's system. He came to recognize that, although he was using large populations for his research, there were some populations he was not including. He began to take his studies into mental institutions of England. When these masses of data were factor analyzed, a third significant factor began to emerge, which he labeled psychoticism.

Like neuroticism, high psychoticism does not mean that a person is psychotic or doomed to become so, only that she or he exhibits some qualities commonly found among psychotics, and that a person may be more susceptible. The P(sychoticism) scale was added to E(xtraversion) and N(euroticism) to produce the Eysenck Personality Questionnaire.

People who score high on psychoticism are: solitary, not caring for people, often troublesome, not fitting in anywhere, may be cruel and inhuman, lacking in feeling and empathy, and insensitive, hostile to others, have a liking for odd and unusual things, like to make fools of other people and upset them. Psychotic people are more likely to have problems dealing with reality, sometimes have hallucinations and often have delusions such as odd beliefs about being watched, perhaps by the CIA or even by creatures from other planets. A middle score on psychoticism might mean that a person is a bit eccentric or that she or he takes risks that other people are not as likely to take. A low score means that a person is pretty normal in this regard.

Eysenck's research shows that heritability has an influence in psychoticism. He provided a biological explanation of it in terms of ²⁷**gonadal hormones** such as testosterone and enzymes such as the enzyme ²⁸**monoamine oxidase (MAO)** which is thought to be responsible for a number of neurological disorders. For example, unusually high or low levels of MAOs in the body have been associated with depression, substance abuse, attention, deficit disorder, and irregular sexual maturation.

In humans there are two types of MAO: MAO-A and MAO-B. Both are found in neurons and astroglia. Outside the central nervous system: MAO-A is also found in the liver, gastrointestinal tract and placenta. MAO-B is mostly found in ²⁹**blood platelets**.

Eysenck (1992) reported that "**low platelet monoamine oxydase (MAO)** has been found in psychotic patients, and also in their relatives and in patients who have recovered, suggesting that low MAO activity may be a marker for vulnerability. He found tentatively suggested sex hormone imbalance, since women get lower psychoticism scores.

There is some evidence that psychosis and criminality have an underlying common factor. Research in Denmark (Kierkegaard-Sorenson and Mednik, 1975) and

²⁷ Is a cell that fuses with another gamete during fertilization. Gametes carry half the genetic information in individuals. Gonadal hormones. (n.d). Retrieved April 23, 2007, from <http://en.wikipedia.org/wiki/Gonads>

²⁸ Are enzymes that catalyze the oxidation of monoamines. They are found bound to the outer membrane of mitochondria in most cell types in the body. Monoamine oxidase. (n.d). Retrieved May 1, 2007, from http://en.wikipedia.org/wiki/Monoamine_oxidase

²⁹ A very small part of a cell in the blood, shaped like a disc. Platelets help to clot the blood from a cut or wound. Blood platelets. (n.d). Retrieved May 1, 2007, from <http://en.wikipedia.org/wiki/Platelet>

the USA (Heston and Denney,1968) has found children of schizophrenics become criminals. Heston found criminal tendencies in the children of schizophrenic mothers, adopted and brought up by normal parents, which suggests a heritable disposition to schizophrenia or criminality. Characteristics of psychoticism: aggressive, cold, egocentric, impersonal, impulsive, antisocial, unempathetic, creative, tough- minded.

2.5 Definitions of Learning Styles

The topic of learning styles is very interesting because through them people will develop a strategy to store information; therefore, to make of learning succesful. The learning styles theory implies that how much individuals learn has more to do with whether the educational experience is geared toward their particular style of learning than whether or not they are "smart."

Some definitions about Learning Styles are as follows:

"Learning Styles are personal characteristics with an internal base which sometimes are not perceived or utilized in a conscious way by the student, learning styles constitute the base for the processing and comprehension about new information."

(Reid, 1995: 3-34)

" Learning style is the way in which each learner begins to concentrate on, process, absorb, and retain new and difficult information."

(Dunn and Dunn, 1978)

"Learning styles usually refer to an individual's attempt to structure her/his learning environment in ways that facilitate learning."

(Oxford, 1990)

These three meanings about learning styles share the same purpose which is to find the most appropriate way that people have to process information and learn. Even they have the similar common end, every author defines learning style in a different way. For example, Reid (1995) referred to learning styles as internal bases that people perceive unconsciously to develop learning. Whereas, Dunn (1978) emphasized learning styles as a process to retain difficult information, and finally Oxford shares a similarity regarding Reid's point of view to define it as an individual or internal attempt to facilitate learning. I consider these definitions interesting and helpful to have a better idea of what learning styles refers to exactly.

2.6 Learning Styles in education

The human functioning is different in every person, that is why various characteristics of individuals influence second language learning. Due to these individual differences, there are four important areas which have shown to be important regarding to second language acquisition. The origin about the study of language learning was with Cook (1978) when he published an article about Language Teaching. Attention was directed to this topic and also psychologists were interested about the role of individual differences in second language learning.

Due to there are different variables that involve learning, there are two main categories with these factors are divided. The first category comprises Cognitive Variables which involves *language aptitude/ intelligence, learning strategies and*. The second category is Affective Variables which involves *attitudes, motivation* regarding *learning styles*.

These variables were based on the first model proposed by Lambert (1963) which has been adopted and modified by Gardner (1985) who defines them as follows:

Language aptitude and intelligence.- Language aptitude was viewed as a *cognitive sponge* by (Gardner 1985) where a given ability is appropriate to a new skill being learned, that skill will be attracted to that ability. If the ability is well developed in the individual, the skill will be acquired quickly. Skehan (1986) found that students who developed faster in their first language, who had superior vocabularies as children, and who came from better educated homes tended to score higher on indices of language aptitude. (Carroll, 1962) defined intelligence as the capacity to understand directions and explanations, or will make inferences about them from the content of any given learning experience.

Motivation.- Materials/teaching embraces those influences on the motivation of students. Influences such as attractiveness of teaching materials, amount of variety in classroom work, the nature of classroom organization, the nature of teacher-student relationships, and so forth. The different approaches to teaching may have different impacts on the motivation of students.

Learner strategies.- operate to transform the manner in which material is processed and learned. Those strategies must have a continuum. It is important to identify which strategies are most susceptible to training, investigate the lengths of training time are needed to achieve significant and enduring results, discover what types of presentation techniques are most effective. All learners use strategies: what good learners do is to choose the right strategy for the right occasion. Monitoring and evaluating own's performance is really important regarding strategy trainers.

Learning Styles.- the emphasis in learning styles research was on the difference between field dependent(FD) and field independent(FI). Discussions of the FD-FI contrast suggest that each extreme has its advantages. FD learners are more person-oriented, and should do better with interaction-based learning; FI learners are more analytic and object oriented, and learn more effectively when confronted with a body material to be assimilated.

As it was mentioned before, learning styles refer to methods that students use to learn. This ranges from techniques for improved memory to better studying or test-taking strategies. There are important models regarding to learning styles, but I will mention only some due to their contribution to education.

1) The **Dunn and Dunn Model** has a great deal of history and research behind it. It was developed by Dr. Rita Dunn in 1967 and since that time research has been conducted at more than 90 institutions of higher education. The model traces its roots to two distinct learning theories: Cognitive Style Theory and Brain Lateralization Theory. **Cognitive Style Theory** is based on the idea that individuals process information differently on the basis of either learned or inherent traits. **Brain Lateralization Theory** is based on the idea that the two hemispheres of the brain have different functions: left brain=verbal-sequential abilities and right brain=emotions-spatial holistic processing.

The model incorporates certain premises.

- Everyone has strengths, but different people have different strengths.
- Most individuals can learn.

- Instructional environments, resources, and approaches respond to diversified strengths.
- Individual instructional preferences exist and can be measured reliably.
- Given responsive environments, students attain statistically higher achievement and aptitude test scores in matched, rather than mismatched treatments.
- Most teachers can learn to use learning styles as a cornerstone of their instruction.
- Many students can learn to capitalize on their learning style strengths.

2) The **Kolb model** (1976, 1984): His model combines the two bipolar dimensions of cognitive growth: the active-reflective dimension and the abstract-concrete dimension. The first refers to detached observation, while the second ranges from dealing with tangible objects to dealing with theoretical concepts.

Kolb defined a 4-stage cycle of learning: it begins with the acquisition of concrete experience (CE) which gives way to reflective observation (RO) on that experience. The theory building or abstract conceptualization (AC) occurs which is then put to test through active experimentation (AE). The cycle thus recommences since the experimentation itself yields new concrete experiences.

He classified learning styles according to a 4-fold taxonomy based on the two cognitive dimensions.

- *Divergers* reflect on specific experiences from a number of different perspectives.
- *Assimilators* develop theoretical framework on the basis of that reflection.

- *Convergers* test the theory in practice.
- *Accommodators* use the results of that testing as a basis for new learning.

Lastly was Reid whose model of Perceptual Learning Styles Preference I considered the most complete and straightforward to explain students' learning styles due to her categorization.

3) **Joy M. Reid** (1984) who focused on ***Perceptual Learning Styles Preference (PLSP)***, he allowed ESL students to self-identify their preferred learning styles among six categories: visual, auditory, kinesthetic, tactile, group, and individual learning.

Reid clasified the learning styles in three main groups:

The *COGNITIVES*, the *SENSORIALS* and the *AFFECTIVES*. In the first group it is divided into two groups (FD-FI) Field Dependent and Field Independent , Reid refered to those students who depend entirely from the situation(FD), or the guidance of the teacher, and there was another group who were (FI) these students were able to organize information without the complete help of the teacher or so on.

The second group *SENSORIALS* was divided into two groups too. The first one was the Perceptives (Visual, Auditive, Kinesthetic, and Tactil), and the other was the Sociological (Group-Individual)

- **Visual.-** Students learn well from *seeing words* in books, on the chalkboard, and in workbooks. They remember and understand information and instructions better if they read them. They do not need as much oral explanation as an auditory learner, and they can often learn alone, with a book. These students should take notes of lectures and oral directions if they want to remember the information.
- **Auditive.-** Students learn from *hearing words* spoken and from oral explanations. They may remember information by reading aloud or moving their lips as they read, especially when they are learning new material. They benefit from hearing audio tapes, lectures, and class discussions. They benefit also from making tapes to listen to, by teaching other students, and by conversing with their teacher.
- **Kinesthetic.-** Students learn best by experience, by being involved physically in classroom experiences. They remember information well when they actively participate in activities, field trips, and role-playing in the classroom. A combination of stimuli--for example, an audiotape combined with an activity--will help them understand new material.
- **Tactile.-** students learn best when they have the opportunity to do "hands-on" experiences with materials. That is, working on experiments in a laboratory,

handling and building models, and touching and working with materials provide them with the most successful learning situation. Writing notes or instructions can help them remember information, and physical involvement in class with related activities may help them understand new information.

- **Group.**- Students learn more easily when they study with at least one other student, and they will be more successful completing work well when they work with others. They value group interaction and class work with other students, and they remember information better when they work with two or three classmates. The stimulation they receive from group work helps them learn and understand new information.
- **Individual.**- students learn best when they work alone. They think better when they study alone, and they remember information they learn by themselves. They understand new material best when they learn it alone, and they make better progress in learning when they work by themselves.

The last one was the *AFFECTIVE* it refers to the left and right hemispheres. Those students that have a preference in the **left** one tend to be more analytical and reflexive, and those with a **right** preference tend to be more emotional, interactives, and auditives.

In order to have success in learning, it is important to know and develop learning styles, but there are some factors which are important to take into account. I agree with the idea of Dunn who categorizes those factors as:

- **Immediate environment:** (sound, light, temperature, and seating design.)
- **Emotionality:** motivation, persistence, responsibility/conformity and need for internal or external structure
- **Sociological factors:** learning alone, with a partner, as part of a small group or team, with peers, with an authoritative or collegial adult, and/or in a combination of ways.
- **Physiological factors:** auditory, visual, tactile and/or kinesthetic perceptual preferences; food or liquid intake, chronobiological energy levels, mobility needs.

There is a question which is important to ask: Why are learning styles important for students?. There are some reasons that I considered important to mention.

Learning styles :

- 1 Permit students to identify how they prefer to learn.
- 2 Suggest a basis for redesigning the classroom environment to complement many students' needs for sound, quiet, bright or soft light, temperature, or seating design
- 3 Order the perceptual strengths through which individuals should begin studying, shows how each student should do his or her homework.

2.7 Relationship between personality and learning styles

This is the last part of chapter two, and the question is that if there is a relationship between personality and learning styles. Learning style questionnaires are very important in different fields such as in business, industry, career personality types, and teaching.

Regarding teaching learning style is important because it helps teachers to understand how students learn. There are some theorists such as Shadbolt (1978) who demonstrated that introverts and neurotics performed better with structured teaching methods compared with unstructured teaching methods. Similarly, Eysenck (1978) noted that personality and learning are closely linked. Extraverts tend to socialize and lack concentration and are thus distracted from academic work. High neurotic scorers tend to let nerves interfere with their work.

Likewise Drummond and Stoddard (1992) noted the overlap between a learning style instrument and the Myers-Briggs Type Indicator. Another example of about the study and importance of learning styles is was with Furnham (1992) who investigated the relationship between personality and learning style using the Eysenck Personality Questionnaire(1975) and the Learning Styles Questionnaire (LSQ Honey & Mumford, 1992) based on the Kolb's learning cycle model (Kolb 1984). In Kolb's model, learning is seen as a continuous cycle in which a person has a learning experience, reviews the experience, concludes from that experience and plans the next step.

Due to these facts I consider that there is a relationship between personality and learning styles. In this project I will explain how personality traits such as

introversion-extroversion, neuroticism, and psychoticism are related to the perceptual learning styles preferences.

In the case of the English Language Major at the Universidad de Quintana Roo, some students have shown certain characteristics which have to do with the personality traits. For example, there some students who are good at speaking in front of public, but others do not.

There are students who show a tendency of neuroticism due to their behavior, for instance when they over worry about simple tasks such as looking for some information and if they do not get what they are looking for, they get desperate and mad at those who are around them. There are also students who are always criticizing other's works without important arguments, and fool their classmates all time.

Regarding learning styles, a classroom is the indicated place to observe different ways of learning. For example, there are some students who are good at reading silently and analysing every aspect of the reading, while others only focus on global aspects of the reading.

I would say at first sight what extroverted's learning style is, due to most of the times they perform better in groupal activities. I agree when Reid (mentions that not only one type of learning style has to fit in every personality trait. A person can develop more than one type of learning style. For example, extroverts can also develop kinesthetic learning style.

2.8 Research questions

After reviewing the literature I posed the following research questions:

RQ-1 Is there a relationship between EFL students' personality and their learning styles?

RQ-2 Is there a relationship between EFL students' age and their learning styles?

RQ-3 Is there a difference between female and male students in terms of learning styles?

RQ-4 Is there a difference in learning styles across EFL students' levels of proficiency?

RQ-5 What is the nature among the learning styles?

The first research question aims to find out the possible relationship between personality and learning styles. The second research question explores the EFL students' age regarding learning learning styles. The third research question investigates the differences in gender in terms of learning styles. Research question four looks into the differences in learning styles across EFL students' levels of proficiency. Finally, question five attempts to describe the nature of learning styles across the sample, that is, if they are interrelated.

Chapter 3 Method

The research design for this study which was conducted in 2008, was descriptive/correlational. In this project, the way in which this research was carried out was through the application of three questionnaires which determined the kind of personality, and students' learning styles, so that at the end students can find out if both constructs can be correlated or not.

The variables used regarding to the participants are sex, age, nationality, level of proficiency, semester, and work they were chosen due to the question hypothesis mentioned before so that readers of this research can identify the factors which influenced the origin on each research question.

This chapter of the methodology will be explained since the conceptual level which describes the focus of study, in this case, the participants and the instruments that are necessary to carry out the first part of the methodology, then at an operational level, it involves everything that has to do with how data collection was organized (procedure, and data analysis).

3.1 Participants

The students were from the University of Quintana Roo from the second, fourth and sixth semester. The environment in which both questionnaires were applied was excellent because the participants showed a great interest and enthusiasm in knowing about their personality traits and their learning styles. At the end they asked me about how would they know their results, so they asked me for my e-mail. In this way, I realized that the topic of my research was attractive and interesting for them.

Individual participating in the project were 103 students of the English Language Major of the University of Quintana Roo. The group was made up of 70 woman and 33 men, they were aged between 18 and 44, and the mean age of the students was 22.16 years. 101 students were Mexican, 1 taiwanese, and 1 portuguese.

37 of these students worked and 66 did not work. These students were from different semesters, 17 students were of second semester, 45 of fourth and 41 of sixth. I took into account their level of proficiency, 18 were beginners, 74 were in intermediate level, and 11 in advanced. With this sample of students I could identify their preferences in the way they behave and learn.

3.2. Instruments

The instruments I used were two, both instruments were provided by Dr. Marin (personal communication). The first was the Eysenck Questionnaire (EPQ-R) it contained 83 questions that described personality regarding to the three dimensions Extraversion- Introversion, Neuroticism and Psychoticism. The questionnaire asked students to check on yes/no according to their preferences (see Appendix A).

The other was the Perceptual-Learning Style Preference (PLSP) by J. Reid (see Appendix B). This self-report questionanaire helped learners identify they way they learn best, -the way the prefer to learn. The 30 questions cover Reid's six learning style preferences, with six statements for each preference. For example for those who were visuals it said: "I learn better by reading than by listening to

someone”, and it also was by ticking yes/no according to their preferences. These two questionnaires helped me to find relationships about personality and learning styles.

3.3. Procedure

Once I had explained to them the purpose of my research. The procedure I followed to apply these questionnaires was to select which questionnaire I was going to apply first, then the second, and third. In this case, the first one was the Eysenck Questionnaire (EPQ-R), so in this way it helped me to identify the level of extroversion-introversion regarding to students, moreover, to find out the probably relationship that there is in both dimensions regarding to the Neuroticism and Psychoticism dimensions. The following questionnaire was the one by J.Reid about Perceptual Learning Styles Preferences (PLSP) which will helped me to determine the preference that students have when they learn, store information and study strategies. For example, those who are visual understand better if they read by themselves the instructions or information in general or if they need to remember information from lectures or oral directions, these students tend to take notes., kinaesthetic students are involved physically in classroom experiences such as role-playing in the classroom, or individual who prefer to work alone , and so on.

Once I selected the order of the application of the questionnaires, I asked for permission to visit the groups from second, fourth, and sixth semester of the English Language Major from the University of Quintana Roo, and then I explained the purpose of my research to the teachers in charge of those groups.

In the classrooms, I introduced myself and explained briefly to the students the aim of my research and the information of the questionnaires, I told them to answer the questionnaires trying to be the most honest they could be, so that the results could be valid. The instructions of the questionnaires were clearly printed, as well as expressed and read by myself.

3.4.Data analysis

The way I organized the information I obtained, was first by scoring each questionnaire. As I mentioned in the previous paragraph I began with the personality questionnaire because I needed to know first the origin of students'behaviour, so that I could relate it to learning styles. Once I scored them I entered them into an excel program for data analysis, after that, I used the SPSS program to convert those results in order to find correlations among the scores that were obtained from the Personality trait of Extraversion and the six perceptual learning styles to compare them.

The first questionnaire that I scored was the (EPQ-R) about Personality because it helped me to determine first the level of extraversion-introversion in each student, and according to that, I found similarities and differences regarding to personality. The second questionnaire I analyzed was the (PLSP) Learning Styles which helped me to identify the learning or learning styles of extroverted and introverted students, and compare both.

Chapter 4. Results and discussion

In this section, the research question hypothesis which were posed in chapter 2 will be answered and explained according to the results obtained in the questionnaires of personality traits and learning styles that were applied to students from the English Language Major of the University of Quintana Roo. This part of the research will show whether there are correlations between the personality traits and learning styles, apart from exploring if there are correlations among variables such as age, level of proficiency, and gender regarding learning styles. The last research question will explain what is the nature of the correlations among the six learning styles.

4.1 The relationship between EFL students' personality and their learning styles

Table 4.1 shows the personality traits Psychoticism, Extroversion and Neuroticism and the six learning styles. The results from the correlation between the Personality traits and Learning styles are as follows.

In the questionnaires I applied, I found that Psychoticism correlates with the Kinesthetic ($r = -.234$) and Tactile ($r = -.218$) learning styles (see Table 4.1)

Students with this trend prefer activities in which they are involved physically in classroom experiences, participating in activities, field trips, and role-playing, touching and working with materials provide them with the most successful learning situation.

Extroversion positively correlated with only one type of learning style, in this case, the kinesthetic, the correlation was ($r = .260$), having with this that extraverts may learn better with the kinesthetic learning style.

**Table 4.1 CORRELATION AMONG THE PERSONALITY TRAITS AND LEARNING
STYLES**

		Psychoticism	Extraversion	Neuroticism	Auditory	Visual	Kinesthetic	Groupal	Tactile	Individual
Psychoticism	Pearson	1	-.043	.188	-.029	-.039	-.234(*)	-.096	-.218(*)	.122
	Correlation									
	Sig. (2-tailed)	.	.665	.056	.773	.695	.017	.331	.027	.217
	N	104	104	104	104	104	104	104	104	104
Extraversion	Pearson	-.043	1	-.421(**)	.112	-.168	.260(**)	.189	.072	-.118
	Correlation									
	Sig. (2-tailed)	.665	.	.000	.256	.088	.008	.055	.466	.232
	N	104	104	104	104	104	104	104	104	104
Neuroticism	Pearson	.188	-.421(**)	1	-.004	-.034	-.113	-.050	.057	.065
	Correlation									
	Sig. (2-tailed)	.056	.000	.	.968	.734	.255	.612	.567	.515
	N	104	104	104	104	104	104	104	104	104
Auditory	Pearson	-.029	.112	-.004	1	-.269(**)	.090	.154	.074	-.136
	Correlation									
	Sig. (2-tailed)	.773	.256	.968	.	.006	.362	.118	.453	.170
	N	104	104	104	104	104	104	104	104	104
Visual	Pearson	-.039	-.168	-.034	-.269(**)	1	-.077	-.143	-.003	.349(**)
	Correlation									
	Sig. (2-tailed)	.695	.088	.734	.006	.	.436	.148	.976	.000
	N	104	104	104	104	104	104	104	104	104
Kinesthetic	Pearson	-.234(*)	.260(**)	-.113	.090	-.077	1	.196(*)	.492(**)	-.239(*)
	Correlation									
	Sig. (2-tailed)	.017	.008	.255	.362	.436	.	.046	.000	.015
	N	104	104	104	104	104	104	104	104	104
Groupal	Pearson	-.096	.189	-.050	.154	-.143	.196(*)	1	.212(*)	-.667(**)
	Correlation									
	Sig. (2-tailed)	.331	.055	.612	.118	.148	.046	.	.030	.000
	N	104	104	104	104	104	104	104	104	104
Tactile	Pearson	-.218(*)	.072	.057	.074	-.003	.492(**)	.212(*)	1	-.074
	Correlation									
	Sig. (2-tailed)	.027	.466	.567	.453	.976	.000	.030	.	.455
	N	104	104	104	104	104	104	104	104	104
Individual	Pearson	.122	-.118	.065	-.136	.349(**)	-.239(*)	-.667(**)	-.074	1
	Correlation									
	Sig. (2-tailed)	.217	.232	.515	.170	.000	.015	.000	.455	.
	N	104	104	104	104	104	104	104	104	104

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

These results are relevant because they show the unconscious preferences that students have when they learn. In the specific case of learning English, teachers need to take into account these results so that the process of teaching and learning in students can be successful.

4.2 The relationship between EFL students' age and their learning styles

Regarding the second hypothesis, I found a zero correlation between EFL students' age and their learning styles as It is shown in table 4.2:

Table 4.2 AGE CORRELATED TO LEARNING STYLES

		Age	Auditory	Visual	Kinesthetic	Groupal	Tactile	Individual
Age	Correlación de Pearson	1	.111	.049	.139	.076	.042	-.100
	Sig. (bilateral)		.262	.625	.159	.441	.671	.314
	N	104	104	104	104	104	104	104
Auditory	Correlación de Pearson	.111	1	-.269(**)	.090	.154	.074	-.136
	Sig. (bilateral)	.262		.006	.362	.118	.453	.170
	N	104	104	104	104	104	104	104
Visual	Correlación de Pearson	.049	-.269(**)	1	-.077	-.143	-.003	.349(**)
	Sig. (bilateral)	.625	.006		.436	.148	.976	.000
	N	104	104	104	104	104	104	104
Kinesthetic	Correlación de Pearson	.139	.090	-.077	1	.196(*)	.492(**)	-.239(*)
	Sig. (bilateral)	.159	.362	.436		.046	.000	.015
	N	104	104	104	104	104	104	104
Groupal	Correlación de Pearson	.076	.154	-.143	.196(*)	1	.212(*)	-.667(**)
	Sig. (bilateral)	.441	.118	.148	.046		.030	.000
	N	104	104	104	104	104	104	104
Tactile	Correlación de Pearson	.042	.074	-.003	.492(**)	.212(*)	1	-.074
	Sig. (bilateral)	.671	.453	.976	.000	.030		.455
	N	104	104	104	104	104	104	104
Individual	Correlación de Pearson	-.100	-.136	.349(**)	-.239(*)	-.667(**)	-.074	1
	Sig. (bilateral)	.314	.170	.000	.015	.000	.455	
	N	104	104	104	104	104	104	104

** La correlación es significativa al nivel 0,01 (bilateral).

* La correlación es significativa al nivel 0,05 (bilateral).

As it can be seen, the age factor was secondary, as it did not influence with the learning styles as personality traits did. The explanation of this is based on our biological system, specifically in the ARAS system, according to the stimulus people receive, they react different, what is more important is the degree of introversion or extraversion in a person and this will determine the process of learning, and the most preferred learning styles in a person.

4.3 Difference between female and male students in terms of learning styles.

Regarding gender, the difference between female and male in terms of learning styles is shown in table 4.3, in which men have a trend towards the visual learning style. I consider it is due to the biological aspect that men focuses more in visual things that women (mean= 3.52 vs 2.99).

Table 4.3 GENDER CORRELATED TO LEARNING SYTTLES

	Sex	N	Mean	Std. Deviation	Std. Error Mean
Auditory	Male	33	3.88	.960	.167
	Female	70	3.66	1.006	.120
Visual	Male	33	3.52	1.278	.222
	Female	70	2.99	1.469	.176
Kinesthetic	Male	33	4.42	.936	.163
	Female	70	4.39	.856	.102
Groupal	Male	33	2.94	1.870	.325
	Female	70	2.76	1.837	.220
Tactile	Male	33	3.48	1.395	.243
	Female	70	3.61	1.526	.182
Individual	Male	33	2.97	1.928	.336
	Female	70	2.70	1.906	.228

As it can be noticed, the gender factor was similar to the age factor due to it did not correlate with learning styles. And although there is not any correlation, but there is a trend that we cannot discard. it is important to keep it in mind, and as teachers it will help us to understand our students process of learning better, and it will help us to vary our activities in class in a way that it can be interesting for both sides.

4.4 Differences in learning styles across EFL students' levels of proficiency

In table 4.4 students learning styles and levels of proficiency were compared, but there was no correlation. But it is noticeable that there is a slightly trend.

Table 4.4 LEARNING STYLES ACROSS LEVELS OF PROFICIENCY

		N	Mean	Std. Deviation
Auditory	Beginning	18	3.89	.963
	Intermediate	74	3.72	.973
	Advanced	11	3.55	1.214
	Total	103	3.73	.992
Visual	Beginning	18	2.94	1.626
	Intermediate	74	3.20	1.375
	Advanced	11	3.18	1.537
	Total	103	3.16	1.426
Kinesthetic	Beginning	18	4.50	.618
	Intermediate	74	4.35	.957
	Advanced	11	4.55	.688
	Total	103	4.40	.878
Groupal	Beginning	18	3.22	1.957
	Intermediate	74	2.78	1.845
	Advanced	11	2.36	1.629
	Total	103	2.82	1.840
Tactile	Beginning	18	3.83	1.339
	Intermediate	74	3.54	1.510
	Advanced	11	3.36	1.567
	Total	103	3.57	1.479
Individual	Beginning	18	2.83	2.036
	Intermediate	74	2.73	1.904
	Advanced	11	3.09	1.868
	Total	103	2.79	1.908

Although there were no significant differences in learning styles across levels of proficiency, it is important to mention that the trend is noticeable regarding the auditory and visual learning styles and the level of proficiency in beginners. This result is logical because we as human beings most of the time trend to pay more attention to things that are new for us.

4.5 The nature of the learning styles of the sample

In this research I identified which was the most preferred learning style by the students of the English Language Major, and also I will explain the nature of these learning styles among them.

The most preferred learning style by the students was *kinesthetic* learning style, then *auditory*, *tactile*, *visual*, and *individual*, but the learning style that was the least preferred among these students was *groupal*. These results are shown in table 4.5 as follows:

Table 4.5 THE MOST PREFERRED LEARNING STYLE

	N	Mínimo	Máximo	Media	Desv. típ.
Kinesthetic	104	2	5	4.39	.875
Auditory	104	1	5	3.73	.988
Tactile	104	0	5	3.58	1.473
Visual	104	0	5	3.14	1.424
Individual	104	0	5	2.81	1.911
Groupal	104	0	5	2.79	1.852
N válido (según lista)	104				

The order of this preference regarding learning styles is important because it demonstrates which learning styles have a better impact on students at the moment of learning. Moreover, it would help the teacher to notice the students' strength or weakness regarding those learning styles to process information and learn. The first learning style is the kinesthetic, it clearly shows how important are gestures and movements when teachers explain something, it does not matter if they are introvert or extrovert, students will never forget the way you made them feel in class. Secondly, the auditory learning style was significant for the students because activities such as listening to a song, listen to a fill in exercise, a conversation or

dictation make that the students focus more on that specific task and help the teacher to keep control in class; therefore, if the movements are accompanied by a good tone of voice, the process of teaching and learning would be modified in a positive way. Third, the tactile learning style was chosen by the students because once they have experienced the first two styles, they like the idea to put into practice what they have learned by means of different activities such as physical involvement or hands-on. Visual was located in the fourth place due to some students learn better at looking attractive material with colorful shapes or landscapes and these students have patience to design or draw and observe abstract figures. Something that is important to mention about the preference for the visual style regarding introverts is that they concentrate better because they are more patient, but extroverts do not. This difference is because extroverts have a tendency to be impulsive and lose concentration rapidly on things. Eventhough the individual style was not among the favorite learning styles, it was considered useful for students to make them feel relaxed and concentrate better on some tasks. Finally, the last preferred was the groupal, maybe because most of these students who were interviewed had a tendency to be introverts. An explanation would be given in terms of the arousal theory in which extraverts need to be aroused to work and are superior at demanding attention and memory tasks because the difficulty of these tasks lowers the optimal level of cortical arousal for performance. Conversely, introverts have impairments in learning if they are under conditions of distraction or a lot of noise because they work better in non- stimulating or de-arousing environments.

In table 4.6 I will explain the nature of the relationship among the six learning styles:

Table 4.6 THE NATURE AMONG THE 6 LEARNING STYLES

		Auditory	Visual	Kinesthetic	Groupal	Tactile	Individual
Auditory	Correlación de Pearson	1	-.269(**)	.090	.154	.074	-.136
	Sig. (bilateral)		.006	.362	.118	.453	.170
	N	104	104	104	104	104	104
Visual	Correlación de Pearson	-.269(**)	1	-.077	-.143	-.003	.349(**)
	Sig. (bilateral)	.006		.436	.148	.976	.000
	N	104	104	104	104	104	104
Kinesthetic	Correlación de Pearson	.090	-.077	1	.196(*)	.492(**)	-.239(*)
	Sig. (bilateral)	.362	.436		.046	.000	.015
	N	104	104	104	104	104	104
Groupal	Correlación de Pearson	.154	-.143	.196(*)	1	.212(*)	-.667(**)
	Sig. (bilateral)	.118	.148	.046		.030	.000
	N	104	104	104	104	104	104
Tactile	Correlación de Pearson	.074	-.003	.492(**)	.212(*)	1	-.074
	Sig. (bilateral)	.453	.976	.000	.030		.455
	N	104	104	104	104	104	104
Individual	Correlación de Pearson	-.136	.349(**)	-.239(*)	-.667(**)	-.074	1
	Sig. (bilateral)	.170	.000	.015	.000	.455	
	N	104	104	104	104	104	104

** La correlación es significativa al nivel 0,01 (bilateral).

* La correlación es significante al nivel 0,05 (bilateral).

As it can be seen the correlation among the six learning styles, I will begin with the first learning style that was the most preferred among the students of the English Language Major, it was the *kinesthetic*. I found that this learning style correlated positively with groupal, and tactile. The way these learning styles are related are due to the explanation that students with kinesthetic characteristics learn best by experience, by being involved physically in classroom experiences. But at the same time, kinesthetic did not correlate with individual.

The second learning style was *auditory*, it correlated negatively with visual, having with this, that those students who are good at listening activities are not good in visual. Visual students remember and understand information and instructions

better if they read them while auditive information by reading aloud or moving their lips as they read, especially when they are learning new material.

The following learning style was *tactil*, students with this learning style develop themselves better when using the kinesthetic and groupal learning styles. These people like to experience new material and at the same time they enjoy being involved in different activities.

The fourth learning style was *visual* and it correlated positively with the individual learning style, that is to say that individual students develop better the visual learning style. Introvert students work and concentrate better alone than in groups, so these students focus on specific aspects (scanning), because they are not impulsive as extroverts.

The individual learning style did not correlate with groupal and kinesthetic, but visual. This match is based on the introvert personality trait which these students prefer to work under non-stimulating environments, these students concentrate better, and they are patient; therefore, they are analytical and are able to solve problems easily because they are not impulsive as extroverts.

Finally, the *groupal* learning style correlated positively with kinesthetic and *tactil*, but it correlated negatively with individual. These correlations end to confirm the close relationship between personality traits and learning styles. As I have mentioned before, the behaviour, attitude, and type of learning are related to the biological system in a person. Extrovert students are more motivated with activities that have to do with movement, memory, and hands-on, so that they put into practice what they have learned.

Chapter 5 Conclusion

This final chapter comprises, among other aspects, the major conclusions of the study, whose main objective was to explore the relationship between personality and learning styles in students, especially with students of the English Language major at University of Quintana Roo. It begins with a summary of major findings, which are considered the major conclusions of the study and its purpose. Next, the limitations of the investigation are discussed, followed by some suggestions for further research, and finally and more importantly some pedagogical implications are mentioned.

5.1 Major conclusions of the study

In chapter six, we have given an account of the results of the investigation in quantitative terms. At the same time, we have attempted to provide not only a description and interpretation of the results but also an explanation for them based on the work of H. J. Eysenck who included both a descriptive and an explanatory level in his personality theory. What follows is a summary of the principal findings of our study following the sequence in which the research questions and hypothesis were presented in 2.8.

RQ-1 Is there a relationship between EFL students' personality and their learning styles?

The results shown in chapter 4 and table 4.1 demonstrate that this relationship exists, having with this that Psychoticism correlates with the Kinesthetic ($r = -.234$)

and Tactile ($r = -.218$) learning styles, and that The extraversion correlated with only one type of learning style, in this case, the kinesthetic, the correlation was ($r = .260$).

RQ-2 is there a relationship between EFL students' age and their learning styles?

In this hypothesis the results clearly show that there is no correlation between EFL students' age and their learning styles as It was shown in table 4.2. The reason is explained based on the biological system of each person. Eventhough a person who is 30 and if she or he is extrovert, this person will not develop the same type of learning as a person who is introvert and is 18 as it was mentioned before in chapter two. There is no specific case that states that people from certain ages develop a specific type of learning, why? Because in their brain the process of retaining information and learn is different.

RQ-3 Is there a difference between female and male students in terms of learning styles?

Although there was no difference, there is a trend in which men prefer the visual learning style. Regarding to the English language, it is important to mention that there has been research about learning strategies which states that woman use and develop learning strategies better than man.

For example, women develop social strategies better than men perhaps because of women's stronger social nature (Politzer 1983 and Oxford 1989). Some women strategies are: memory, metacognitive, affective, and social strategies.

Women are good at vocabulary solving problem while men are good at reading peace and problem solving, they are more analitic.

RQ-4 Is there a difference in learning styles across EFL students' levels of proficiency?

The results of this hypothesis show that there is no difference, but there is a trend which demonstrates that beginners use more the auditive and visual learning styles, as it was shown in table 4.4. The answer to this trend may be because in their surveys, they way that their level was considered was only a possibility, it was not evaluated by any official exam which assessed their level. On the other hand, another possible answer may be because as a beginner whatever is new is attractive and encompass all attention that is to say that people trend to develop more the auditive and visual senses.

RQ-5 What is the nature among the learning styles?

Finally in table 4.5 it was interesting to know which were the most preferred learning styles by the students. The first was the *kinesthetic* learning style, second *auditory*, third *tactile*, then *visual*, and finally *individual*, but the learning style that was the least preferred among these students was *groupal*.

Then, in table 4.6 the relationships among the six learning styles the results were as follows:

- *kinesthetic* learning style correlated positively with groupal, and tactile.
- *Auditory* correlated negatively with visual.

- *Tactil* correlated positively with kinesthetic and groupal learning styles.
- *Visual* correlated positively with the individual learning style.
- *Groupal* correlated positively with kinesthetic and tactil, **but** it correlated negatively with individual.
- *Individual* correlated positively with visual.

5.2 General conclusions

Now that I have presented a summary of the major findings of the investigation, I can briefly recapitulate them in the form of general conclusions. All in all, our main variables of interest were personality traits and learning styles, It is very vital to know how both aspects are somewhat related and play an important role in the process of teaching and learning English.

Several times, I had heard the terms of Extroversion, Introversion, Neuroticism and Psychoticism, but I never imagined how they were related to our process of learning. It is really interesting the way Eysenck provides a biological explanation for each personality trait, as it was mentioned in chapter 2. Similarly, it is important to know the different types of learning styles that we all human beings have which were well classified by Joy Reid into affective, cognitive and sensorial.

What is amazing from this research is to know how our brain is activated, how it functions, and all the process that it carries out to store information and develops the learning in humans.

Finally, it is important to mention that both dimensions of our personality introversion-extroversion are equally important. Introverts and extroverts have their own pace to learn, their own strategies, and their own learning styles.

5.3 Limitations of the study

Not everything in life is perfect, and sometimes things are different from the way we have originally planned. Regarding the limitations of the study were mostly concerned with the research instruments used for collecting personality and learning styles data.

- 1) The Eysenckian Personality Questionnaire and the Learning styles questionnaires were well designed, the problem was that I could not applied them to all semesters, I only used a small sample. I applied these questionnaires in exam periods, so I could not find all the English language Major teachers; therefore, I only worked with three semesters, although they were two groups per semester, it was not an enough sample.

- 2) Another shortcoming was that I needed to apply an interview guide, but it was no possible because the time factor, students were in exams and then they were on vacation. If I applied the interview guide, I had to grade first the Eysenck questionnaire and then choose who had been the most extroverted and introverted person per group, but I could not.

5.4 Suggestions for further research

In our lives we always research, everytime we want to know about something we ask, and this is a process that never ends. To understand these different phenomena we have to investigate about the situation that we are interested in or about an important event that is happening in our world. Therefore; what follows are two recommendations for further research regarding Personality and learning styles.

- 1) Due to this relationship between personality and learning styles exists, it would be good to research more about it, so that teachers really have concern about it and feel motivated to know their students, so that the process of teaching and learning is success in the future.

- 2) Once teachers have noticed the personality trait, they should look for new strategies that are interesting and really dynamic for students at the moment of learning English, so that they feel motivated. Strategies for introverts and extroverts that are effective for them.

5.5 Pedagogical implications

People that are involved in different fields of knowledge have the responsibility to do research. Doctors, lawyers, psychologists, scientists, teachers and so on. In this globalized world we need to face different circumstances in which we have to be well prepared to solve them.

The main purpose of this thesis was to find if there was any relationship between personality and learning styles; therefore, we found that it is somewhat true, the relationships exist. But the second question is really important too. What is the purpose of this research? - In which way it will help teachers and students regarding the process of teaching and learning.

How many times we have seen frustrated teachers and students when they teach or learn? What is the origin of this problem? Those who are involved in the field of education maybe have asked themselves one of these questions.

In my opinion this relationship is the basic to solve those frustrating questions, the importance of identifying our students' personality it will help teachers to visualize which activities work out with their students that could be significant.

One of the negative aspects when we teach is that we do not know our students personality, or we think that it is not really important, so we disregard it, and what is even worse is to have the wrong idea that "if an activity works well with one, it must work well for the rest." This is a terrible misunderstood because we are not taking into account the personality and learning style factors in students.

References

- Allport, G. (1937) *Personality: A Psychological Interpretation*. London: Constable.
- Autonomic nervous system. (n.d). Retrieved April 18, 2007, from http://en.wikipedia.org/wiki/Autonomic_nervous_system
- Blood platelets. (n.d). Retrieved May 1, 2007, from <http://en.wikipedia.org/wiki/Platelet>
- Boeree, G. (2006). *Personality Theories*. Retrieved July 25, 2007, from <http://webpace.ship.edu/cgboer/perscontents.html>
- Cerebral Cortex. (n.d). Retrieved April 18, 2007, from http://en.wikipedia.org/wiki/Cerebral_cortex
- Dopamine. (n.d). Retrieved April 22, 2007, from <http://en.wikipedia.org/wiki/Dopamine>
- Dun,R.& Dunn, K. (1978). *Teaching students through their individual learning styles: A practical approach*. Reston, VA: Reston Publishing Company.
- Endocrine system. (n.d). Retrieved April 19, 2007, from http://en.wikipedia.org/wiki/Endocrine_system
- Eysenck, M. W. (1982) *Attention and arousal: Cognition and Performance*. New York: Springer.
- Eysenck, H. J. (1962) Conditioning and personality. *British Journal of Psychology*, 53, 3, 299-305.
- Eysenck, H. J. (1947) *Dimensions of personality*. London: Methuen.
- Eysenck, H. J. (1991) Dimensions of personality: 16, 5 or 3? Criteria for a taxonomic paradigm. *Personality and Individual Differences*, 12, 773-790.
- Eysenck, H. J. (1965) Extraversion and the acquisition of eyeblink and GSR conditioned responses. *Psychological Bulletin*, 63, 4, 258-270.
- Eysenck, M. W. (1975). Extraversion, arousal and speed of retrieval from secondary storage. *Journal of Personality*, 43, 390-401.
- Eysenck, M. W. and Eysenck, H. J. (1980) Mischel and the concept of personality. *British Journal of Psychology*, 71, 191-209.
- Eysenck, H. J. (1967). *The biological basis of personality*. Springfield, IL: Charles C Thomas.

Eysenck, H. J., and Eysenck, S. B. (1991) *The Eysenck Personality Questionnaire-Revised*. London: Hodder and Stoughton.

Eysenck, H. J. (1970) *The Structure of Human Personality*. London: Methuen.

Gardner, H; Macintyre (1992). *Language teaching*, 25, (pp. 211-220). Cambridge: Cambridge University Press.

Gonadal hormones. (n.d). Retrieved April 23, 2007, from <http://en.wikipedia.org/wiki/Gonads>

Heffner Media Group, Inc. (2004). Retrieved September 21, 2008, from <http://allpsych.com/dictionary/f.html>

Hernández, R. L. (2003). Estilos de aprendizaje predominantes en una población representativa de estudiantes de inglés del CELE de la UNAM. Tesis de Maestría, UNAM, México, D.F.

Jung, C. (1998) Psychological types. In C.L. Cooper and L. Pervin (eds) *Critical Concepts in Psychology*. (pp. 28-39). London: Routledge.

Min, Kwang. (1998). Eysenck's PEN Model: *Its contribution to personality psychology*. Retrieved June 20, 2007, from <http://www.personalityresearch.org/papers/jang.html>

Monoamine oxidase. (n.d). Retrieved May 1, 2007, from http://en.wikipedia.org/wiki/Monoamine_oxidase

Nucleus accumbens. (n.d). Retrieved April 22, 2007, from http://en.wikipedia.org/wiki/Nucleus_accumbens

Oxford, R. (1990) Language Learning Styles. *What every teacher should know*. Boston. Heinle and Heinle.

Personality Psychology. (2007). Retrieved April 18, 2007, from http://en.wikipedia.org/wiki/Personality_psychology

Reid, J. (1987) The Learning Style Preferences of ESL Students. *TESOL Quarterly*, 21, 1, 87-111.

Rocha, J; Martins, J. (n.d) The Limbic System: *The center of emotions*. Retrieved August 20, 2008 from <http://www.healing-arts.org/n-r-limbic.htm>

The Oxford Dictionary of Sports Science & Medicine. (1998). Retrieved April 18, 2007, from <http://www.answers.com/topic/cortical-arousal>

The twins brought up on either side of the Iron Curtain... but who lived identical lives (2007). Retrieved December 20, 2007, from

APPENDIX A

EPQ – R H. J. Eysenck et al

Por favor, conteste cada pregunta poniendo una cruz (X) sobre el SÍ o el NO que le siguen. No hay respuestas correctas o incorrectas, ni preguntas con trampa. Trabaje rápidamente y no piense demasiado en el significado exacto de las mismas.

POR FAVOR, NO DEJE NINGUNA PREGUNTA SIN RESPONDER

1. ¿Se detiene a pensar las cosas antes de hacerlas?..... SI NO
2. ¿Su estado de ánimo sufre altibajos con frecuencia?..... SI NO
3. ¿Es usted una persona que le gusta platicar mucho?..... SI NO
4. ¿Se siente a veces desdichado/a sin motivo?..... SI NO
5. ¿Alguna vez ha querido llevarse más de lo que le correspondía en un reparto?..... SI NO
6. ¿Es usted una persona alegre y llena de ánimo? SI NO
7. Si usted asegura que hará una cosa, ¿siempre mantiene su promesa, sin importar le las molestias que ello le podría ocasionar?..... SI NO
8. ¿Es una persona irritable?..... SI NO
9. ¿Pone atención a lo que opinan los demás?..... SI NO
10. ¿Alguna vez ha culpado a alguien por algo que había hecho usted?..... SI NO
11. ¿Son *todos* sus hábitos buenos y deseables?..... SI NO
12. ¿Tiende a mantenerse apartado/a en las situaciones sociales?..... SI NO
13. A menudo, ¿se siente hartado/a?..... SI NO
14. ¿Ha tomado alguna vez alguna cosa (aunque no fuese más que un alfiler o un botón) que perteneciese a otra persona?..... SI NO
15. Para usted, ¿los límites entre lo que está bien y lo que está mal son menos claros que para la mayoría de la gente?..... SI NO
16. ¿Le gusta salir de casa a menudo?..... SI NO
17. ¿Es mejor actuar como uno/a quiera que seguir las normas sociales?..... SI NO
18. ¿Tiene a menudo sentimientos de culpabilidad?..... SI NO
19. ¿Diría de sí mismo/a que es una persona nerviosa?..... SI NO
20. ¿Es usted una persona sufridora?..... SI NO
21. ¿Alguna vez ha roto o perdido algo que perteneciese a otra persona?..... SI NO
22. ¿Generalmente toma la iniciativa al hacer nuevas amistades?..... SI NO
23. ¿Los deseos personales están por encima de las normas sociales?..... SI NO
24. ¿Diría de sí mismo/a que es una persona tensa o muy nerviosa?..... SI NO
25. Por lo general, ¿suele estar callado/a cuando está con otras personas?..... SI NO

26. ¿Cree que el matrimonio está anticuado y debería abolirse?..... SI NO
27. ¿Puede animar fácilmente una fiesta aburrida?..... SI NO
28. ¿Le gusta contar chistes e historias divertidas a sus amigos/as?..... SI NO
29. ¿La mayoría de las cosas le son indiferentes?..... SI NO
30. De niño/a, ¿fue alguna vez descarado/a con sus padres?..... SI NO
31. ¿Le gusta mezclarse con la gente?..... SI NO
32. ¿Se siente a menudo apático/a y cansado/a sin motivo?..... SI NO
33. ¿Ha hecho alguna vez trampas en el juego?..... SI NO
34. ¿A menudo toma decisiones sin pararse a reflexionar?..... SI NO
35. ¿A menudo siente que la vida es muy monótona?..... SI NO
36. ¿Alguna vez se ha aprovechado de alguien?..... SI NO
37. ¿Cree que la gente pierde el tiempo al proteger su futuro con
ahorros y seguros?..... SI NO
38. Evadiría impuestos si estuviera seguro/a de que nunca sería descubierto/a?..... SI NO
39. ¿Puede organizar y conducir una fiesta?..... SI NO
40. Generalmente, ¿reflexiona antes de actuar?..... SI NO
41. ¿Sufre de los «nervios»?..... SI NO
42. ¿A menudo se siente solo/a?..... SI NO
43. ¿Hace siempre lo que predica?..... SI NO
44. ¿Es mejor seguir las normas de la sociedad que ir a su aire?..... SI NO
45. ¿Alguna vez ha llegado tarde a una cita o trabajo?..... SI NO
46. ¿Le gusta el bullicio y la agitación a su alrededor?..... SI NO
47. ¿La gente piensa que usted es una persona animada?..... SI NO
48. ¿Cree que los planes de seguros son una buena idea? SI NO
49. ¿Realiza muchas actividades de tiempo libre?..... SI NO
50. ¿Daría dinero para fines caritativos?..... SI NO
51. ¿Le afectaría mucho ver sufrir a un niño/a o a un animal?..... SI NO
52. ¿Se preocupa a menudo por cosas que no debería haber dicho o hecho?..... SI NO
53. ¿Habitualmente, es capaz de liberarse y disfrutar en una fiesta animada?..... SI NO
54. ¿Se siente fácilmente herido/a en sus sentimientos? SI NO
55. ¿Disfruta hiriendo a las personas que ama?..... SI NO
56. ¿Habla a veces de cosas de las que no sabe nada?..... SI NO
57. Prefiere leer que conocer gente?..... SI NO
58. ¿Tiene muchos amigos/as?..... SI NO

59. ¿Se ha enfrentado constantemente a sus padres?..... SI NO
60. ¿Cuando era niño/a, hacía en seguida las cosas que le pedían y sin refunfuñar?..... SI NO
61. ¿Se ha opuesto frecuentemente a los deseos de sus padres?..... SI NO
62. ¿Se inquieta por cosas terribles que podrían suceder?..... SI NO
63. ¿Es usted más indulgente que la mayoría de las personas acerca del bien y del mal?..... SI NO
64. ¿Se siente intranquilo/a por su salud?..... SI NO
65. ¿Alguna vez ha dicho algo malo o desagradable acerca de otra persona?..... SI NO
66. ¿Le gusta cooperar con los demás?..... SI NO
67. ¿Se preocupa si sabe que hay errores en su trabajo?..... SI NO
68. ¿Se lava siempre las manos antes de comer?..... SI NO
69. ¿Casi siempre tiene una respuesta «a punto» cuando le preguntan algo?..... SI NO
70. ¿Le gusta hacer cosas en las que tiene que actuar rápidamente?..... SI NO
71. ¿Es (o era) su madre una buena mujer?..... SI NO
72. ¿Le preocupa mucho su aspecto?..... SI NO
73. ¿Alguna vez ha deseado morir?..... SI NO
74. ¿Trata de no ser grosero/a con la gente?..... SI NO
75. Después de una experiencia embarazosa, ¿se siente preocupado/a durante mucho tiempo?..... SI NO
76. ¿Se siente fácilmente herido/a cuando la gente encuentra defectos en usted o en su trabajo?..... SI NO
77. ¿Frecuentemente toma decisiones sin pensarlo mucho?..... SI NO
78. ¿Se siente a veces desbordante de energía y otras muy decaído/a?..... SI NO
79. ¿A veces se deja para mañana lo que debería hacer hoy?..... SI NO
80. ¿La gente le cuenta muchas mentiras?..... SI NO
81. ¿Se afecta fácilmente por cualquier motivo?..... SI NO
82. ¿Cuando ha cometido una equivocación, ¿está siempre dispuesto a admitirlo?..... SI NO
83. ¿Cuando tiene mal humor, ¿le cuesta controlarse?..... SI NO

POR FAVOR VERIFIQUE QUE HAYA CONTESTADO TODAS LAS PREGUNTAS.

Matricula: _____
Edad: _____
Semestre: _____

Sexo: _____
Fecha: _____
Nivel de inglés:

Principiantes Intermedio Avanzado

Trabajas _____.

APPENDIX B

CUESTIONARIO SOBRE TIPOS DE APRENDIZAJES PERCEPTIVOS

Joy Reid

Por favor, conteste cada pregunta poniendo una cruz (X) sobre el SÍ o el NO que le siguen. No hay respuestas correctas o incorrectas, ni preguntas con trampa. Trabaje rápidamente y no piense demasiado en el significado exacto de las mismas.

- | | | |
|---|----|----|
| 1. Entiendo mejor cuando el maestro me indica las instrucciones..... | SI | NO |
| 2. Prefiero aprender practicando o haciendo algo en clase..... | SI | NO |
| 3. Trabajo más cuando estoy con otros..... | SI | NO |
| 4. Aprendo mejor cuando estudio en grupo..... | SI | NO |
| 5. En clase aprendo mejor cuando trabajo con los demás..... | SI | NO |
| 6. Aprendo mejor cuando leo lo que el maestro escribe en el pizarrón..... | SI | NO |
| 7. Aprendo mejor cuando alguien me dice como debo hacer las cosas..... | SI | NO |
| 8. Aprendo mejor cuando hago las cosas en clase..... | SI | NO |
| 9. Recuerdo mejor las cosas cuando las escucho que cuando las leo..... | SI | NO |
| 10. Recuerdo mejor las instrucciones cuando las leo..... | SI | NO |
| 11. Aprendo más cuando puedo hacer un modelo de algo..... | SI | NO |
| 12. Entiendo mejor cuando leo las instrucciones..... | SI | NO |
| 13. Recuerdo mejor las cosas cuando estudio solo (a)..... | SI | NO |
| 14. Aprendo más cuando hago algún proyecto para alguna clase..... | SI | NO |
| 15. Me agrada aprender en clase cuando hago experimentos..... | SI | NO |
| 16. Aprendo mejor cuando hago mapas conceptuales..... | SI | NO |
| 17. Aprendo mejor cuando el maestro da una plática sobre algún tema..... | SI | NO |
| 18. Aprendo mejor cuando trabajo solo (a)..... | SI | NO |
| 19. Entiendo mejor las cosas en clase cuando participo en conversaciones de situaciones reales..... | SI | NO |
| 20. Aprendo mejor en clase cuando escucho a alguien..... | SI | NO |
| 21. Me agrada hacer tarea cuando estoy con más de dos compañeros..... | SI | NO |
| 22. Recuerdo lo que mejor aprendí cuando construyo o creo algo..... | SI | NO |
| 23. Prefiero estudiar con más personas..... | SI | NO |
| 24. Aprendo mejor leyendo que escuchando a alguien más..... | SI | NO |
| 25. Disfruto o me agrada más hacer algo para un proyecto de clase..... | SI | NO |
| 26. Aprendo mejor en clase cuando participo en actividades relacionadas..... | SI | NO |
| 27. Cuando estoy en clase trabajo mejor sola..... | SI | NO |
| 28. Prefiero trabajar en un proyecto por mi mismo..... | SI | NO |
| 29. Aprendo mejor leyendo en libros que escuchando pláticas de algún tema..... | SI | NO |
| 30. Prefiero trabajar solo..... | SI | NO |