

ARMY POLYTECHNIC SCHOOL  
DEPARTMENT OF LANGUAGES

APPLIED LINGUISTICS IN ENGLISH  
PROGRAM

RESEARCH PROJECT

THE INCIDENCE OF THE “**EXPERIENTIAL LEARNING**” AS A STRATEGY TO TEACH VOCABULARY APPLIED TO BASIC COMPUTING SCIENCE AT 7<sup>TH</sup> YEAR OF BASIC EDUCATION, J.M. JIJON ELEMENTARY SCHOOL, DURING THE FIRST TERM, 2007-2008 SCHOOL YEAR.

*By Wilson Fabián Pavón Garcés and Yolanda Quasumba Pachacama*

ADVISORS:

*Cnrl. Ing. Marco Quintana*

*Director*

*Lic. Miguel Ponce*

*Co-director*

Quito, November 2007

## ACKNOWLEDGMENTS

We would like to thank to many marvelous and talented people who have contributed to our thesis. They have helped us in innumerable ways, to our thesis Director Crnl. Ing. Marco Quintana, specially to Lic. Miguel Ponce Co-director for his help and encouragement in the development of the appropriate methodology to teach vocabulary in the Computing Science field.

We want to thank Dr. Oswaldo Villa T. for their valuable input in the writing of this thesis, in addition, we thank other members of Army Polytechnic School and all our friends.

*Yolanda Guasumba Pachacama*

*Wilson Fabián Pavón Garcés*

## DEDICATORY

This project is the result of many people who worked very hard to help my dreams come true. This thesis was carefully done during many hours of research. I would like to thank God, my Army Polytechnic School teachers and specially Dr. Oswaldo Villa T. for their valuable input. I also want to thank my thesis Director Crnl. Ing. Marco Quintana, and Co-director Lic. Miguel Ponce, respectively, for their hard work and dedication. This thesis is dedicated to the memory of my mother, to whom I promised to obtain my degree. I also dedicate my work to my beloved wife, Susana Vallejos, to my children, and my father who supported me during the time I was working on this thesis, to my friends and all people who helped me to reach my goal in the English Linguistic field ESPE.

*Wilson Fabián Pavón Garcés*

## DEDICATORY

Completing a career is truly a pleasing event, and I wouldn't have been able to complete this journey without the aid and support of countless people over the past four years. I must first express my gratitude to my God, who has given me health and fortitude to maintain a balance between my family, work, and studies. I also express my gratitude to my dear teachers for their leadership, support, attention, and hard work. I will always remember my dear friends who I shared with good and bad times. Finally, I want to thank my parents, my husband, and my little son, who were my inspiration source, and specially to my dear mother, who encouraged me to finish my studies.

*Yolanda Guasumba Pachacama*

## APPROVAL SHEET

We, Crnel. Ing. Marco Quintana Director and Lic. Miguel Ponce Co-director are pleased to certify that the research project under the Title “The incidence of the **Experiential Learning** as a strategy to teach Vocabulary applied to Basic Computing Science at 7<sup>th</sup> grade of basic education, J.M. Jijon elementary school, during the first term, 2007-2008 school year”, developed by Wilson Fabián Pavón Garcés and Yolanda Guasumba Pachacama, who have finished all the subjects in Applied Linguistics in English Program of the Army Polytechnic School, have been studied and verified in all its parts, and performed under our guidance and supervision, so its presentation and oral sustaining are authorized at the corresponding University Instance.

Crnl. Ing. Marco Quintana

Thesis Director

Lic. Miguel Ponce

Thesis Co-director

## INDEX

<b>ACKNOWLEDGEMENTS</b> .....	2
<b>DEDICATION</b> .....	3
<b>DEDICATION</b> .....	4
<b>APPROVAL SHEET</b> .....	5
<b>INDEX</b> .....	6
<b>SUMMARY</b> .....	10
<b>INTRODUCTION</b> .....	12
<b>RESEARCH THEME</b> .....	13
<b>PARTE ONE</b> .....	14
<b>1. RESEARCH PROBLEM</b> .....	14
1.1. Problem identification .....	14
1.2. Problem setting .....	15
1.3. Variable working out .....	16
1.4. Objectives .....	17
1.4.1. General .....	17
1.4.2. Specific .....	17
1.5. Justification .....	18
<b>PART TWO</b> .....	20
<b>2. THEORETICAL FRAMEWORK</b> .....	20
2.1. Theoretical and Conceptual Focus .....	20
2.1.1. Epistemological base .....	20
2.1.2. Sociological base .....	20
2.1.3. Psychological base .....	21
2.1.3.1 Behaviorism .....	21

2.1.3.1.1.	Educational Implications -----	22
2.1.3.1.2.	Contracts, Consequences, Reinforcement, and Punishment -----	22
2.1.3.2.	Cognitive Psychology -----	24
2.1.3.3.	Constructivism -----	26
2.1.3.4.	Humanistic -----	28
2.1.3.5.	Social interactionism -----	31
2.2.	Experiential Learning theory (ELT) -----	32
<b>2.3.</b>	<b>CHAPTER I -----</b>	<b>34</b>
2.3.1.	The Experiential Learning Process -----	34
2.3.2.	Using experiential learning to reinforce the comfort zone concept -----	34
2.3.3.	Kolb’s Learning Cycle -----	36
2.3.4.	Factors in learning cycle -----	36
2.3.4.1.	Perceiving (vertical) -----	37
2.3.4.2.	Processing (horizontal) -----	37
2.3.5.	Preferences in learning style -----	37
2.3.6.	Elaborations of the Experiential Learning Cycle -----	38
2.3.6.1.	Two ways of Knowing -----	39
2.3.6.2.	Two way of understanding -----	39
2.3.7.	Forms of Knowledge and the Learning Cycle -----	41
2.3.7.1.	Convergent and Divergent Knowledge -----	42
2.3.7.2.	Assimilation and Accommodation -----	42
2.3.8.	The Kolb Model and Subject Disciplines -----	42
2.3.9.	Stages of the learning cycle -----	43
2.3.10.	What experiential learning is, and what is not -----	44
<b>2.4.</b>	<b>CHAPTER II -----</b>	<b>45</b>

2.4.1.	Teaching vocabulary -----	45
2.4.1.1.	Phrasal verbs with the verb “look” -----	47
2.4.2.	Another issue to address is the cumulative nature of the process of vocabulary learning -----	49
2.4.3.	Another important issues to consider is the many constraints of the use of the words -----	49
2.4.4.	Research questions -----	50
2.4.5.	Some issues to take into account when teaching vocabulary -----	50
2.4.6.	What knowing a word mean -----	51
<b>2.5</b>	<b>CHAPTER III -----</b>	<b>52</b>
2.5.1.	Teaching strategies for each learning style in the cycle -----	52
2.5.2.	The four stages of Experiential Learning -----	54
2.5.3.	Teaching activities -----	55
2.5.4.	Teaching strategies to teach vocabulary -----	55
2.5.4.1.	Types of activities -----	57
2.6.	Hypothesis system -----	57
2.6.2.	Null Hypothesis -----	57
2.6.3	Alternative Hypothesis -----	58
<b>PART THREE</b>	<b>-----</b>	<b>59</b>
<b>3. METHODOLOGICAL DESIGN</b>	<b>-----</b>	<b>59</b>
3.1.	Research type and design -----	59
3.1.1.	Types of research -----	59
3.1.2.	Types of experiment -----	60
3.2.	Population and sample -----	61
3.3.	Fielding -----	61
3.4.	Instruments for data collection -----	62



3.5.	Processing and analysis -----	62
<b>PART FOUR -----</b>		<b>65</b>
<b>4. TESTING THE HYPOTHESIS -----</b>		<b>65</b>
4.1.	Graphical exposition of results -----	65
4.2.	Analysis of results -----	71
4.3.	Conclusions -----	73
4.4.	Recommendations -----	73
<b>PART FIVE -----</b>		<b>75</b>
<b>5. PROPOSAL -----</b>		<b>75</b>
5.1.	Objectives -----	76
5.1.1.	General Objectives -----	76
5.1.2.	Specific Objectives -----	76
5.2.	Principles of Experiential Learning -----	76
5.3.	Kolb's Experiential Learning Model -----	77
5.4.	The learning cycle can be represented by this diagram -----	78
5.5.	What do the different forms of knowledge need to achieve the goals ? -----	79
5.6.	Time table -----	80
5.7.	An Innovative Handbook -----	81
5.8.	Stages in our learning process -----	82
	Lesson plans -----	83
<b>BIBLIOGRAPHY -----</b>		<b>84</b>
<b>ANNEXES -----</b>		<b>86</b>

## SUMMARY

After having spent for more than three years as students in the ESPE and as a requirement for our graduation in order to obtain our degree we had to carry out a thesis taking into account that a university thesis is the solution of a problem, and our problem was to find children in the Public schools in which they don't know vocabulary related to computing science, in order to give solution to this problem we have had to investigate techniques and Principles in Language Teaching, and Educational Psychology that complete our objectives, and we have chosen teaching method called **Experiential Learning** proposed by Dr. David Kolb as a strategy to carry out the aims. At the same time, we had to develop a Scientific investigation related to the computing science, once the information was in our hands the following steps were taken to make an innovative, easy, funny and pictorial handbook, without many complicated exercises, but, what it is more important, that fulfill the demands of the Kolb's cycle.

Following this, We have chosen the institution in which we should put in practices this methodology, and this will be applied at 30 selected children at seven year of basic education of J.M. Jijon Caamaño y Flores School, located in Amaguaña town, province of Pichincha, during the first term, 2007-2008 school year.

Then, with 30 students, divided into 2 groups: the first 15 students were the control group and others 15 were the experimental group, it is important to mention that the groups were not random assignment.

In our research, the experimental method was considered, because it controls the conditions under which the scores and investigation are observed.

The following step was the examination of all students, the instruments used as tool to be scored were: Diagnostic test at the beginning and Achievement test at the end of the program.

The Diagnostic test was focused on the strengths and weaknesses of each student vis-a-vis the instructional objectives according to the needs analysis, taking into account that, A Needs Analysis is always the starting point for Experiential Learning program design. Taking into account that Need Analysis refers to the activities involved in gathering information that will serve as the basis for developing a programme that will meet the learning needs of a particular group of students.

Hence, diagnostic test is aimed at fostering achievement by promoting strengths and eliminating weaknesses.

An achievement test indicates the extent to which an individual has mastered the specific skills or body of information acquired in a formal learning situation. In other words, Achievement test is administered at the end of a course or program to determine how effectively students have mastered the desired objectives.

In the teaching process, it has been enjoyable to interact with the students, at the same time; we have taken out profit of this experience which we believe it will serve us in the future as teachers.

Once we have obtained the data of pre-test and post-test, we have analyzed, tabulated by means of central tendency, mean, and standard deviation, with descriptive statistics in order to break the null hypothesis and to demonstrate a favorable incidence of the Experiential Learning in the teaching vocabulary.

As a conclusion, we can say that the Kolb's cycle is an effective learning way to learn English and Computing science at the same time, because this method is a learner centred approach which starts with the premise that people learn best from experience; it means by doing and we probed that students learned better, thus the acquired knowledge became a powerful tool for their educational needs.

We would recommend the Kolb's cycle proposed by David Kolb because is simple and easy to apply in any group of students. It encourages students to observe, analyze, think and evaluate every time the knowledge imparted. The results we got were amazing. We think, that English and Computing science hours should be increased in order to allow students take advantage of this powerful learning process.

The imparted knowledge that has personal meaning to the student is very useful on the learning process. Students were motivated because they found out that learning by this method, they acquired knowledge that has utility in their life. Moreover, we recommend that teachers speak English at all times to their students and be provided with real didactic materials in order to have a realistic environment.

## INTRODUCTION

The field of language teaching has undergone profound changes during the last years. The expanded possibilities of language teaching programs around the world has led to a need for new technology, for this reason in this time to learn how to use a computer is very important, because the technologies of information and communication have become a necessity of inevitable application.

The incorporation of new technologies and programs are part of our every day life, where the technology is everywhere joining the entire world, computers are playing an important role specially in education, for this reason is important that the student in elementary schools, know the correct use of the computer through a basic vocabulary.

Therefore, we as teachers have the necessity to teach new words related to the computing science because the students don't know how to use a computer and as we all know, nowadays all the machines and manuals are in English and it is better to teach English and computing science at the same time and students will understand that these two sciences are the keys to success in their lives.

Consequently, as a strategy to teach vocabulary related to the computing science we have proposed to use a methodology called "Experiential Learning" proposed by David Kolb, through an interesting handbook, without complicated exercise, enjoyable activities which engage the learners, to think about their capacities; opportunities and uses of their existing knowledge and skills, and as we know for a fact, good materials can stimulate the learning process.

Good material help to organize the teaching and learning process, by providing a path through the complex mass of the language to be learnt. Materials should, therefore, provide a clear and coherent unit structure which will guide both, teacher and student.

For this reason the handbook is intended to be an excellent and a practical guide for the students, who want to learn computing science and English at same time, in a simple way, with an innovative method and step by step, and when the students finish they elementary school, they will have good Computing science and English bases for high school.

## **RESEARCH THEME**

*“The incidence of the **Experiential Learning** as a strategy to teach vocabulary applied to Basic Computing Science at 7<sup>th</sup> year of basic education, J.M. Jíjon elementary school, during the first term, 2007-2008 school year”.*

## **PART ONE**

### **1. RESEARCH PROBLEM**

#### **1.1. Problem identification**

Since the first man appeared in the earth, he has always been looking for an answer, “How can I do this in order to make my life more comfortable? The man through the time has discovered or invented the most prodigious things putting them at the service of the human being.

With the invention of the Integrated circuit and the Processor has been the beginning of a new era, called: “Technological Era”.

Nowadays, where the computers and the programs are part of our everyday life is an urgency that the students in elementary schools know vocabulary, the applications, and the correct use of the computers.

Therefore, as teachers, we feel the necessity to teach vocabulary related to the computing science, because in many elementary schools, students don’t know the vocabulary related to this field, even more, they don’t know how to use computers correctly. For this reason, the computing teachers of such schools must be aware the role of the English language applied to this field, in order to foster the knowledge not only the computing science but also the English language applied to computers immerse into the educational system, consequently the students will have the opportunity to practice with physical elements into the class, knowing that English and Computing will be the key to be fully abreast of events of the new technology.

The children must know the different names of the different parts of the computers in English, because knowing English and computing at the same time, will be an enjoyable experience.

If you know how to work all the entire parts of the computer such as internal parts, its peripheral or devices, where the information is stored, what happen when the electricity suddenly is shutting off, what is meant by Random Assess Memory, and the like.

Only knowing how the computer works, you can enhance the useful life of the computer and its elements; at the same time, the students will have the opportunity to know new vocabulary, due to in many occasions the students will find the manuals, Operating Systems, and programs in English.

It is important to emphasize that, **ESP** (English for Specific Purpose), has been particularly important in the development of **EST** (English for Science and Technology), like any form of language teaching based on designing courses to meet learners' needs.

## **1.2. Problem setting**

This research will be applied to 30 students at seventh year of basic education of J.M. Jijon Caamaño y Flores school, located in Amaguaña town, province of Pichincha, during the first term, 2007-2008 school year.

### 1.3. Variable working out

Variables	Conceptual definition	Dimensions	Sub-dimensions
<b>Independent variables</b>	↓	↓	↓
The experimental learning	Experiential learning is part of Constructivism approach to education, a branch of the Educational psychology, is defined as the generation of an action theory, starting from the own experience, continually modified to improve their effectiveness.	David Kolb's cycle	<ul style="list-style-type: none"> <li>- Concrete experience</li> <li>- Reflective observation</li> <li>- Abstract conceptualization</li> <li>- Active experimentation</li> </ul>
		Lewin's cycle	<ul style="list-style-type: none"> <li>- Experience</li> <li>- Learning</li> <li>- Reflection</li> <li>- Thinking</li> </ul>

Variables	Conceptual definition	Dimensions	Sub-dimensions
<b>Dependent variables</b>	↓	↓	↓
The teaching of vocabulary	The vocabulary acquisition is the processes of language acquisition, by means of <b>The Lexical Approach</b> in which emphasize the knowing of the meaning and the use of the different language items, teaching vocabulary aims broadly to apply the theoretical perspective of the communicative approach by making communicative competence the goal of language teaching and by acknowledge the interdependence of	Syntactic Information.	<b>Conforming to rules of syntax:</b> correctly formed according to the rules or accepted structures of syntax.
		Phonological information.	<b>Sound system of language:</b> the system or pattern of speech sounds used in a particular language
		Semantic information.	<b>Relating to word meanings:</b> relating to meaning or the differences between meanings of words or symbols.



<p>language an communication or proactive to create new meanings and share our own reality unconstrained by the immediate context, principles based on a new understanding of language.</p> <p><i>“Without grammar very little can be conveyed, but without <b>vocabulary</b> nothing can be conveyed.”</i></p>	Morphological information.	<b>Study of word formation:</b> the study of the structure of words in a language
	Pronunciation.	<b>Making of sounds of speech:</b> the way in which a sound, word, or language is articulated, especially in conforming to an accepted standard.

## 1.4. Objectives

### 1.4.1. General

- To investigate the experiential learning as an approach to teach vocabulary.
- To study the different elements involved in the teaching vocabulary.
- To determine the incidence of the experiential learning in the teaching of vocabulary applied to basic computing science.

### 1.4.2. Specific

- To establish the phases of the experiential learning.
- To develop a knowledge in the process of experiential learning.
- To apply the Kolb’s cycle for teaching vocabulary to children.
- To define each item and its meaning.
- To apply the Kolb’s cycle for teaching vocabulary to children.
- To establish the new vocabulary as encyclopedic knowledge in the student’s brain.

## 1.5. Justification

As members of a society, we know how computers and Technological information have changed our lives in our personal and social activities; as teachers, we realise that school must introduce these powerful media in every day learning activities, particularly in English classes, since the Computing and English are an overall activity in everyday life.

As we know, the English language has become a global language of communication in all major fields nowadays; therefore, learning English Language and computing science will allow us to open doors to new opportunities and expand our mind to new ideas.

The incorporation of new technologies to the pedagogic work is an urgency, because in this globalized century where the technology is everywhere joining the entire world, computers are playing an important role, especially in education. Therefore we, as teachers of the present century, should be in contact of each technological improvement and apply it in the teaching/learning process every time; moreover, the students must familiarize with the terminology, so that they learn the new vocabulary used in this field. The same that will be thought with the methodology called “Experiential learning” proposed by David Kolb which is the Kolb’s cycle.

Our proposal pretends to teach and help students to use English vocabulary by encouraging them to use the new computing terminology and use it without any problem with one purpose: to inculcate confidence in themselves toward what they have learned during the “Experiential Learning” process.

This process sustains that experience is the source of learning and development. Everyone knows that experience is a normal everyday process for most people and if we apply it in students, they will learn easily through discovery and experience. What you do, you learn, and won’t be forgotten.

Thus, with the acquired knowledge, the students will move into it the next level understanding. They will be able to use a computer and call its parts with their proper names. Besides students can use English and Computing knowledge to do the best in classes by giving clear and specific answers to questions or to any problem in these two fields.

Since in our public schools, English and Computing science are not given enough interest to be taught, we believe that “Experiential Learning” will help students to learn these two fields at the same time. Students will be able to interact with other persons with different levels of skill and knowledge. The role of the teacher, if this method is applied, is to inculcate confidence in learners,

so they apply their new knowledge among themselves or help any disadvantage student. Consequently, this will raise student' self-esteem toward their own benefit to handle efficiently any educational situation.

## **PART TWO**

### **2. THEORETICAL FRAME**

#### **2.1. Theoretical and Conceptual Focus**

##### **2.1.1. Epistemological base**

“Epistemology is the branch of philosophy that studies knowledge. It attempts to answer the basic question: What distinguishes true knowledge from false knowledge? Practically, this question translates into issues of scientific methodology. How can development theories or models are better than competing theories? It also forms one of the pillars of the new sciences of cognition, which development form the information processing approach to psychology, and from artificial intelligence , as an attempt to develop computer programs that mimic a human’s capacity to use knowledge in an intelligent way.

The development of epistemology may be called pragmatic. Parts of it can be found in early twentieth century approaches, such as logical positivism, conventionalism, and the “Copenhagen interpretation” of quantum mechanics. This Philosophy still dominates most present work in cognitive science and artificial intelligence. According to pragmatic epistemology, knowledge consists of models that attempt to represent the environment in such a way as to maximally simplify problem-solving. It is assumed that no model can ever hope to capture all relevant information, and even if such a complete model would exist, it would be too complicated to use in any practical way.

The pragmatic epistemology does not give a clear answer to the question where knowledge or models come from. A more radical point of departure is offered by constructivism. It assumes that all knowledge is built up from scratch by the subject of knowledge”.<sup>1</sup>

##### **2.1.2. Sociological base**

“Sociology is an academic and applied discipline that studies society and human interaction.

Sociological research ranges from the analysis of short contacts between anonymous individuals on the street to the study of global social processes.

---

<sup>1</sup> [http://www.cogsi.uwaterloo.ca/Articles/epistemological .html](http://www.cogsi.uwaterloo.ca/Articles/epistemological.html)

The field focuses on how and why people are organized in society, either as individuals or as members of associations, groups and institutions. As an academic discipline, sociology is typically considered a social science.

One useful way to describe the discipline is as a cluster of subdisciplines sometimes called fields, which examine different dimensions of society for example.

Social stratification studies inequality and class structure; Demography studies changes in a population size or type; Criminology examines criminal behaviour and deviance; Political Sociology studies government and laws; and the Sociology of race and Sociology of gender examines the social construction of race and gender as well as race and gender inequality. New sociological fields and sub-fields such as network analysis and environmental sociology continue to evolve; many of them are cross-disciplinary in nature".<sup>2</sup>

### **2.1.3. Psychological base**

Educational psychology theory has passed through a number of changes and fashions in its comparatively brief history. In our overview of approaches to educational psychology and present major schools of thought such as:

#### **2.1.3.1. Behaviourism**

Behaviourism is a school of psychology, that has its roots within positivism, and which has had a profound influence on language teaching throughout the world.

The behavioural approach is based on the concept of explaining behaviour through observation, and the belief that our environment is what causes us to behave differently or suffer illnesses.

Behaviour can be observed in terms of responses to certain stimuli. For example, a person being asked to hold a book (stimulus) would respond by holding the book. This Stimulus-Response theory forms the basis of conditioning, which suggests learning in humans and animals can take place through the association of a response with particular stimuli.

---

<sup>2</sup> <http://www.conncoll.edu/academics/departaments/sociology/>

### 2.1.3.1.1. Educational Implications

Behaviourist techniques have long been employed in education to promote behaviour that is desirable and discourage that which is not. Among the methods derived from behaviourist theory for practical classroom application are contracts, consequences, reinforcement, extinction, and behaviour modification.

### 2.1.3.1.2. Contracts, Consequences, Reinforcement, and Punishment

Simple contracts can be effective in helping children focus on behaviour change. The relevant behaviour should be identified, and the child and counsellor should decide the terms of the contract. Behavioural contracts can be used in school as well as at home. It is helpful if teachers and parents work together with the student to ensure that the contract is being fulfilled. Two examples of behaviour contracts are listed below:

- A student is not completing homework assignments. The teacher and the student design a contract providing that the student will stay for extra help, ask parents for help, and complete assigned work on time. Teacher will be available after school, and during free periods for additional assistance.
- A student is misbehaving in class. The teacher and student devise a behavioural contract to minimize distractions. Provisions include that the student will be punctual, will sit in front of the teacher, will raise hand with questions/comments, and will not leave his seat without permission.

**Consequences** occur immediately after a behaviour. Consequences may be positive or negative, expected or unexpected, immediate or long-term, extrinsic or intrinsic, material or symbolic (a failing grade), emotional/interpersonal or even unconscious. Consequences occur after the "target" behaviour occurs, when either positive or negative reinforcement may be given.

**Positive reinforcement** is presentation of a stimulus that increases the probability of a response. This type of reinforcement occurs frequently in the classroom. Teachers may provide positive reinforcement by

- Smiling at students after a correct response.
- Commending students for their work.
- Selecting them for a special project.
- Praising students' ability to parents.

**Negative reinforcement** increases the probability of a response that removes or prevents an adverse condition. Many classroom teachers mistakenly believe that negative reinforcement is punishment administered to suppress behaviour; however, negative reinforcement increases the likelihood of a behaviour, as does positive reinforcement. *Negative* implies removing a consequence that a student finds unpleasant. Negative reinforcement might include:

- Obtaining a score of 80% or higher makes the final exam optional.
- Submitting all assignments on time results in the lowest grade being dropped.
- Perfect attendance is rewarded with a "homework pass."

**Punishment** involves presenting a strong stimulus that decreases the frequency of a particular response. Punishment is effective in quickly eliminating undesirable behaviours. Examples of punishment include:

- Students who fight are immediately referred to the principal.
- Late assignments are given a grade of "0".
- Three lateness class results in a call to the parents.
- Failure to do homework results in after-school detention (privilege of going home is removed).

Behaviourist views of learning were taken up widely by language teachers, and were a powerful influence on the development of the audio lingual approach to language teaching. Learners are given language tasks in small, sequential steps. This method is emphasizing with vocabulary acquisition through exposure to its use in situations, the Audio Lingual Method drills students in the use of grammatical sentence patterns of the target language was through conditioning to helping learners to respond correctly to stimuli through shaping and reinforcement.

The role of the teacher is to develop in learners good language habits, which is done mainly by pattern drills, memorisation of dialogues or choral repetition of structural patterns.

The role of the learners is a fairly passive one; they are merely directed to respond correctly to stimuli.

### 2.1.3.2. Cognitive Psychology

*Cognitive Psychology* is concerned with advances in the study of memory, language processing, perception, problem solving, and thinking.

*Cognitive psychology* is a theoretical perspective that focuses on the realms of human perception, thought, and memory. It portrays learners as active processors of information a metaphor borrowed from the computer world and assigns critical roles to the knowledge and perspective students bring to their learning. What learners do to enrich information, in the view of cognitive psychology, determines the level of understanding they ultimately achieve.

In a cognitive approach, the learner is seen as an active participant in the learning process, using various mental strategies in order to sort out the system of the language to be learned. Another aspect of cognitive psychology is the rich and varied literature on human intelligence, the intelligence or more helpfully intelligent behavior, and attempts to measure it by such methods as IQ testing.

There are different approaches to cognitive psychology:

The first is information processing this is concerned with the way in which people take information, process it and act upon it, and there are factors such as: **Attention, perception and memory.**

**Perception** will allow individuals to interpret information. Lastly, the overall motivation of the learner will determine how effectively the information is retained or processed.

**Attention** is one where an information processing approach has provided value insights into the working of the human mind.

**Memory** is an important component of this theory. Much of the material learned in school is dependent on rote memorization of declarative or factual knowledge. Recently attempts have been made to develop methods of teaching which are based on meaningful integration of material and



the mastery of procedural knowledge. *Thinking*, which varies from situation to situation, will greatly affect how individuals behave in a given situation.

Memories can be affected by physical health, attention, emotion, prejudice, and many other conditions.

There are three types of memory: **sensory, short-term, and long-term**

- **Sensory memory**- preserves fleeting impressions of sensory stimuli-sights, sounds, smells, and textures for only a fraction of a second.
- **Short-Term memory**- includes recollections for what we have recently perceived, such as limited information, lasts only up to twenty seconds unless special attention is paid to it or is reinstated for rehearsal. Information in short term memory is limited to seven discrete units (plus or minus 2), it suggests that as a teacher must find ways of breaking down complex materials into related chunks before consigning these to the Long-term memory.
- **Long-Term memory**-preserves information for retrieval at any time. The information may be stored for an entire life time and constitutes our knowledge about the world. Long term memory is considered to be unlimited in duration and capacity.

We are going to speak about intelligence; intelligence is the ability to understand, learn, and think things out quickly, for example people who were born more intelligent are much more likely to succeed at school or in any learning task than those who were born less intelligent. This often leads to the logically unjustifiable conclusion that anyone failing in school or having difficulty in learning must, therefore lack intelligence.

A good and helpful manner of how to measure the intelligence is to conceptualize the terms in: Intelligence A, Intelligence B, Intelligence C.

Intelligence A, represents the intelligence with which we are born for genetic reasons this will vary from individual to individual, except in the case of identical twins.

Intelligence B, refers to the intelligence we display in all aspects of our everyday lives which is continually changing and very much context- bound.

Intelligence C, represents what is measured by IQ tests. It can only be any sample of all the possible kinds of intelligence behavior that a person can demonstrate and is totally depend upon the validity of the particular IQ test employed.

One of the challenges for the language teacher is to help learners to developed the strategies needed to learn a language more effectively, a principle which is embodied in the current work on learner training in English as a foreign language (EFL)

### 2.1.3.3. Constructivism

Constructivism emphasizes the importance of the knowledge, beliefs, and skills an individual brings to the experience of learning. It recognizes the construction of new understanding as a combination of prior learning, new information, and readiness to learn.

There are two types of constructivism:

The first type of constructivism is Cognitive constructivism. It is based on the work of developmental psychologist **Jean Piaget**. Piaget's theory has two major parts: an "ages and stages", which predicts what children can and cannot understand at different ages, and a theory of development that describes how children develop cognitive abilities from infancy to adulthood, this theory is one which is "action-based" more concern with the process of learning that what is learned.

The learners passing through a series of stages, the first for the Young infant will be the basic senses or sensory motor stage of learning, gradually through the development of organized actions and thoughts.

The next stage is the intuitive or pre-operational stage, which is usually considered to last between the ages of two and seven, in this stage the child's thoughts become more flexible and when the memory and imagination begin to play a part, the term operation to refers to internalized actions, the way in which actions become part of children's imaginations.

The following stage is the **Concrete operational**, it is after about the age of seven, when the realization begins to dawn that the operations can be reversed. This enables children to go beyond the information given, but is still dependent upon concrete (rather than abstract)

For this reason, we think that is the best age for teaching vocabulary about the computing science in children in the elementary school.

Here, it is important emphasize that “When teaching young learners, we should not expect them to have reached the stage of abstract reasoning, and, therefore, should not expect them to apply this to sorting out the rules of the language”.

Finally, formal operational thinking when abstract reasoning; becomes increasingly possible. Piaget considered this shouldn't happen before the adolescent years.

The theory of development is the major foundation of cognitive constructivist approaches to teaching and learning. Piaget's theory of cognitive development suggests that humans cannot be “given” information which they automatically understand and use, they must “construct” their own knowledge. They have to build their knowledge through experience. Experiences allow them to create mental images in their head.

The cognitive development is essentially a process of maturation within which genetics and experience interact. The developing mind is viewed as constantly seeking equilibration between what is known and what is currently being experienced. This is accomplished by the complementary process of assimilation and accommodation through which awareness of the outside world is internalized. Although one may predominate at any one moment, they are inseparable and exist in a dialectical relationship. The terms are also used to describe forms of knowledge in Kolb's elaboration of the cycle of experiential learning.

**\*Assimilation.**- is the process by incoming information is changed or modified in our minds so that we can fit it in with what we already know.

**\*Accommodation.**- the internal world has to accommodate itself to the evidence with which it is confronted and thus adapt to it, which can be more difficult and painful process. In other words, is the process by which we modify what we already know to take into account new information.

There are three different modes of thinking, the enactive, the iconic and the symbolic.

The inactive level, learning takes place by means of direct manipulation of objects and materials, and teacher can use of drama, play, total physical response, teacher who use TPR believe in the importance of having their students enjoy their experience in learning to communicate in a foreign language, and it was developed in order to reduce the stress people feel when studying foreign languages an encourage students to persist in their study, and the handling of real objects.

The iconic level, objects are represented by visual images one step remove from the real thing, in this mode would be brought into play through the use of pictures, or words in colour.

The symbolic level, symbols can be manipulated in place of objects or mental images, they use the target language, including the paralanguage, to express ideas in context.

The second type of constructivism is Social constructivism. It is a theory, it is about how children learn, the teacher plays a very important role in learning. There is much more room for an active, involved teacher. Social constructivism argues that students can, with help from adults or children who are more advanced, grasp concepts and ideas that they cannot understand on their own.

The role of the teacher and the classroom environment are important parts of Piaget's theory. The role of the teacher is to provide a classroom full of interesting things to encourage the child to construct their own knowledge and to have the ability to explore. The classroom must give the students the opportunity to construct knowledge through their own experiences.

A constructivist teacher sets up problems and monitors students exploration, guides the direction of student inquiry and promotes new patterns of thinking. It is up to the teacher to facilitate the constructivist learning process. The structure of the learning environment should promote opportunities and events that encourage and support the process of understanding.

The students have to make their own meanings and decisions. They are not to be handed to them by the teacher. To facilitate real learning, teachers need to organize their classroom and their curriculum so that students can collaborate, interact, and raise questions of both classmates and the teacher.

#### **2.1.3.4. Humanistic**

Humanistic psychology is a psychological perspective that emphasizes the study of the whole person. The Humanistic psychologist focus on the structure and organization of what a person knows and how his thoughts, beliefs, expectations and interpretations affect behaviour. These are aspects of the learning process that are often neglected, yet they are vitally important if we are to understand human learning in its totality.

The human Psychological development depends on the way in which individuals pass through predetermined maturation stages about eight stages from birth to old age in which each one have a particular kind of challenge or crisis, if this challenge was good with help of other people in their lives, then the individuals can move to another stage for example :

- Early infancy, the basic trust established by parents or others caretakers
- The age of two or three the challenge become one of establishing autonomy as opposed to shame or doubt.
- By the age of four years, they can begin to formulate a plan of action and carry it through parental encouragement of this will foster a sense of initiative, but punishment for exploratory activities that generate feelings of guilt , which will inhibit future initiative.
- The Latency age, in which the child will establish a sense of industry as basic educational skills and learning competence are developed, or a sense of inferiority if learning experiences are beset with failure.
- \*Competitive situations in which children are constantly being compared with others and generate feelings of inferiority.
- Adolescence is a period within which the search for identity provides the key challenge. If this sense of personal identity is not established, so the outcome may be role confusion, aimlessness and antisocial behaviour.
- Young adult, who has developed a strong sense of personal identity which is based upon feelings of trust in others as well as personal autonomy, initiative, and industry should be in a good position to establish intimate relationship. While a person who is still struggling with feelings of inadequate related to unresolved crises from one of the previous life stages is far in establishing relationships.
- Old age, the last psychological stage, resolves around the conflict between integrity and despair. But if the previous stage was built in a foundation for subsequent stage, so old people should be able to look back on a life of self fulfillment and personal accomplishment and look forward to the inevitability of death without fear.

In addition, education as viewed as involved the whole person, the emotions and feelings; it does not involve merely transmitting pieces of knowledge.

The human behaviour has basic needs which are deficiency needs, and being needs and these are driven through the Hierarchy of needs.

Deficiency needs are directly related to a person's psychological or biological balance, and include such physiological requirements as food, water, sleep and the absence of the pain; they also include the needs for security, belonging and self-esteem.

Being needs these are related to the fulfillment of individual potential, in terms of cognitive and aesthetic development and the attainment of self –actualisation.

Humanistic psychology concentrates around the holistic development of a person. There are three key components of reaching the highest level of self-understanding and development:

- Self-actualization
- Self-fulfilment
- Self-realization

Humanistic psychologists believe the concept of the "self" held by an individual influences their behaviour and is related to their emotional state, well-being and judgment.

Humanistic approaches have had a considerable influence on English Language teaching methodology, these methodologies have arisen from taking a humanistic approach, the main are: Silent Way, Suggestopaedia, and Community Language Learning.

These methodologies have a number of things in common:

- First they are based more on psychology than on linguistics.
- Second, they all consider affective aspects of learning and language as important.
- Third, they are all concerned with treating the learner as a whole person in the learning process.
- Fourth, they see the importance of a learning environment which minimises anxiety and enhances personal security.

Shortly we will know about these methodologies:

The Silent way was developed with deductive (learners are given the rule and asked to apply it) and inductive (learners discover the rules for the examples and then practice it). Students should be able

to use the language for self-expression to express their thought, perceptions, and feelings. In order to do this they need to develop independence from the teacher, to develop their own inner criteria for correctness.

Suggestopaedia method, the application of the study of suggestion to pedagogy, has been developed to help students eliminate the feeling that they cannot be successful or the negative association they may have toward studying and, thus, to help them overcome the barriers to learn and the learning is facilitated in a cheerful environment.

The community language learning method wants their students to learn how to use the target language communicatively.

In addition, they want their students to learn about their own learning to take increasing responsibility for it, and to learn how to learn from one another. All of these objectives can be accomplished in a nondefensive manner if a teacher and learner treat each other as whole persons, valuing both thoughts and feelings.

The role of the teacher is important to empathise with their learners by getting to know them as individuals and seeking to understand the ways in which they make sense of the world, rather than always seeking to impose their own viewpoints.

The role of the students in this humanistic approach will be:

- Be self-directed and independent.
- Take responsibility for their learning.
- Be creative and interested in the arts.
- Be curious about the world around them.

#### **2.1.3.5. Social interactionism**

The application of social integrationists views to language teaching is from the time of their birth children learn independently by exploring their environment, and with the behaviourist view that adults are entirely responsible for shaping children's learning; by the judicious use of rewards and

punishments. . For social interactionist, children are born into a social world, and learning occurs through interaction with other people and we can begin to see in social interactionism a much-needed theoretical underpinning a communicative approach to language teaching and its aim is to apply the theoretical perspective of the communicative approach by making communicative competence the goal of language teaching and by acknowledging the interdependence of language and communication.

The importance of language in interacting with people; this approach was essentially **holistic** and the view that what is to be learned cannot be broken down into small subcomponents and taught as discrete items and skills, as a Cognitive Psychology argues.

Another important point here is the meaning should constitute the central aspects of any unit of study.

Psychologist of the social interactionist school to refer to the part played by other significant people in the learner's lives, who enhance their learning by selecting and shaping the learning experiences presented to them, the secret of effective learning lies in the nature of social interaction between two or more people with different levels of skill and knowledge.

The role of the teacher is to find ways to helping the student to learn. Particularly, this involves helping learners to move into and through the next layer of knowledge or understanding.

## **2.2. Experiential Learning theory (ELT)**

"Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand".<sup>3</sup>

### **David Kolb**

In 1984, David A. Kolb, published a ground breaking book entitled *Experiential Learning: experience as the source of learning and development*. This book essentially exposed the principle that a person would learn through discovery and experience. The reason the theory is called "experiential" is its intellectual origins are taken from the experiential work of Lewin, **Piaget**, Dewey, Freire and James,

---

<sup>3</sup> Dr. KOLB David, "Experience as the source of Learning and Development"



forming a unique perspective on learning and development, the Kolb's book had a dramatic impact on the design and development of lifelong learning models.

Experiential Learning Theory (ELT) provides a holistic model of the learning process and is a multi-linear model of children development, both of which are consistent with what we know about how we naturally learn, grow, and develop. The theory is called "Experiential Learning" to emphasize the central role that experience plays in the learning process.

It is based on psychological approaches such as: *Behaviorism, Cognitive Psychology, "Constructivism"*<sup>4</sup>, *Humanistic, and Social Interactionism.*

'Experiential learning cycle' can apply to *any* kind of learning through experience. 'Experiential learning' is often used by providers of training or education to refer to a structured learning sequence which is guided by a cyclical model of experiential learning. such as 'learning from experience' or 'learning through experience'.

An 'experiential learning cycle' is a means of representing sequences in experiential learning. It is often assumed that the stages of a 'learning cycle' are managed by a facilitator, but they can also be self-managed or even 'unmanaged' in the sense that learning from experience is a normal everyday process for most people.

---

<sup>4</sup> It is part of the Educational Psychology in which people construct their own personal understanding, from their own experiences.

## 2.3. CHAPTER ONE:

### 2.3.1. The Experiential Learning process

Experiential learning is part of Constructivism approach to education, a branch of the Educational psychology, is defined as the generation of an action theory, starting from the own experience, continually modified to improve their effectiveness, in other words, Experiential Learning has its roots in education mainly in Constructivism approach, in which the people construct their own personal understanding, from their own experiences, then what makes experiential learning so special?, simply that the approach to experiential learning utilises participants own experience and their own reflection about that experience, rather than lectures and theories as the means of generating understanding and transferring skills and knowledge. So what is experiential learning? You could say that experiential learning is a learner centred approach which starts with the premise that people learn best from experience.

In this way experiential learning is a process that cultivates learning self-sufficiency, continuous improvement is said to be a journey without an end, this equally applies to Experiential Learning.

There is always something new, a different way of doing things but the experiential learning cycle can be applied over and over regardless of what change needs to be incorporated into personal or social life.

### 2.3.2. “Using experiential learning to reinforce the comfort zone concept

Every person has comfort zones within which they operate yet **experiential learning** often takes place outside of this zone. Whilst one could say that the key to personal growth and increasing success in nearly every endeavour is the willingness to step outside of one's comfort zone the way that experiential learning delivers freedom of choice and risks means that learners remain in control of the learning process.

Why? because if experiential learning placed people in situations of great discomfort then learners would be pre-occupied with comfort reinstatement rather than **experiential learning** . The thing therefore about experiential learning is that whilst stretched and challenged experiential learning

will not place learners in a position of great discomfort. Consequently everyone enjoys the feeling that experiential learning generates for they know that their experimentations resulted in success.

The experiential learning design is based on the findings of the needs analysis. An experiential learning programme can include any combination of planning meetings, workshops, assignments and progress reviews. For clarity we shall use the term 'modules' to refer to a meeting or workshop or assignment or review. Modules can be interwoven or stand alone and are designed to be sequential to build on and anchor experiential learning generated. The experiential learning design uses innovative approaches, to achieve the individual's, team's and organisational goals.

The design of experiential learning modules ensures that they offer challenges of a mental, emotional, intellectual and physical nature to the group - it is therefore an holistic approach. Just like life! In order to achieve positive outcomes, the group must work together to plan, participate, problem solve, make decisions and consider the role of leadership when appropriate. Therefore team building is a key component. Other components of an experiential learning module explore feelings, trust, feedback, listening, effective questioning, communication between generations and levels of management, risk taking, reflection and review.

Subsequent experiential learning modules are designed after the learning from previous modules. Individuals and the group have time to work on action plans and implement those plans between experiential learning modules. Each experiential learning module begins with an evaluation of action plans before moving forward in the experiential learning cycle.

'Experiential learning' sounds as if it will be more satisfying, more personalised, more memorable, more significant, more real, more risky and perhaps even more fun".<sup>5</sup>

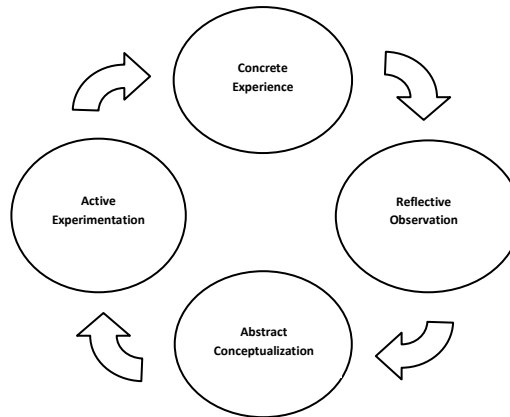
---

<sup>5</sup> <http://www.learningandteaching.info/learning/experience.htm#ConfortZone>

### 2.3.3. "Kolb's Learning Cycle"<sup>6</sup>

The learning cycle showed below, has been adopted and adapted to all kinds of learning situations.

This Kolb's cycle is adapted to all kinds of learning situations has four stages or components, they are Concrete experience is opposed to Abstract Conceptualization; Reflective Observation is opposed to Active Experimentation.



It begins with **Concrete Experience** is followed by **Reflective Observation**, it's in turn is followed by **Abstract Conceptualization** and this is followed by **Active Experimentation** and ends with **Concrete Experience**. All this may happen in a flash, or over days, weeks or months, depending on the topic, and there may be a "wheels within wheels" process at the same time.

### 2.3.4. Factors in learning cycle

David Kolb's Experiential Learning: Experience as the source of learning and development (1984) theorized that four combinations of **perceiving** and **processing** determine four learning styles that make up a learning cycle. According to Kolb, the learning cycle involves four process that must be present for learning to occur:

---

<sup>6</sup> <http://www.learningfromexperience.com/>

#### 2.3.4.1. Perceiving (vertical)

Concrete Experience & Abstract Conceptualization, it is the process in which we absorb the information in the world around us.

#### 2.3.4.2. Processing (horizontal)

Reflective Observation & Active Experimentation, it is the process in which we understand the information from our world.

Knowing that each individual has different learning style or preferences to learn these four stages will be considered as show below:

#### 2.3.5. Preferences in learning style

- **Concrete Experience** (*Sensing/feeling people*) or CE relates to your strength of preference for learning things that have personal meaning in your life today. That is, you like to learn things that are useful in your current situation. If you have a high number for CE, it is really important that the teacher helps you answer the question, "Why do I need to know this?" We all use Concrete Experience.
- **Reflective Observation** (*Watching people*) or RO relates to your strength of preference for wanting some time to reflect and think about the things you are learning. It may be important to watch others learn while you are learning. If you have a high number for RO, you may want plenty of time to plan things out and to make sure that you have it correct. We all use Reflective Observation.
- **Abstract Conceptualization** (*Thinking people*) or AC relates to your strength of preference for learning lots of facts and figures. You like to learn lots of new concepts and information on any topic. If you have a high number for AC, you probably enjoy the traditional classroom environment where the teacher delivers the information and you complete the homework. We all use AC.

- **Active Experimentation** (*Doing people*) or AE relates to your strength of preference for applying and practicing with what you have learned. You enjoy hands-on activities and field trips. If you have a high number for AE, you probably really enjoy conducting experiments to see what will happen and know that trial and error is part of the learning process. We all use AE.

Dr. David Kolb in his book titled Experience as a source of Learning and Development, He claims that each stage belong to each different learning styles or preferences to learn.

- **Activist- Active Experimentation** (simulations, case study, homework)
- **Reflector- Reflective Observation** (logs, journal, brainstorming)
- **Theorist- Abstract Conceptualization** (lectures, papers, analogies)
- **Pragmatist- Concrete Experience** (laboratories, field work, observations)

Educational research shows that people have different learning styles or preferences, and that children learn most effectively when the learning has an experiential component. In other words, they learn by doing. Active learning enables students to construct meaning and deep understanding rather than simply recording knowledge.

The more learners use the experiential learning cycle the more they will realise continuous improvement.

### 2.3.6. “Elaborations of the Experiential Learning Cycle”<sup>7</sup>

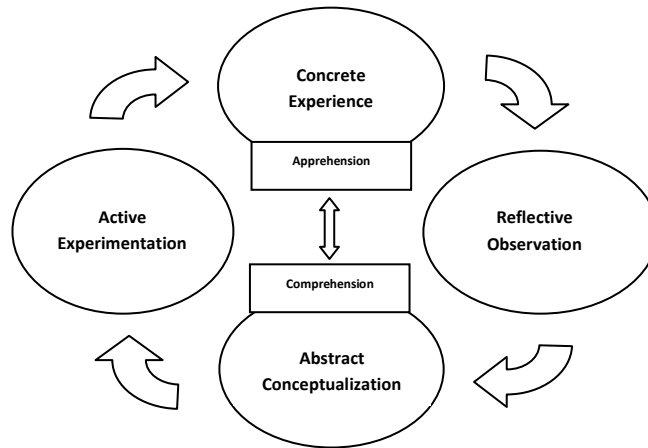
Not all forms of skill and knowledge emphasise all the stages of the Cycle to the same extent, and Kolb has carried the argument further by relating **knowing** and **understanding** to the cycle in the following ways:

---

<sup>7</sup> <http://www.learningandteaching.info/learning/experience.htm#Elaborations>

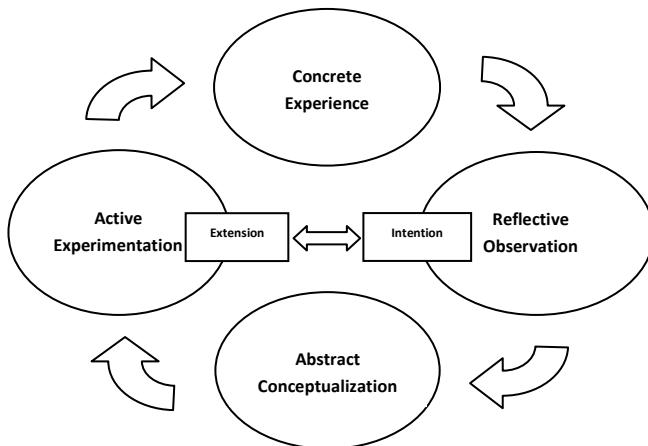
### 2.3.6.1. Two ways of knowing

- **Concrete Experience** corresponds to "Apprehension" or "knowledge by acquaintance", it means direct practical experience.
- **Abstract Conceptualisation** corresponds to "Comprehension" or "knowledge about" something, which is theoretical, but perhaps more comprehensive.



### 2.3.6.2. Two ways of understanding

- **Reflective Observation** corresponds to "Intention" or "Connotation" concentrates on what the experience means to the experience.
- **Active Experimentation** corresponds to "Denotation" or "Extension" transforms the theory of Abstract Conceptualisation by testing it in practice.



This distinction to “knowledge by acquaintance” was first made by Aristotle, and has been discussed by epistemologists ever since.

One of the basic questions of epistemology concerns the nature of knowledge. Philosophers normally interpret this query as a conceptual question, i.e., as an issue about a certain conception or idea or notion called knowledge. The question raises a perplexing methodological issue, namely, how does one go about investigating such conceptual questions? It is frequently assumed, though the matter is controversial, that one can determine what knowledge is if one can understand what the word “knowledge” means, that is, what notion or concept the word “knowledge” expresses or embodies.

Philosophers who proceed in this way draw a distinction between a word and its meaning, and a meaning is generally considered to be the concept which that particular word has or expresses. It is usually further assumed that though concepts are not identical with words, that is, with linguistic expressions, language is the medium in which the meaning of such concepts is displayed or expressed.

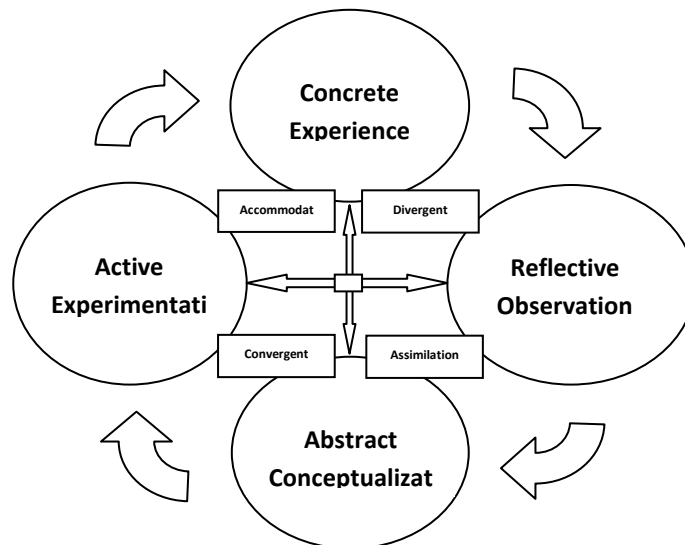
The investigation into the nature of knowledge often begins in a similar fashion with the study of the use of the word “knowledge” and of certain cognate expressions and phrases found in everyday language. A survey of such locutions reveals important differences in their uses: one finds such expressions as “know him,” “know that,” “know how,” “know where,” “know why,” or “know whether.” These differences have been explored in detail, especially in the 20th century. The expression “know x,” where “x” can be replaced by a proper name, as in “I know Jones” or “He knows Rome,” has been taken by some philosophers, notably Bertrand Russell (1872–1970), to be a case of **knowledge by acquaintance**. Russell thought its characteristic use was to express the kind of knowledge one has when one has first-hand familiarity with a certain object, person, or place. Thus, one could not properly say in the 20th century, “I know Julius Caesar,” since this would imply that one had met or was directly acquainted with a person who had died some 2,000 years ago. This sense or use of “know” becomes important in the theory of perception and in sense-data theory, since some philosophers, such as Russell and G.E. Moore (1873–1958), have held that one's awareness of a sense-datum (a notion to be discussed later) is a case of direct acquaintance, whereas one's acquaintance with a physical object, such as a human hand, is not.



The phrases “know that” and “know how” have also played fundamental roles in the theory of knowledge. The British philosopher Gilbert Ryle (1900–76), for instance, argued that “know how” is normally used to refer to a kind of skill that a person has, such as knowing how to swim. One could have such knowledge without being able to explain to another what it is that one knows in such a case, that is, without being able to convey to another the knowledge required for that person to develop the same skill. “Know that,” in contrast, does not seem to denote the possession of a skill or aptitude but rather the possession of specific pieces of information, and the person who has knowledge of this sort can generally convey it to others. To know that the Concordat of Worms was signed in the year 1122 would be an example of this sort of knowledge. Ryle has argued that, given these differences, some cases of knowing how cannot be reduced to cases of knowing that and, accordingly, that the kinds of knowledge expressed by these phrases are independent of one another.

### 2.3.7. “Forms of Knowledge and the Learning Cycle”<sup>8</sup>

The four quadrants of the cycle are associated with four different forms of knowledge, in Kolb's view. Each of these forms is paired with its diagonal opposite.



<sup>8</sup> <http://www.learningandteaching.info/learning/experience.htm#Elaborations>

### 2.3.7.1. Convergent and Divergent Knowledge

- **Convergent** knowledge brings to bear a number of facts or principles on a single topic: problems have "right" and "wrong" answers. It is located in the quadrant between *Abstract Conceptualisation* and *Active Experimentation*.
- **Divergent** knowledge on the other hand, is (very broadly) more about creativity — it is about the generation of a number of accounts of experience. It is generated between *Concrete Experience* and *Reflective Observation*.

### 2.3.7.2. Assimilation and Accommodation

Was proposed by **Piaget**, in which Assimilation and Accommodation are in his view two dialectically related processes (*i.e.* opposing principles — *thesis* and *antithesis* — between which a compromise — *synthesis* — has to be negotiated) which describe (roughly) different relationship between knowledge of the outside world and knowledge already held in our heads.

Kolb's approach to integrating these Piagetian ideas with the cycle is generally less successful than his application of Hudson. The search for new rules (Abstract Conceptualisation) to formalise observations (Reflective Observation) may well be an accommodative exercise, and very often trial and error learning (Active Experimentation) consists of moving from one known rule to another in the hope that one of them fits, so it has an important element of assimilation in it. Nevertheless, the approach does help to focus attention on the relationship between the general and the particular.

- Assimilation includes fitting particular instances into general categories.
- Accommodation is about working from the general principle to the particular application.

### 2.3.8. "The Kolb Model and Subject Disciplines"<sup>9</sup>

---

<sup>9</sup> <http://www.learningandteaching.info/learning/experience.htm#SubjectDisciplines>

Kolb's *learning Styles Inventory* to relate different subject disciplines to the quadrants of the learning cycle and hence to different forms of knowledge.

- Creative disciplines, such as the arts, are found in the *Divergent* quadrant.
- Pure scientists and mathematicians are in the *Assimilative* quadrant.
- Applied scientists and lawyers are in the *Convergent* quadrant.
- Professionals who have to operate more intuitively, such as teachers, are in the *Accommodative* quadrant.
- There are also differences in the location of specialists within the more general disciplines.

This would suggest that different subject areas call for different learning styles, and raises the usual chicken and egg question as to whether the discipline promotes a particular learning style, or whether preferred learning style leads to adoption of a discipline, or of course, both.

Learning cycle is important. It gives meaning, relevance, and usefulness to learning. When students learn material that is meaningful, relevant, and useful, change occurs in the classroom. Teaching becomes more enjoyable when students are interested. And students work more diligently when they are learning content that is interesting.

One of the best ways to create a context for learning is by providing instruction through the "learning cycle." This learning cycle occurs in four stages.

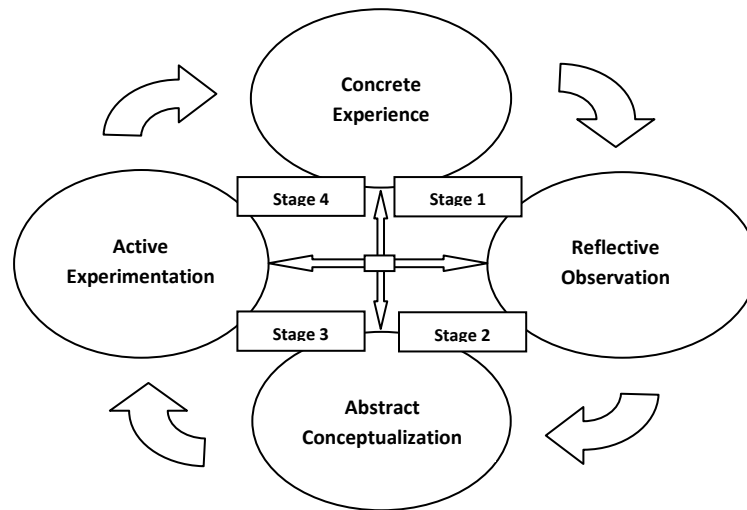
### **2.3.9. Stages of the learning cycle**

STAGE 1: In the first stage, instruction begins as a connection or hook, a reason why it is important to learn this lesson. Teachers can help set the stage for learning by helping students see how what they will be learning already plays a role in their lives.

STAGE 2: This is the stage where specific, relevant, and critical content is delivered. This is the traditional method of instruction. Lecturing and professing is common and important. This is where the teacher draws upon his or her expertise in the subject matter.

STAGE 3: Students must become active. Students can be given the opportunity to take the knowledge gained in Stage 2 and apply it to a real world situation. They must experiment, build, create, change, and add something of themselves through a project.

STAGE 4: In the final stage, this is the integration time. For students, this is the time for them to take all they have accomplished so far and make deeper connections to other areas of their lives. Students should be able to integrate what they have learned into any other context or situation in life. Students can be expected to teach this content to another person.



Learning styles has its roots in the field of education. However, how you learn new things is the same whether you're in the classroom, workroom, or boardroom. Understanding how people naturally learn, provides you with an opportunity to nurture their growth and help them create a solid foundation for the future.

### **2.3.10. What experiential learning is, and what it is not**

1. Experience is used to test out ideas and assumptions rather than to passively obtain practice. It is active exploration.
2. Experiential learning is not the same as discovery learning. Activities must be carefully designed by teachers, and learners must reflect on their experience in a critical way.

## 2.4. CHAPTER TWO:

### 2.4.1. Teaching vocabulary

The process of teaching vocabulary is a complex one, which is achieved by means of **Lexical approach** in some cases, so that the students acquire the vocabulary is important consider the following themes: This present study about the developing vocabulary in children from ten to eleven years is based on the believed that as a minimum we need to distinguish the lexicon, because the lexicon represents our knowledge of the vocabulary of our language such as: syntactic, semantic phonological, and morphological information, the lexicon also serves as a means of access to our non-linguistic knowledge, containing information of a encyclopedic kind

Lexicon means the vocabulary of a language or of an individual

Example:

Keyboard: is a noun (**syntactic** information)

Keyboard: is stressed in the firs syllable (**phonological** information)

Keyboard: is part of a computer (**semantic** information)

Key board: is composed of two sub-parts (**morphological** information)

Dictionaries list words and in one way or another state their meanings. It is regarded as a sensible question to ask of any word in a language, "What does it mean?" This question, like many others about language, is easier to ask than to answer.

It is through lexical resources that languages maintain the flexibility their open-ended commitments demand. Every language has a vocabulary of many thousands of words, though not all are in active use, and some are known only to relatively few speakers. Perhaps the commonest delusion in considering vocabularies is the assumption that the words of different languages, or at least their nouns, verbs, and adjectives, label the same inventory of things, processes, and qualities in the world but unfortunately label them with different labels from language to language. If this were so, translation would be easier than it is; but the fact that translation, though often difficult, is possible indicates that people are talking about similar worlds of experience in their various languages.

Change is a distinctive characteristic of the world of foreign or second language teaching and learning. Teaching practices have evolved as linguists have begun to understand the complex processes of language acquisition. Techniques have improved as teachers have gained insight into what kinds of courses and lessons might both accelerate language acquisition and make these courses and lessons more enjoyable. Above all, striking changes have taken place in the language classroom, as learners have felt empowered to take control of their own learning. One of the most influential changes of the last decade of the twentieth century was the shift of focus, proposed by many theorists and practitioners, from grammar as the central anchor of language teaching to the lexicon. David Wilkins aptly sums up this change as follows: “*Without grammar very little can be conveyed, but without **vocabulary** nothing can be conveyed*”.<sup>10</sup>

After the publication of **The Lexical Approach** by Michael Lewis in 1993, there was an evident revival of interest in vocabulary acquisition. What this author suggests in his book is definitely compatible with the claims of the communicative approaches; however, in Lewis’ proposal there seems to be a greater emphasis on the meaning and use of the different language items. He argues that “the Lexical Approach is not a new all-embracing method, but a set of principles based on a new understanding of language.” Since Lewis’ claims make so much intuitive sense, the main goal of the present study is to investigate whether the kinds of activities and strategies proposed by Lewis and others like Nation, and Thornbury facilitate vocabulary acquisition and whether explicit teaching and incidental acquisition of vocabulary make EFL reading more effective.

Most people think of vocabulary as lists of words. However, besides single words, vocabularies include numerous multi-word items. The review of the literature reveals that we do not have a universal definition of the term vocabulary. For instance, Folse discusses set phrases, variable phrases, phrasal verbs and idioms. Thornbury mentions the term “lexeme” which he defines as “a word or group of words that function as a single meaning unit.” Additionally, he talks about lexical chunks, which vary in the degree in which they can be fixed or idiomatic, sentence frames, and phrasal verbs. Despite the differences in terminology, it is obvious that the above-mentioned classifications highlight the fact that words require their neighboring words to express meaning.

Learners need to keep in mind that these multi-word units are necessary if natural communication is to happen. For example, in order to acquire phrasal verbs, students need to understand their **form**,

---

<sup>10</sup> D.A. Wilkins, *Linguistics in Language Teaching*

their **meaning** and their **use**. Larsen-Freeman mentions that knowing the form of a phrasal verb includes knowing whether it is followed by a particle or by a preposition, whether it is transitive or intransitive, whether it is separable or not, and what stress and juncture patterns are used. Knowing the meaning encompasses literal, figurative and multiple meanings. Finally, knowing the use covers understanding the fact that phrasal verbs are part of informal discourse and that they operate by the principle of dominance. For example, if learners encounter the verb “look” in a reading passage and have trouble understanding what it means, their chances of guessing the meaning from context are minimized if they ignore the particle or preposition that follows it. If then they decide to look it up in a dictionary, they will not necessarily find the definition that fits the context since “look” is a good example of what is called a de-lexicalized verb. Its meaning changes depending on the particle or preposition that follows it.

Below illustrates the complexity of the problem. It presents only the most frequent of the possible phrasal verbs starting with the verb “look” has different meanings.

#### **2.4.1.1. Phrasal verbs with the verb “look”**

look about/around Examine

look after/ Be responsible for

look ahead /Think about events in the future

look back/ Return in one’s thoughts

look for/ Try to find

look on/ To be a spectator

look out/ Take care, beware

look up/ Try to find, especially in a work of reference

look up/ to Regard with respect

Knowing a word also implies knowing its collocations, that is, the words with which it is most likely to occur in speech or in writing. In other words, the term collocation refers to the combinations of

words that are natural and normal to native speakers. Knowledge of typical collocations gives learners power. Not only will they avoid making mistakes, but they will also sound more native-like because fluent and appropriate language use requires collocational knowledge. The following table summarizes the most frequent collocates of the noun “problem” provided by Benson, Benson & Ilson (1997) in their dictionary.

Part of the information that a dictionary should give concerns the restrictions and constraints on the use of words, commonly called usage labelling. There is great variation in language use in many dimensions—temporal, geographical, and cultural. The people who make a two-part division into “correct” and “incorrect” show that they do not understand how language works. The valuation does not lie in the word itself but in the appropriateness of the context. Therefore, it is preferable to be sparing in the use of labels and to allow the tone to become apparent from the illustrative examples.

An important distinction was put forward by an American philologist, John S. Kenyon, when he discriminated between “cultural levels,” which refer to the degree of education and cultivation of a person, and “functional varieties,” which refer to the styles of speech suitable to particular situations. Thus a cultivated person rightly uses informal or colloquial language when at ease with friends.

A lexicographer is faced with the difficult task of selecting a suitable set of labels. In the temporal categories, labels such as obsolete, obsolescent, archaic, and old-fashioned are dangerous, because some speakers have long memories and might use old words very naturally. The national labels are problematical, because words move easily from one branch of the language to another.

The word “blizzard,” for instance, is no doubt an Americanism in origin, but, since the 1880s, it has been so well known over the English-speaking world that a national label would be misleading. The label “dialect” or “regional,” either for England or America, offers many problems, for alleged “boundaries” are permeable. The label “colloquial” was much misunderstood, and now “informal” is often used in its place. There may be a “poetic vocabulary” that needs labelling, and few people will agree on any definition of “slang”.<sup>11</sup>

---

<sup>11</sup> Informal language not used in formal speech or writing and often restricted to a particular social group or profession



#### **2.4.2. Another issue to address is the cumulative nature of the process of vocabulary learning**

Vocabulary experts claim that learners need multiple encounters with a new word in order to truly understand it and learn it. Furthermore, it is important to consider what information is required to have native-like mastery of a word.

Knowing a word involves a wide range of understandings and skills related not only to the **form** but also to the **meaning** and use of that particular word. Therefore, all possible aspects cannot be acquired at once. Learners tend to acquire prototypical meanings and uses first and, as they advance, they begin understanding others that are more marked, provided they get enough exposure or comprehensible input. For instance, it is not realistic to expect learners to acquire all the possible collocates for the noun “problem”. What teachers can reasonably expect is for learners to acquire the prototypical verbs and adjectives that co-occur with it, and perhaps, be able to recognize the rest.

Lewis proposes that, in the initial stages of language acquisition, the role of sentence grammar should be decreased, favoring instead an increase in the role of what he calls “word grammar,” that is, the patterns in which any given word may occur. This includes close attention to issues such as collocations mentioned above and cognates, that is, words that have similar forms in two languages.

Knowing whether an English verb is followed by an infinitive or by a gerund or whether a phrasal verb is separable or not. Consequently, mastering words implies coping with the combination of words into phrases, sentences, and texts, namely, being aware of the fact that in English, as in any other language, there are many fixed, identifiable, constructions. Lewis also favors the emphasis of text grammar, that is, those features of the language that apply beyond the mere sentence level such as supra-sentential linking. Many other authors have discussed the importance of context. They claim that speakers cannot assign any meaning to words in isolation. Meaning emerges from the connection between words in a context. Mear points out that “*context can radically change the meaning of words, making familiar words opaque, and unfamiliar words completely transparent.*”

#### **2.4.3. Another important issue to consider is the many constraints on the use of words**

Language acquisition includes knowing when to use a lexical item, when learners pick up many words or fixed expressions from movies, cable television, or popular teen magazines. Many informal expressions and others whose uses are highly restricted to very intimate situations or only appropriate when talking with close friends of a similar age group are used by learners in class discussions or in assignments. From the context in which they occur, it is obvious that the learners know their meaning. What they do not know is that, even though those lexical items are high frequency words in many movies or sitcoms, they are definitely not appropriate in many situations. A case in point is the use of swear words to either emphasize what one means or to insult someone or something. Another constraint is frequency. For instance, learners need to be made aware of the fact that they might find cognates in the L2 whose frequency of occurrence is very different from the frequency of the equivalent word in their L1. To cite an example, although the English verbs “explain” and “explicate” are synonyms, they definitely vary in relation to frequency and level of formality. The fact that “explicate” is closer to the Spanish verb “explicar” might lead learners to choose the wrong verb. Nation believes that most constraints on use are best dealt with by discussion and explicit cross-cultural comparison. The frequency constraint is best dealt with by familiarity with the language, although in the early stages of learning, direct information about whether a word is commonly used or not is useful.

#### **2.4.4. Research questions**

The following research questions guided the present study:

- Is there significant vocabulary development if vocabulary is explicitly and systematically taught in a reading course?
- Is there improvement in the learners’ attitude towards reading if they are taught vocabulary explicitly and are provided with strategies to read faster and more fluently and understand better?

#### **2.4.5. Some issues to take into account when teaching vocabulary**

Learning a word in isolation does not enable us to use it adequately, as words might need other particular words to accompany them, learning the written form of the word does not that we can

pronounce it properly. Unless grammatical patterns in which to use the words have been mastered we will not be able to use it accurately.

#### 2.4.6. “What knowing a word means”<sup>12</sup>

In the following chart is explained what knowing a word means, both for receptive (R) and productive (P) knowledge.

		Receptive (R)	Productive (P)
Form	Spoken form	What does the word sound like?	How is the word pronounced?
	Written form	What does the word look like?	How is the word written and spelled?
Position	Grammatical patterns	In which patterns does the word occur?	In which patterns must we use the word?
	Collocations	What words or types of words can be expected before or after the word?	What words or types of words must we use with this words
Function	Frequency	How common is the word?	How often should the word be used?
	Appropriateness	Where would we expect to meet this word?	Where can this word be used?
Meaning	Concepts	What does the word mean?	What word should be used to express this meaning?
	Associations	What other words does this word make us think of?	What other words could we use instead of this one?

<sup>12</sup> SUAREZ, Elena. “Vocabulary acquisition Strategies”

## 2.5. CHAPTER THREE:

### 2.5.1. Teaching strategies for each learning style in the cycle

#### Why?

Type One learners (*reflectors*) are primarily interested in personal meaning.

Teacher needs to *create a reason*.

- Teacher's role: motivator/witness.
- Method: simulation or discussion.
- Skills: observing, questioning, visualising, imagining, inferring, diverging, brainstorming, listening, speaking, and interacting.
- Activities: need time to think over, assimilate and prepare for activities, or review what has happened and reach decisions without pressures and tight deadlines.

#### What?

Type Two learners (*theorists*) are primarily interested in facts as they lead to conceptual understanding.

Teacher needs to *give them the facts* that deepen understanding.

- Teacher's role: teacher.
- Method: structured, informational and intellectually challenging.
- Skills: patterning, organising, analysing, seeing relationships and interrelationships, identifying parts, ordering, prioritising, classifying, and comparing.
- Activities: need opportunities to question, probe and explore methodically the assumptions and logic, and the interrelationships between ideas and events.

#### How?

Type Three learners (*pragmatists*) are primarily interested in how things work.

- Teacher's role: coach.
- Method: facilitation.
- Skills: inquiring, exploring, problem solving, experimenting, seeing, predicting, tinkering, recording, and making things work.
- Activities: need to practice techniques with coaching/feedback from a credible expert, and they must see a link between the subject matter and a problem or opportunity on the job.

### **What if?**

- Type Four learners (*activists*) are primarily interested in self-discovery.
- Teacher's role: evaluator/remediator.
- Method: self-discovery.
- Skills: integrating, evaluating, verifying, explaining, summarising, and synthesising.
- Activities: need a variety of new and challenging activities where they can have a lot of the limelight—business games, competitive tasks, role playing exercises.

To achieve deep learning we need to practice new behaviours and skills, receive feedback, see the consequences of new ways of behaving and in this way integrate new skills into our way of thinking and behaving.

The most widely used learning theory is Kolb's experiential learning cycle. There are four stages starting with Concrete Experience.

## 2.5.2. “The four stages of Experiential Learning”<sup>13</sup>

Cycle Element	Description	Activities which help learners experience
<b>Concrete Experience</b>	Kolb's cycle starts with a concrete experience. In other words it begins with doing something in which the individual, team or organization are assigned a task. Key to learning therefore is active involvement. In Kolb's model one cannot learn by simply watching or reading about it, to learn effectively the individual, team or organization must actually do.	<ul style="list-style-type: none"> <li>● ice breakers &amp; energizers</li> <li>● team games</li> <li>● problem solving</li> <li>● discussion</li> <li>● practical exercises, e.g. making a presentation</li> <li>● debates</li> </ul>
<b>Reflective Observation</b>	The second stage in the cycle is that of reflective observation. This means taking time-out from "doing" and stepping back from the task and reviewing what has been done and experienced. At this stage lots of questions are asked and communication channels are opened to others members of the team. Vocabulary is very important and is needed to verbalize and discuss with others.	<ul style="list-style-type: none"> <li>● ask for observation</li> <li>● write a short report on what took place</li> <li>● give feedback to other participants</li> <li>● quiet thinking time</li> <li>● tea &amp; coffee breaks</li> <li>● completing learning logs or diaries</li> </ul>
<b>Abstract Conceptualisation</b>	Abstract Conceptualization is the process of making sense of what has happened and involves interpreting the events and understanding the relationships between them. At this stage the learner makes comparisons between what they have done, reflect upon and what they already know. They may draw upon theory from textbooks for framing and explaining events, models they are familiar with, ideas from colleagues, previous observations, or any other knowledge that they have developed.	<ul style="list-style-type: none"> <li>● present models</li> <li>● give theories</li> <li>● give facts</li> </ul>
<b>Active Experimentation</b>	The final stage of the learning cycle is when the learner considers how they are going to put what they have learnt into practice. Planning enables	<ul style="list-style-type: none"> <li>● give learners time to plan</li> <li>● use case studies</li> </ul>

<sup>13</sup> <http://www.le.ac.uk/cc/rjm1/etutor/resources/learningtheories/kolb.html>

	<p>taking the new understanding and translates it into predictions as to what will happen next or what actions should be taken to refine or revise the way a task is to be handled. For learning to be useful most people need to place it in a context that is relevant to them. If one cannot see how the learning is useful to one's life then it is likely to be forgotten very quickly.</p>	<ul style="list-style-type: none"> <li>● use role play</li> <li>● ask learners to use real problems.</li> </ul>
--	--	---

### 2.5.3. "Teaching activities"<sup>14</sup>

Teaching Activities that Support Different Aspects of the Learning Cycle			
Concrete Experience	Reflective Observation	Abstract Conceptualization	Active Experimentation
readings examples fieldwork laboratories problem sets trigger films observations simulations/games text reading	logs journals discussion brainstorming thought questions rhetorical questions	lecture papers projects analogies model building	projects fieldwork homework laboratory case study simulations

### 2.5.4. Teaching strategies to teach vocabulary

Thornbury discusses several techniques and procedures a teacher might choose to help learners acquire new vocabulary items. The underlying premise is that sometimes there is a need for the instructor's direct intervention in the teaching of selected vocabulary items. Thornbury admonishes teachers to consider important issues such as how many words to present at a time, whether to

<sup>14</sup> <http://www.le.ac.uk/cc/rjm1/etutor/resources/learningtheories/kolb.html>

present the meaning or the form of a word first, and whether to use translation, as opposed to using some type of visual or verbal illustration.

This reflection will enable teachers to make appropriate choices. Thornbury adds that the procedure a teacher follows to help learners become aware of how the grammar of a given word works is very similar to the one learners use to understand collocations. The key is to provide learners with rich data and to guide them to pay attention to patterns and to notice.

Since Lewis claims that most of the activities used in the Communicative Approach are compatible with the Lexical Approach, then what teachers need to do is adapt activities so that the tasks have a clear lexical focus. To achieve this goal, Lewis points out that teachers should do the following:

- Consciously take every chance to expand the learners' phrasal lexicon.
- Develop learners' awareness of word-grammar as well as sentence grammar.
- Highlight Fixed Expressions and prototypical examples, so ensuring learners have maximum benefit from the language they meet.
- Encourage accurate observation and noticing by learners, but without excessive analysis.
- Use many different ways to increase learners' awareness of the value of noticing, recording and learning multi-word items.
- Encourage learners to keep a well-organized lexical notebook.
- Encourage lexical, but not structural, comparison between L1 and L2.
- Help learners to hear and learn language in multi-word units.
- Talk more informally, but in a carefully controlled way, with your class.
- Tell simplified anecdotes (true or otherwise): increase carefully-controlled teacher talking time.
- Take a global, holistic view of pronunciation.
- Value successful language at all times, even if it is not formally accurate.

Implementing the lexical approach in your classes does not mean a radical upheaval, likely to upset colleagues, parents and learners. On the contrary, if introduced with thought and sensitivity, its introduction will be almost invisible, involving perhaps 20 or even 50 small changes in every lesson, each in itself unremarkable, but the cumulative effect will be more effective teaching and more efficient learning.



#### **2.5.4.1. Types of activities**

It is important to follow a series of tasks carefully constructed on lexical principles.

The following is a list of the most important:

- In de-contextualized gapped sentences, the gap should not occur in the topic element.
- Since the quantity and quality of the input influences progress the most, exercises must be based on highly probable, useful examples.
- If exercises are to teach rather than test, learners must recognize some answers and deduce others by a process of elimination, using linguistic clues, the group's shared knowledge, and a small element of plain guesswork.
- When working with collocations, words should be presented in descending order of information content. This would make the first examples the strongest collocations.
- Collocations should be presented in context. It is not a good idea to have learners match de-contextualized words.

The following is a list of the basic exercise types:

- Identifying chunks: This is a fundamental skill which aids language acquisition.
- Matching: Parts of collocations, expressions, lines of stereotypic dialogue.
- Completing: Blank spaces correspond to partner words from fixed collocations.
- Categorizing: Use categories learners perceive or follow some guideline suggested by the teacher.
- Sequencing: Learners are given expressions or verbs and are asked to put them in the most likely order.
- Deleting: Learners circle the word that does not belong.

### **2.6. Hypothesis system**

#### **2.6.1. Null Hypothesis**

The experiential learning does not include in the teaching of vocabulary.

### **2.6.2. Alternative Hypothesis**

The experiential learning affects positively the teaching of vocabulary.

## PART THREE

### 3. METHODOLOGICAL DESIGN

#### 3.1. Research type and design

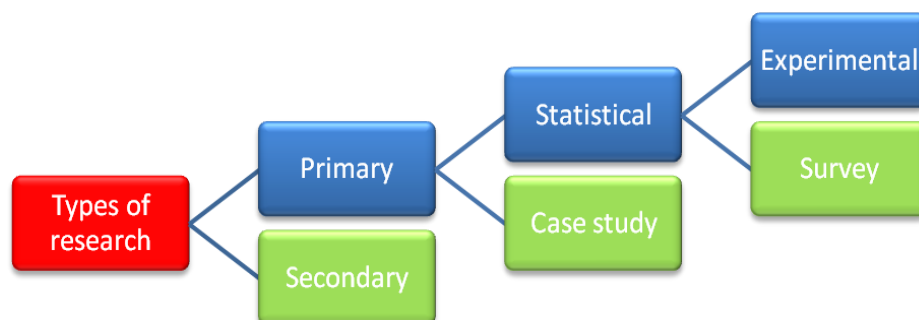
This research type is basic, descriptive, quantitative, of field and transversal.

The research design is quasi-experimental, the population will be applied to an elementary school with 30 students, divided into 2 groups: control and experimental group.

First, a pre-test to get information about the students previous knowledge will be administered. Then, an experiential learning methodology for teaching vocabulary will be applied to the experiential group during three month. After that, a post-test will be administered to both groups.

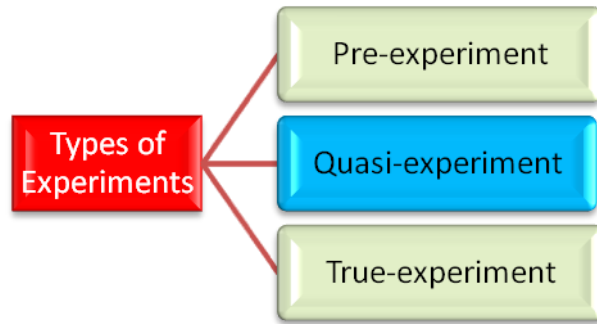
#### 3.1.1. Types of research

In our research project the primary research way considered, in that it is derived from the primary sources of information (e.g., a group of students who need to learn new vocabulary, next the election of statistical study that are basically cross-section in nature, considering a group of students as a cross-section of possible behaviors at a particular point or at several distinct points in time; in addition, statistical analysis is used in this thesis to estimate the probability, or likelihood that the results not occur by chance alone, and then the election of the experimental method that controls the conditions under which the scores and investigation is observed.



### 3.1.2. Types of experiment

We had to work with quasi-experiment, Quasi-experiment means that has both pre- test and post- test with control group and experimental group, but no random assignment of subjects.



### 3.2. Population and sample

The population will be 30 students and they will be divided in two groups as shown below:

#### Experimental group

##### Students

- 1 Arrevalo Bautista Carla Abigail
- 2 Benavidez Vásquez Danny Leonardo
- 3 Bolaños Conlago Mishell Lidia
- 4 Cartuche Pachacama Wendy Mishell
- 5 Chamorro Córdoba Tania Cristina
- 6 Chiriboga Soldado Jessica Gabriela
- 7 Chispón Alvarado Byron Hitler
- 8 Gallardo Pinargo Nicolay Rafael
- 9 García Santana Anel Andrea
- 10 Guamán Locke Kleber Enrique
- 11 Ludeña Salinas Mary Isabel
- 12 Marcillo gualotuña Nelly carolina
- 13 Suntaxi Guallichico Mishell Paola
- 14 Suntaxi Tipán Jasmín Fernanda
- 15 Vasco Hernández Willian Alexander

#### Control group

##### Students

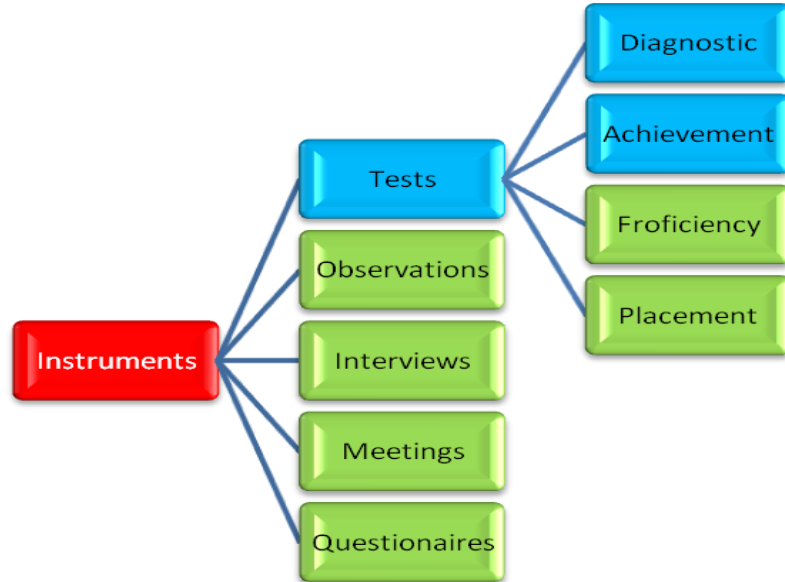
- 1 Chumano Oña Jefferson Javier
- 2 Gomez Tipán Karina Alexandra
- 3 Palacios Tipán Jonathan Paúl
- 4 Quinche Suntasig Jessica Paola
- 5 Simaluisa Tandazo Jessica Cristina
- 6 Suntaxi Criollo Jessica Liliana
- 7 Guallichico Loachamín Ronny Javier
- 8 Gutierrez Mediavilla Nataly Alejandra
- 9 Gutierrez Nacimba Jessica Pamela
- 10 Nacimba Paucar Alex Darío
- 11 Pachacama Vasco Erika Vanesa
- 12 Pachacama tlpán Stalin Paul
- 13 Quishpe Pachacama Mishell Alexandra
- 14 Suntaxi Suntaxi Jefferson Stalin
- 15 Vargas Andrade Jonny Esteven

### 3.3. Fielding

The research will applied with 30 students of the J.M. Jijón Caamaño y Flores school that is located in Amaguaña town, Pichincha Province, , during the first term, 2007-2008 school year.

### 3.4. Instruments for data collection

The instrument for gathering data will be the test.



Note: The pre-test and post-test are in annexes N° 2 and 3

The testes were made thinking in the following skills:

#### TEST OUTLINE

	Part	Item Type	Number of items	Minutes
1.	Listening	Multiple-choice	05	10
2.	Structure	Multiple-choice	05	10
3.	Vocabulary	Multiple-choice	10	20
			<hr/>	<hr/>
			20	40
			<b>Administration</b>	05
				<hr/>
				45

**Listening:** Questions and statements (multiple-choice). 05 items.

**Structure:** Completion (multiple-choice). 05 items.

**Vocabulary:** Pictures objectives (multiple-choice) and Definition (multiple-choice). 10 items.

#### 3.5. Processing and analysis

Once the data is collected will be analyzed, tabulated and interpreted by means of central tendency, with descriptive statistics, it will be represented by means of statistic references, this will be made in base of results of the control group and the experimental group the hypothesis test, with the following data using the Excel and the statistical program (SPSS).

Experimental group

Post-test Students	Score
1	20
2	19
3	20
4	19
5	19
6	18
7	20
8	20
9	19
10	20
11	20
12	19
13	20
14	20
15	19

Control group

Post-test Students	Score
1	12
2	10
3	15
4	12
5	14
6	10
7	7
8	10
9	11
10	12
11	10
12	15
13	14
14	10
15	14



**PART FOUR**

**4. TESTING THE HYPOTHESIS**

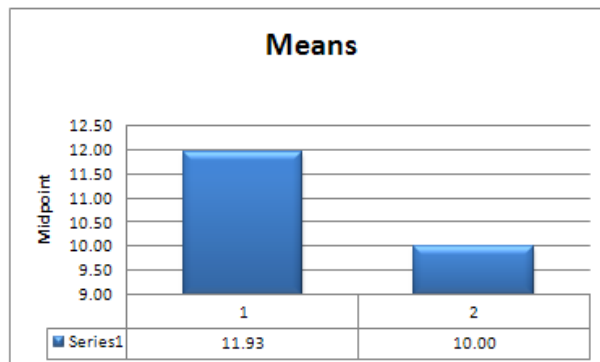
**4.1. Graphical exposition of results**

Pre-test

**Experimental group pre-test**

**Control group pre-test**

<b>Students</b>		<b>score</b>	<b>Students</b>		<b>score</b>
1	Arrevalo Bautista Carla Abigail	9	1	Chumano Oña Jefferson Javier	10
2	Benavidez Vásquez Danny Leonardo	15	2	Gomez Tipán Karina Alexandra	9
3	Bolaños Conlago Mishell Lidia	15	3	Palacios Tipán Jonathan Paúl	12
4	Cartuche Pachacama Wendy Mishell	12	4	Quinche Suntasig Jessica Paola	11
5	Chamorro Córdoba Tania Cristina	9	5	Simaluisa Tandazo Jessica Cristina	12
6	Chiriboga Soldado Jessica Gabriela	12	6	Suntaxi Criollo Jessica Liliana	9
7	Chispón Alvarado Byron Hitler	11	7	Guallichico Loachamín Ronny Javier	8
8	Gallardo Pinargo Nicolay Rafael	13	8	Gutierrez Mediavilla Nataly Alejandra	10
9	García Santana Anel Andrea	8	9	Gutierrez Nacimba Jessica Pamela	9
10	Guamán Locke Kleber Enrique	11	10	Nacimba Paucar Alex Darío	10
11	Ludeña Salinas Mary Isabel	14	11	Pachacama Vasco Erika Vanesa	13
12	Marcillo gualotuña Nelly carolina	10	12	Pachacama tlpán Stalin Paul	14
13	Suntaxi Guallichico Mishell Paola	14	13	Quishpe Pachacama Mishell Alexandra	9
14	Suntaxi Tipán Jasmín Fernanda	10	14	Suntaxi Suntaxi Jefferson Stalin	5
15	Vasco Hernández Willian Alexander	13	15	Vargas Andrade Jonny Esteven	9
<b>Mean</b>		<b>11.93</b>	<b>Mean</b>		<b>10.00</b>



Experimental group

Control group

Pre-test

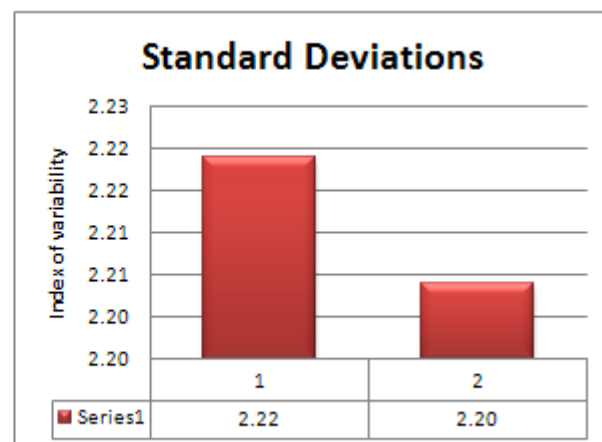
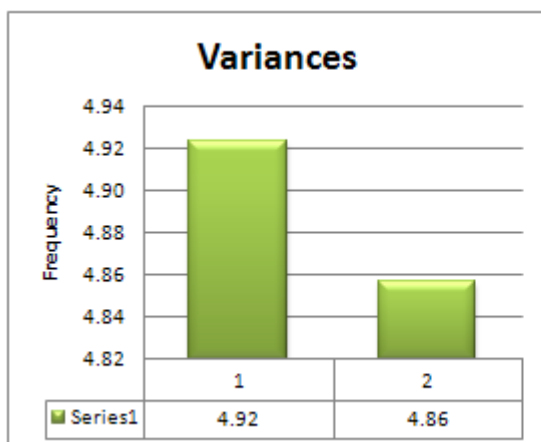
pre-test

Ord.	Score	Mean	(s-m) <sup>2</sup>
1	9	11.93	8.60
2	15	11.93	9.40
3	15	11.93	9.40
4	12	11.93	0.00
5	9	11.93	8.60
6	12	11.93	0.00
7	11	11.93	0.87
8	13	11.93	1.14
9	8	11.93	15.47
10	11	11.93	0.87
11	14	11.93	4.27
12	10	11.93	3.74
13	14	11.93	4.27
14	13	11.93	1.14
15	13	11.93	1.14
			<b>68.93</b>

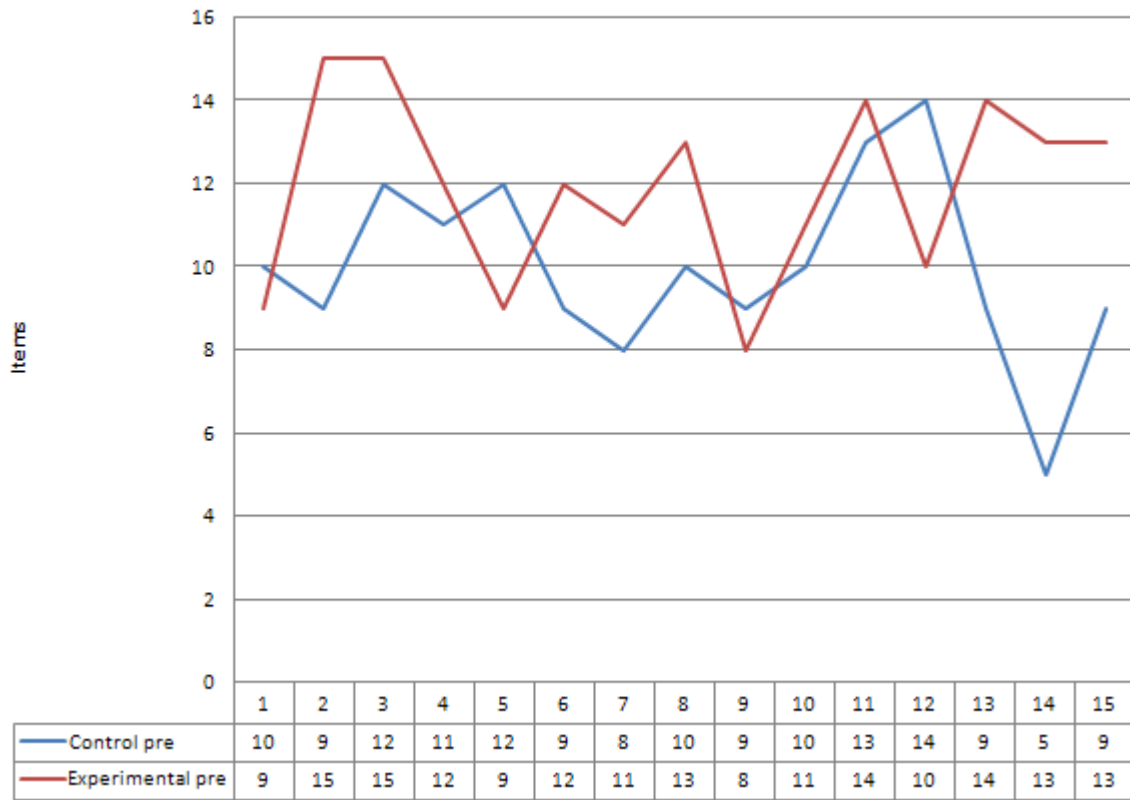
Ord.	Score	Mean	(s-m) <sup>2</sup>
1	10	10.00	0.00
2	9	10.00	1.00
3	12	10.00	4.00
4	11	10.00	1.00
5	12	10.00	4.00
6	9	10.00	1.00
7	8	10.00	4.00
8	10	10.00	0.00
9	9	10.00	1.00
10	10	10.00	0.00
11	13	10.00	9.00
12	14	10.00	16.00
13	9	10.00	1.00
14	5	10.00	25.00
15	9	10.00	1.00
			<b>68.00</b>

Variance pre-test = 4.92  
 Standard deviation pre-test = 2.22

Variance pre-test = 4.86  
 Standard deviation pre-test = 2.20



### Experimental and Control group



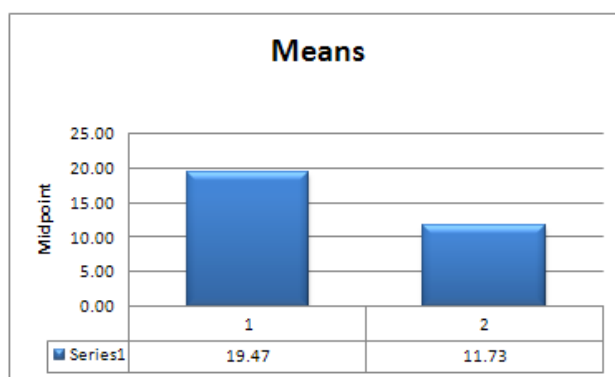
Post-test

**Experimental group post-test**

	<b>Students</b>	<b>score</b>
1	Arrevalo Bautista Carla Abigail	20
2	Benavidez Vásquez Danny Leonardo	19
3	Bolaños Conlago Mishell Lidia	20
4	Cartuche Pachacama Wendy Mishell	19
5	Chamorro Córdoba Tania Cristina	19
6	Chiriboga Soldado Jessica Gabriela	18
7	Chispón Alvarado Byron Hitler	20
8	Gallardo Pinargo Nicolay Rafael	20
9	García Santana Anel Andrea	19
10	Guamán Locke Kleber Enrique	20
11	Ludeña Salinas Mary Isabel	20
12	Marcillo gualotuña Nelly carolina	19
13	Suntaxi Guallichico Mishell Paola	20
14	Suntaxi Tipán Jasmín Fernanda	20
15	Vasco Hernández Willian Alexander	19
<b>Mean</b>		<b>19.47</b>

**Control group post-test**

	<b>Students</b>	<b>score</b>
1	Chumano Oña Jefferson Javier	12
2	Gomez Tipán Karina Alexandra	10
3	Palacios Tipán Jonathan Paúl	15
4	Quinche Suntasig Jessica Paola	12
5	Simaluisa Tandazo Jessica Cristina	14
6	Suntaxi Criollo Jessica Liliana	10
7	Guallichico Loachamín Ronny Javier	7
8	Gutierrez Mediavilla Nataly Alejandra	10
9	Gutierrez Nacimba Jessica Pamela	11
10	Nacimba Paucar Alex Darío	12
11	Pachacama Vasco Erika Vanesa	10
12	Pachacama tlpán Stalin Paul	15
13	Quishpe Pachacama Mishell Alexandra	14
14	Suntaxi Suntaxi Jefferson Stalin	10
15	Vargas Andrade Jonny Esteven	14
<b>Mean</b>		<b>11.73</b>



Experimental group

Control group

Post-test

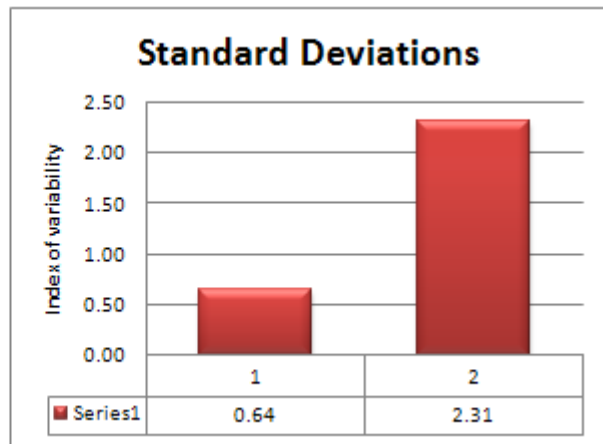
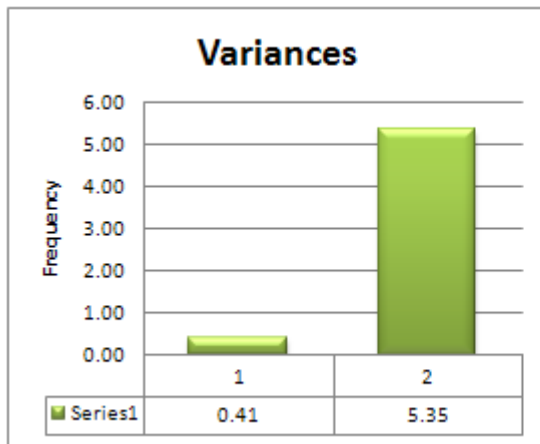
post-test

Ord.	Score	Mean	(s-m) <sup>2</sup>
1	20	19.47	0.28
2	19	19.47	0.22
3	20	19.47	0.28
4	19	19.47	0.22
5	19	19.47	0.22
6	18	19.47	2.15
7	20	19.47	0.28
8	20	19.47	0.28
9	19	19.47	0.22
10	20	19.47	0.28
11	20	19.47	0.28
12	19	19.47	0.22
13	20	19.47	0.28
14	20	19.47	0.28
15	19	19.47	0.22
			<b>5.73</b>

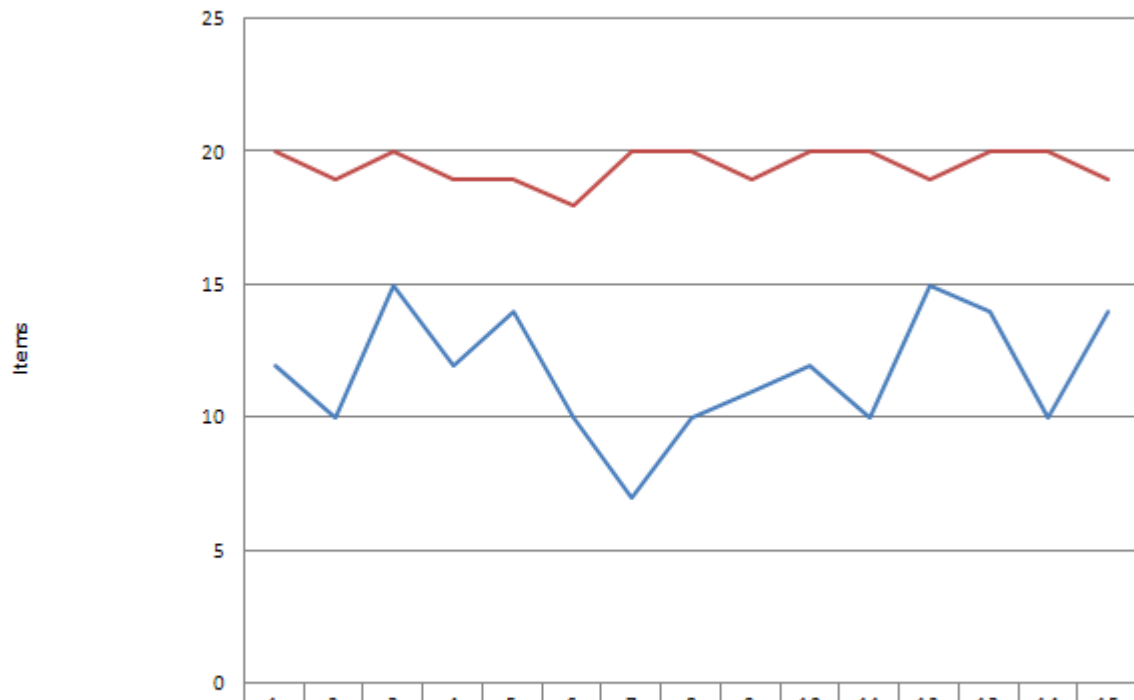
Ord.	Score	Mean	(s-m) <sup>2</sup>
1	12	11.73	0.07
2	10	11.73	3.00
3	15	11.73	10.67
4	12	11.73	0.07
5	14	11.73	5.14
6	10	11.73	3.00
7	7	11.73	22.40
8	10	11.73	3.00
9	11	11.73	0.54
10	12	11.73	0.07
11	10	11.73	3.00
12	15	11.73	10.67
13	14	11.73	5.14
14	10	11.73	3.00
15	14	11.73	5.14
			<b>74.93</b>

Variance post-test = **0.41**  
 Standard deviation post-test = **0.64**

Variance post-test = **5.35**  
 Standard deviation post-test = **2.31**



### Experimental and Control group



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Control post	12	10	15	12	14	10	7	10	11	12	10	15	14	10	14
Experimental post	20	19	20	19	19	18	20	20	19	20	20	19	20	20	19

## 4.2. Analysis of results

The Standard error of the difference into two means = 0.62

$$S_{X_1 - X_2} = \sqrt{\frac{\sum(s - m)_1^2 + \sum(s - m)_2^2}{n_1 + n_2 - 2} \left( \frac{1}{n} + \frac{1}{n} \right)}$$

$$S_{X_1 - X_2} = \sqrt{\frac{5.73 + 74.93}{15 + 15 - 2} \left( \frac{1}{15} + \frac{1}{15} \right)}$$

$$S_{X_1 - X_2} = \sqrt{\frac{80.66}{28} \left( \frac{2}{15} \right)}$$

$$S_{X_1 - X_2} = \sqrt{\frac{161.3}{420}}$$

$$S_{X_1 - X_2} = \sqrt{0.38}$$

$$S_{X_1 - X_2} = 0.62$$

Reason t = 12.48

$$T = \frac{\bar{X}_1 - \bar{X}_2}{S_{X_1 - X_2}}$$

$$T = \frac{19.47 - 11.73}{S_{X_1 - X_2}}$$

$$T = \frac{7.74}{0.62}$$

$$T = 12.48$$

Degrees of freedom = 28

$$gdl = n_1 + n_2 - 2$$

$$gdl = 15 + 15 - 2$$

$$gdl = 15 + 15 - 2$$

$$gdl = 28$$

The Student's t (degree of freedom 28 and probability 0.05 used in education).

If the calculated reason T (12.48) is > than 2.048, the null hypothesis is rejected and the Experiential Learning has a positive effect in teaching vocabulary.

$$P < 0.05$$

Note: See the **Student's t** in annex N° 4



### 4.3. Conclusions

- ✓ The Experiential Learning methodology and the handbook have been very innovative, understandable and easy for the students.
- ✓ It was easy for the students this methodology, because it has been designed to be learned step by step in a chronological order, and they did it very well.
- ✓ The students got new concepts, and computing science vocabulary. They become familiar with the new words and are aware that those words have utility in their life today.
- ✓ Due to this new methodology, the knowledge acquired was high; consequently, the students were able to assembly and unassembled a computer.
- ✓ Using the Experiential Learning methodology, student got solid basis in English applied to Computing Science, which will be useful for the next educational stage.

### 4.4. Recommendations

- ✓ To teach English and Computer Science using the Experiential Learning proposed by David Kolb's because it is easier than the traditional way, and the students' grades, after applying the tests, were surprising high.
- ✓ To encourage the students to observe, think, analyze, and evaluate every time a knowledge is imparted, therefore, English hours should be increased to allow that learning process.
- ✓ To guide the students about the knowledge that have personal meaning to them, because they are motivated to learn what have good utility in their lives; otherwise, it a waste of time.
- ✓ To guide the students to from the experience, because what you do, it's what you learn and remember, helped with real didactic materials.

- ✓ To speak English to students at all times, so they become used to new English words in computing science.

## PART FIVE

### 5. PROPOSAL

One of the most important treasures that the human being has is the ability to communicate with the language. In fact, we can do it in various languages. As we say above “*Without grammar very little can be conveyed, but without **vocabulary** nothing can be conveyed*”.<sup>15</sup>

For this reason, as a strategy to teach vocabulary related to the computing science we have decided to use the methodology called “Experiential learning” proposed by David Kolb which is the Kolb’s cycle.

Because the experiential learning proposed by David Kolb uses an effective learning wheel composed of four dimensions each one has different learning style or preferences, such as: Concrete experience, Abstract conceptualization, Active experimentation, and Reflective observation, making them the learning /process effective when the learning has an experiential component, in other words, experiential learning is a learner centred approach which starts with the premise that people learn best from experience, it means by doing.

As we have observed in the results of this research, it is necessary to take into account. That the Experiential Learning affects positively the teaching of vocabulary, although J.M. Jijón Caamaño y Flores School belongs to Public education, that is to say the children are of low economic resources, the lack of didactic material ,the lack of the English laboratory and the limited hours of classes in the English Language (one hour per week) etc.

In spite of these problems the majority of students are interested in learning English and vocabulary related to computing science at the same time, not only because it is interesting, but it is, also, an elemental tool in their academic preparation. Finally we recommended an interchange of ideas between school authorities and teachers with the purpose of improving knowledge to revert such situation.

For all of these reasons and using the Kolb’s cycle, our thesis is to familiarize students with the terminology used in computing science, and that students in the elementary schools learn new

---

<sup>15</sup> D.A. Wilkins, *Linguistics in Language Teaching*

vocabulary related to this science; Besides, the goal is to teach learners the correct names of the different parts of a computer termed ***“Teaching vocabulary applied to basic computing science”***.

We are very grateful that our proposal was considerate as part of the thesis.

It's important to emphasize that there are many scientific methodologies to teach something in particular, but all of them can find if there isn't students predisposition to learn. And on the other hand, if the teacher doesn't have the predisposition to teach.

Keeping that in mind, today, English Language has become a global communication language in all major fields, as I said above, learning English language and computing science at the same time will allow students to open windows to the world, unlocks doors to have more opportunities, and expands their minds to new ideas.

## **5.1. Objectives**

### **5.1.1. General Objectives**

- To teach to the students, vocabulary related to computing science and English at the same time, through David Kolb's "Experiential Learning" and with this knowledge they will learn how to be self-sufficient in their lives.

### **5.1.2. Specific Objectives**

- To motivate the students, in the importance of this field and that they would have good knowledge in English and computing science to begin their second students stage.
- To use basic notions about computers and to familiarize with the terminology used in the computing science.
- To use the technical vocabulary appropriately in the use of the computer.

## **5.2. Principles of experiential learning**

- **Experiential learning** recognises that people learn best from their own experiences and their own reviews

- **Experiential learning** subscribes to the notion that what people do is more important than what they know
- **Experiential learning** renders behaviours and attitudes visible and thereby can become acknowledged and then addressed
- **Experiential learning** is built on the premise that it is not enough to explain to people what to do, they must be shown how to actually do it and then how to improve it
- **Experiential learning** moves beyond knowledge and into skill by generating a learning experience - the more experience the greater the skill
- **Experiential learning** gets to grips with the most important aspect of training and that is to achieve change in behaviour and attitude
- **Experiential learning** understands that to be remembered over a long period of time the learning process should be enjoyable, motivating and rewarding

It implies that the principles have scientific implications in the teaching/learning process.

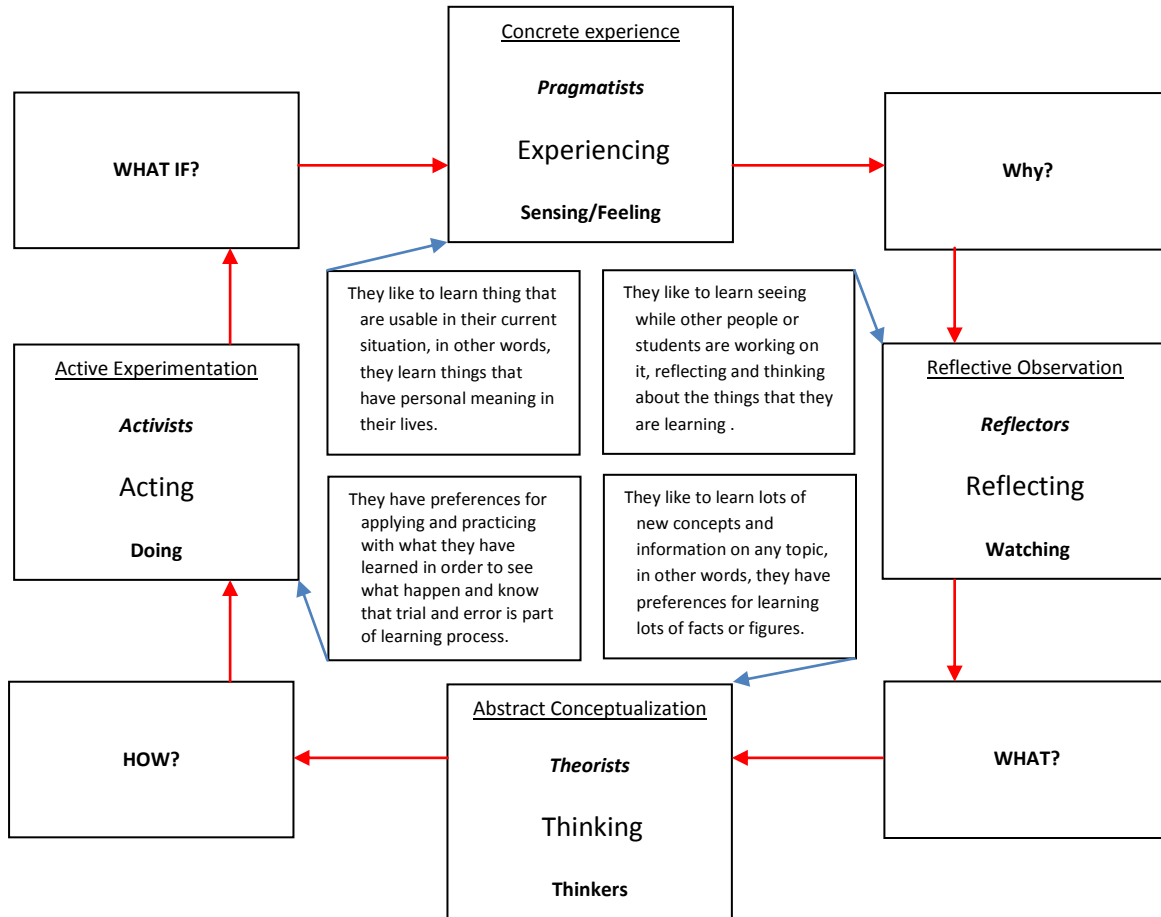
### 5.3. "Kolb's Experiential Learning Model"<sup>16</sup>

Kolb says that ideally this process represents a learning cycle or spiral where the learner 'touches all the bases', ie., a cycle of **experiencing, reflecting, thinking, and acting**. Immediate or concrete experiences lead to observations and reflections. These reflections are then assimilated (absorbed and translated) into abstract concepts with implications for action, which the person can actively test and experiment with, which in turn enable the creation of new experiences.

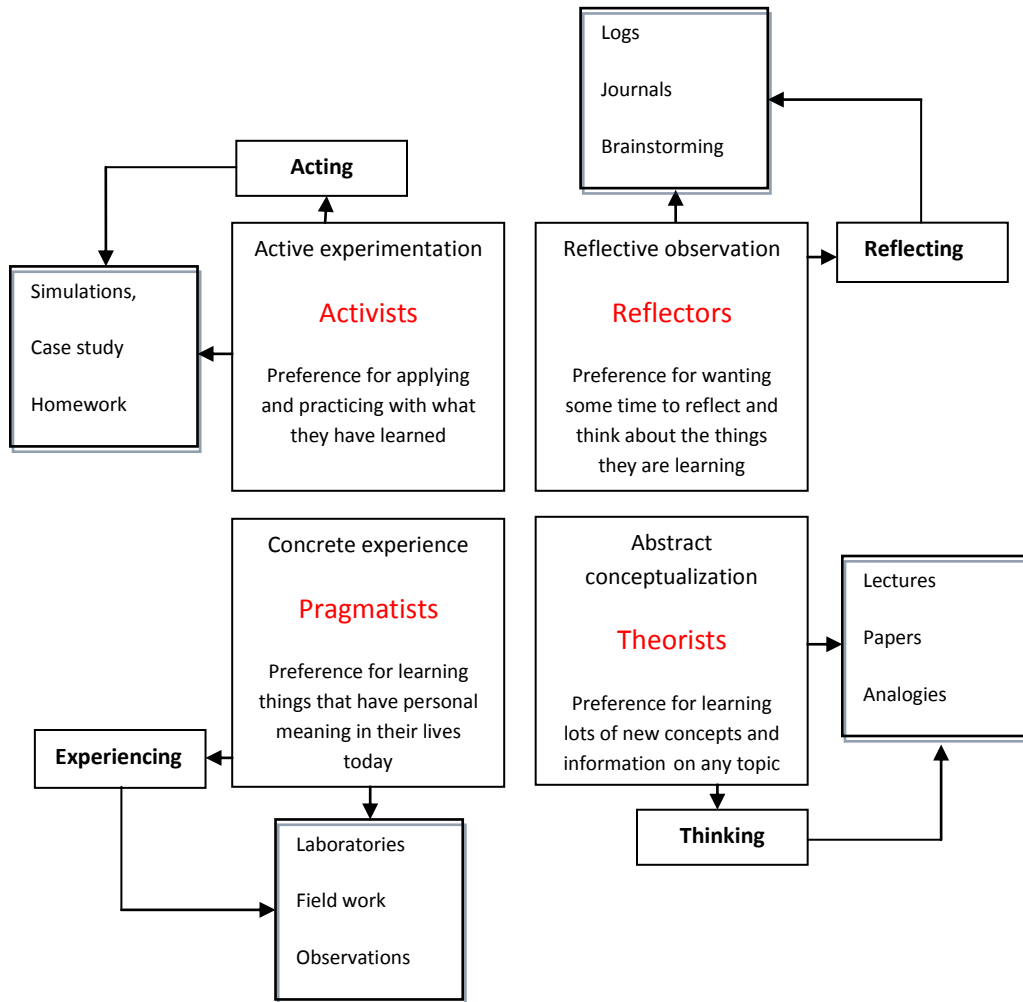
---

<sup>16</sup> <http://www.businessballs.com/kolblearningstyles.htm>

5.4. The learning cycle can be represented by this diagram



5.5. What do the different forms of knowledge need to achieve the goals?



## 5.6. Time table

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<b>September</b>					0 6	0 7	0 8	0 9
<b>Experimental</b>								
<b>Control</b>								
<b>Experimental</b>		1 0	1 1	1 2	1 3	1 4	1 4	1 6
<b>Control</b>								
<b>Experimental</b>		1 7	1 8	1 9	2 0	2 1	2 2	2 3
<b>Control</b>								
<b>Experimental</b>		2 4	2 5	2 6	2 7	2 8	2 9	3 0
<b>Control</b>								
<b>October</b>								
<b>Experimental</b>		0 1	0 2	0 3	0 4	0 5	0 6	0 7
<b>Control</b>								
<b>Experimental</b>		0 8	0 9	1 0	1 1	1 2	1 3	1 4
<b>Control</b>								
<b>Experimental</b>		1 5	1 6	1 7	1 8	1 9	2 0	2 1
<b>Control</b>								
<b>Experimental</b>		2 2	2 3	2 4	2 5	2 6	2 7	2 8
<b>Control</b>								
<b>Experimental</b>		2 9	3 0	3 1				
<b>Control</b>								
<b>November</b>								
<b>Experimental</b>					0 1			
<b>Control</b>								

### Experimental group

Hours class for each unit	=	13.2	*	6	=	79.0	hours
Do it yourself (activities)	=	1.0	*	6	=	6.0	hours
Examination	=	1.0	*	2	=	2.0	hours
<b>Total</b>	=				=	87.0	hours



Each hour has 45 minutes. Real hours =  $(87*45)/60$

Real hours= 65.25

Two examinations, pre and post-test =  $(2*45)/60$

= 1.50

63.75

$63.75/6$  units =10.63 hours for each unit.

$10.63/4$  learning style = 2.66 hours.

To convert 66 into minutes =  $(66*60)/100 = 39.39$ , now 2.66 means (2 hours 39 minutes 2:39)

By doing this, we have made a handbook attempting to teach children computing science and the English at same time with an innovative, active, understandable, and easy methodology called Experiential Learning proposed by David Kolb, without any complicated exercises, Moreover, this methodology has been designed to be learned step by step in a chronological order, and can be used as a source of consultation, by those who are interested in learning computing and English at the same time, or as reference in future activities, not only in computers, but also in electric appliances at their homes.

The "Handbook is an Experiential Learning" is a comprehensive resource that draws together contemporary thought and practice on a wide range of experiential learning applications from the best-known authorities on the topic. The handbook covers a broad range of experiential learning methods including: games and simulations, action learning, role-play, reflective practice, and creative activities.

### **5.7. An Innovative Handbook**

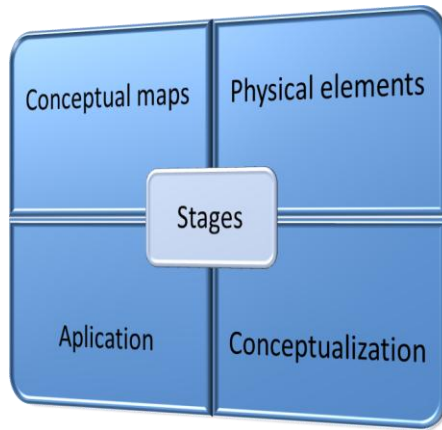
This handbook that we have proposed has 6 units and each unit has its topics and sub-topics. At the final of the each unit there are activities called **DO IT YOURSELF**, with the purpose of reinforcing the knowledge of the student in each unit.

This whole innovative method is in Power Point program, this Program is made with linked pages that allow moving from a place to another.

**Note:** The Handbook is in the Annex. N° 1

### 5.8. Stages in our learning process

In our case, the classes were given in the following way: using conceptual maps with visual aids, next identification and recognition of physical parts of a computer; then, explanation of each part by means of concepts, and finally assembly and disassembly of a computer with its parts.



**Lesson plans**

## BIBLIOGRAPHY

### ✓ *Encyclopedias*

“Microsoft Encarta2007”

“Curso de Informática”

“Británica” Deluxe Edition. (2003).

### ✓ *Dictionaries*

“Collins dictionary”. Logman active study dictionary 4<sup>th</sup> edition.

“Book case 4.0”

“Cambridge dictionary Klett compact”

### ✓ *Books*

BROWN, James Dean. The Elements of Language Curriculum HEINLE & HEINLE PUBLISHERS (1995)

GLENDINNIG, Eric H. Basic English for computing Oxford (1999)

GUAMÁN, William. Teclitas Interactivas Editexpa(2004)

GUAMÁN, Willian. Screen Computer (2004)

KOLB, David. Experience as a source of Learning and Development (1984)

LARSEN-Freeman. System Intelligibility and individual learner differences in the EIL context (2001)

LEYLA, Hasbun. The Effect of Explicit Vocabulary And Attitude Towards Reading

MARION, Williams and Robert L. Burden Psychology Language Teachers Cambridge University Press (1997)

MICHEL, Lewis. The Lexical Approach (1993)

NOURY, Myrian. Computation Packets

NUNAN, David. Research Methods in Language Learning

SUAREZ, Elena. Vocabulary acquisition Strategies

THORNBURY, Scott. How to Teach Vocabulary Longman (2002)

WILKINS, David. Linguistics in Language Teaching Cambridge University Press (1992)

✓ *Internet*

<http://www.microsoft.com>

<http://www.cogsi.uwaterloo.ca/Articles/epistemological.html>

<http://www.conncoll.edu/academics/departaments/sociology/>

<http://www.learningandteaching.info/learning/experience.htm#ConfortZone>

<http://www.learningfromexperience.com/>

<http://www.learningandteaching.info/learning/experience.htm#Elaborations>

<http://www.learningandteaching.info/learning/experience.htm#Elaborations>

<http://www.learningandteaching.info/learning/experience.htm#SubjectDisciplines>

<http://www.businessballs.com/kolblearningstyles.htm>

<http://www.le.ac.uk/cc/rjm1/etutor/resources/learningtheories/kolb.html>

<http://www.le.ac.uk/cc/rjm1/etutor/resources/learningtheories/kolb.html>

ANNEX N° 1 Handbook which was used in the learning/process.

ANNEX N° 2 Pre-test used at the beginning of the learning process.

ANNEX N° 3 Post-test used at the end of the learning process.



ANNEX N° 4 Table of ( T student)

Annex N° 5 Location of the school, it is located in Amaguaña town, Pichincha Province.



Annex N° 6 Students of J.M. JIJON Y CAMAÑO taking the Experiential Learning Test, and two of the best students who are rewarded by Wilson And Yolanda.

