UNIVERSITY OF EL SALVADOR

SCHOOL OF ARTS AND SCIENCE

SCHOOL OF POSGRADUATE

MASTER IN ENGLISH DIDACTIC

THE EFFECTS OF NEUROSCIENCE STRATEGIES IN THE TEACHING PROCESS OF ENGLISH LANGUAGE ON STUDENTS ORAL PERFORMANCE FROM INTENSIVE INTERMEDIATE ENGLISH I FROM SEMESTER II-2017 AT FOREIGN LANGUAGE DEPARTMENT AT UNIVERSITY OF EL SALVADOR.

A THESIS IN THE FIELD OF ENGLISH TEACHING

FOR THE DEGREE OF MASTER IN ENGLISH DIDACTICS

PRESENTED BY:

AREVALO DE CRUZ, DINORA ISABEL AC15007

HERNÁNDEZ VAQUERANO, MISAEL JONATHAN HV07002

ASSESOR: Msdi. ROLANDO GUZMÁN MARTÍNEZ

CAMPUS, OCTOBER 29th, 2018

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Msdi. ROLANDO GUZMÁN MARTÍNEZ

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ACKNOWLEDGMENT

This research would have been impossible without the aid and support of all my classmates and professors during this period of study even those who did say that I wouldn´t make it. By saying that, they strengthened me to be brave and to finish it. I would like to present special thanks to Jonathan Hernández, who is my thesis partner, during this almost four years became not only a classmate but also a friend and a family member in Jesus, who has enlarged my spiritual and family life.

To all my classmates and specially Magali Escobar who was the first classmate who took the time to help me with an essay during the first semester. Also to Orlando Gómez who is not only a special man but a great human being and last but not less important, I thanks to all my professors but specially Nicolás Ayala and Odir Mendizabal who were not only class givers but also tutors and guides in this almost four years journey.

To my dear thesis advisor Msdi. Rolando Guzmán who had the kindness to work with us during this process and help us to conclude this academic achievement.

BBA. DINORA DE CRUZ

ACKNOWLEDGMENTS

This work could not have been completed without the help of Professor Rolando Guzmán who kindly accepted to be the tutor of this research project. I highly appreciate his time and dedication to revise, proofread and to provide us with the most essential feedback paper to complete this research. I would like to thank my thesis partner Dinora de Cruz who was very helpful not only on this thesis work but also in my spiritual life. I appreciate her motivation, dedication and enthusiasm to work on this project. Also thank my classmates who shared unforgettable experience in and outside the classroom. Finally, I want to thank to all professors who were part of the master degree program, teaching' staff, since they shared their knowledge and experience through three years of study. They were Edgar Nicolas Ayala, Pedro Antonio Salazar, Juan Carlos Cruz, Ricardo Cabrera, and Odir Alexander Mendizábal all of them contributed to my professional development that was so useful to finish the master program.

BA. MISAEL JONATHAN HERNÁNDEZ VAQUERANO

DEDICATION

I dedicate this thesis to my Heavenly Father, who encounters me and who always helps me accomplish the desires of my heart. (Psalm 37:4) To my beloved mother, who not only inspires me but also makes me feel proud of her. She encourages me to accomplish everything in my life. I have in my mind and in my heart these Bible words in Ecclesiastes 3:

"For everything there is a season, and a time for every matter under heaven!"

And now, this is my time to obtain this degree.

I also dedicate this achievement to my husband Juan José, and to my children Raquel, Juan José and Juan Marcos, who have supported me in many areas such as dedicating time and sharing financial responsibilities and other tasks like joining me in the classroom several times.

BBA. DINORA ARÉVALO DE CRUZ

DEDICATION

I dedicate this work to Almighty God who has been always with me, and my family. I thank specially to my mother Maria Erlinda Vaquerano who provided me with both economical and motivational support. Also, to my wife Claudia Serrano who helped me cope difficult situations and was very patient with me by taking care of my children while I studied and carried out this research. I also dedicate this work to my father Roberto Hernandez who encouraged me to go on with my studies.

BA. MISAEL JONATHAN HERNÁNDEZ VAQUERANO

Table of Content.

ABSTRACT

This paper presents a Quasi-experimental research design in the field of English Teaching. This was conducted at the Foreign Language Department at the University of El Salvador. This research was aimed to contribute in the teaching process to improve the oral performance of the Intensive Intermediate English I students, semester II-2017, group 04 from 1 to 3 pm. This research was implemented by Master students, to obtain a degree on English Didactics. The researchers intervened on the teaching process by the observation of the use of four neuroscience strategies during the class periods. These Neuroscience were Active Learning, colorful images, Taking Notes and Incidental Learning. Researchers gathered information by means of observation guides. During the intervention process the researchers provided the group of students in this class full color images in the classroom and the class material including units from workbook printed in full color. The researchers also provided complimentary activities which were developed by the professor. The researchers gave the materials to students and carried out the observation during 8 weeks of class. This thesis shows through the data analysis the results from students who were exposed to the neuroscience strategies. It is presented also the main findings of this study, four recommendations to authorities, to Foreign Language Department, to students in English bachelor and to futures researchers to continue research on this topic. Outcomes are based on two oral tests, the midterm oral exam and final oral evaluation after the intervention process. These are represented by means of both charts and graphs and the tendency graph to present the difference between the first oral evaluation previous the intervention and the final evaluation after the intervention. Each graph has its explanation based on the results. Furthermore, answers not only on the main research but also on the subsidiary questions are provided.

Key words: Neuroscience strategies, Active Learning, Visual Aids, Incidental Learning, Note Taking. Oral performance.

INTRODUCTION

This research project has been based on the topic of Brain and Neuroscience. It studied the effects that Neuroscience strategies had on students' oral performance in the teaching process of English Language on students from Intensive Intermediate English I, during semester II-2017 at the Foreign Language Department at University of El Salvador. According to Huffman (2002), Neuroscience is an interdisciplinary field that studies how biological process, especially activities in the brain and nervous system relates to behavior. Considering that, the reason why this research project was carried out is to show not only the importance of neuroscience strategies but also how students can benefit by improving their oral performance. Besides that, this research may change teachers' perspective so they can use these strategies in their daily classes based on the effects presented on this research project.

This research project presents a table of contents which includes the statement of the problem, objectives and justification, hypothesis, theoretical framework, research methodology, and research questions which includes the type of research method, techniques and instruments of data collection. It also includes the population, data analyses and interpretation represented by means of a chart and graph. This graphics show the impact and effects that Neuroscience strategies had on students' oral performance. Moreover, conclusions have been included based on main findings as well as recommendations addressed to the Foreign Language Department, authorities of school of Arts and Science, teachers and students who will implement research on this topic. In addition, bibliography, and information retrieved from websites sources have been included so that any researcher that has access to this project can go deeper on this topic. Finally, annexes have been provided to show not only the location but also the strategies

that were applied throughout the Intensive Intermediate English I. These strategies included pictures, rubrics, note taking sample sheets and questionnaires. It is expected that this study can be useful for anyone who has the opportunity to read it and teach English as a Foreign Language.

CHAPTER I.

RESEARCH PROBLEM

1 RESEARCH PROBLEM

1.1 BACKGROUND OF THE PROBLEM

Researchers of this study have collected the programs from Intermediate Intensive English level I corresponding to the years 2017, 2016, 2015, 2014,

2013 and 2012. Researchers reviewed these programs to determine whether neuroscience strategies have been included or not. It was found that no emphasis had been placed on Neuroscience in the teaching process. The results from previous semesters showed that the students´ oral performance needed to improve. The low grade point average in oral evaluations needed to be researched to find out an opportunity to apply Neuroscience strategies. It is very common to find students who blame teachers because of their results, as well as, teachers that blame students by stating that they do not study as they should; however, neuroscience strategies have suggested that teachers should go beyond textbooks, and teach classes more successfully in order to have better results. Therefore, it is suggested that the use of Neuroscience strategies in the class could give an improvement and rise up a better oral performance following the communicative approach that English programs are based on.

1.2 STAMENT OF THE PROBLEM

Stand on the revision of the English Program at the University of El Salvador during 6 l years from now on, Researchers based a hypothesis on the necessity to improve oral performance on students at the bachelor in English Teaching. That

hypothesis has been tested on students at Intensive Intermediate English I, at Foreign Language Department at the University of El Salvador and the results after being exposed to at least 4 neuroscience strategies to improve their oral competence. For instance, Note Taking, Incidental Learning, Active Learning, and Colorful Images. English courses programs should include the above strategies considering the fact that the communicative approach is a main component of current English programs. However, students' oral production has become an area of the English language that most students struggle with. Researchers had the opportunity to observe English classes from Intensive Intermediate English I, group 04 from 1 to 3 pm. They had access to students' grades evaluations of Mid Term Oral Exam (MTOE) and Final Oral Exam (FOE). It was found that students had poor oral production performance; for instance, grade point average regarding speaking tasks and midterm oral evaluations was 6.85. Besides that, researchers were provided with Intensive Intermediate English I programs (see annexes)[1] from years 2012, 2013, 2014, 2015, 2016 and 2017. It was also found that even though the communicative approach has been the basis of the programs, no suggestions or use of neuroscience strategies were visible. Consequently, when planning classes and oral evaluations, neuroscience strategies have been disregarded.

Teaching English as a foreign language involves methods, techniques and strategies. According to Freeman (2008), there are different techniques that can be used to have success in the art of teaching English as a Foreign Language. Also, Harmer (2001) has provided different suggestions that teachers can follow to maximize the teaching process. He has mentioned some techniques on how to talk to students, how to provide instruction before carrying out activities in the classroom. Adding to that, Brown (2015) has provided both principles and approaches to teach English. Books written by these authors have been used as manuals to teach English. However, little emphasis has been placed to students'

[1] See annexes index pag LXXI

brain. On that, Neuroscience, the study of nerve system and the brain, is playing an important role in the teaching process. Huffman (2002), has defined Neuroscience as an interdisciplinary field that studies how biological process especially activity in the brain and nervous system relates to behavior. Besides that, Kennedy (2006), has mentioned that Cognitive Sciences have found out what some educators have always known by intuition regarding language learning. Moreover, the Royal Society Science Policy Center (2011), mentions that Neuroscience, through neuro scientific research, is already contributing to education in the process of teaching a language.

The strategies that Neuroscience considers are many. However, in response to this problem, poor oral production performance, researchers proposed the use of four neuroscience strategies so that students could improve their oral production. For instance, note taking, colorful images, active learning and incidental learning. Note taking, is the process that triggers a more active effect in the brain rather than just listening to the teacher´s explanations only. In order to accomplish the success of this Neuroscience strategy, the teacher had to encourage students to write down on a piece of paper the core of the class in a daily basis. This process was part of the evaluated assignment during semester II-2017. Students did not have to write each word the teacher said. Instead, they had to pay attention to intonation patterns, pitch, and tone of voice of the teacher and get the core of the message that was being transmitted. As a second neuroscience strategy, the use of visual aids with colorful images created an impact on the brain, regardless of students learning styles. This is a very effective way to teach vocabulary, vocabulary size is crucial to fulfil oral tasks. (Treffers, D. & Milton T. 2013) The third strategy was the Incidental learning, this strategy helped students to increase their vocabulary. One way to apply this strategy is by providing students with extra material such as colorful copies of vocabulary, and other visual aids can be posted on the walls with vocabulary and colorful images

related to the units of study during the course. According to that strategy, learning will not only come from teacher's class but also from its surrounding environment. The fourth strategy selected was active learning. According to Eison (2010), active learning strategies involve students in not only carrying out activities but also in thinking about those activities to develop both creativity and critical thinking. These activities included role plays, presentation, and peer teaching. To conclude, the above were the 4 Neuroscience strategies that were put into experiment to discover the impact they had on students' oral performance.

1.3 RATIONALE

Since the teaching process is the basis of this research, there are three main reasons why researchers have considered to study the effects of Neuroscience strategies in the process of teaching English language on students´ oral performance. Firstly, Neuroscience strategies will help students improve their oral performance. The speaking skill is assessed considering criteria such as accuracy, vocabulary, and pronunciation. Fortunately, Neuroscience strategies will allow students to learn vocabulary, pronunciation, and grammar rules more effectively than traditional strategies, such as repetition drills, which is based on behavioral theories and highly used in English classes. Secondly, Neuroscience strategies contribute with the development of communicative competence. The English programs at the Intensive Intermediate English I from Foreign Language Department at University of El Salvador have been planned and designed considering the communicative approach on the methodology. Researchers have reviewed the programs available within the last five years, and the methodology in those periods have been repeated and considered the students´ performance talking less and listening more so teachers become active facilitators of their students´ learning process, which is part of the traditional methods of teaching a second language. On the other hand, neuroscience strategies have enhanced students to enrich their learning process throughout all the mechanisms and

strategies previously tested by science and researchers in the neuroscience field. This statement has been supported by checking and using the programs at the Foreign Language Department corresponding to the Academic years 2017, 2016, 2015, 2014 and 2013. Students need to reach the standards of effective communication in the target language, but is part of the teacher´s performance in the classroom to provide strategies to promote students learning.

Finally, Neuroscience strategies have helped teachers maximize their potential to teach English Language more effectively. By showing and demonstrating the effects of Neuroscience strategies in this study, teachers from the Foreign Language Department at University of El Salvador may start applying these strategies in their classes, which will benefit not only the teaching process but also students learning outcomes. Therefore, this research will help teachers change their perspective now that Neuroscience strategies are backed up by scientific research. All in all, the above are the three main reasons that researchers have considered as the rationale to carry out this research project. Future studies can be carried out on the effects of Neuroscience on some other Language skills.

1.4 SCOPE OF RESEARCH

The four neuroscience strategies were presented and provided to students and to the professor to be applied during 6 weeks of semester II-2017, at the University of El Salvador, during the Intensive Intermediate English I, at the Foreign Language Department (FLD) during the class from Monday to Thursday, Group 04 from 1 to 3 pm. These neuroscience strategies were applied by the teacher, the researchers were observers in the teaching process to evaluate the use of Neuroscience strategies in the class time and the motivation these produce on students' oral performance.

1.5 RESEARCH LIMITATIONS

1.5.1 Financial Limitations

The results were very positive; however, since the researchers only provided part of the original materials used during the semester, those results were not a hundred percent satisfactory due to the budget limitations for buying originals books and workbooks for the thirty-five participant students in Group 4 at the Intensive Intermediate English I, from 1 to 3 pm, at the FLD. The financial resources for this research were provided personally from the researchers involved in this project with a restricted budget of six hundred sixty-eight dollars $668.00 USD[2]

1.5.2 Equipment and Material Limitations.

The students population at the University of El Salvador is mostly young people without a permanent income. Their families assume the responsibility of providing materials, dorms, food and tuition since the beginning of the major. In this research, during the previous observation, only 2% of the students included in this research had their own materials, such as books, workbooks, notebooks or a personal computer. Consequently, there were equipment and material limitations due to the social and economic conditions of most of the students. Open Mind 2 second edition textbook and workbook by Macmillan Published in 2014 was the official material for the Intensive Intermediate English I, in semester II-2017. Every pair of book and workbook has an estimated price of thirty-seven dollars of the United States of America. This plus the other expenses is the cost for using original materials. The lack of this interfere to properly apply the Neuroscience techniques.

[2] See Budget breakdown annex 9

1.6 OBJECTIVES

1.6.1 General objective

To find out how Neuroscience strategies influence students´ oral performance in the Intensive Intermediate English I, Group 04, from 1 to 3 pm, semester II -2017, Foreign Language Department at University of El Salvador.

1.6.2 Specific objectives

To apply by means of the teacher, four neuroscience strategies such as: Note Taking, colorful Visual aids, Incidental Learning, and Active learning to Intensive Intermediate English I students from group 04 1 to 3 pm at the Foreign Language Department at University of El Salvador

To measure how motivated students are in Intensive Intermediate English I group 04, from 1 to 3 pm, Foreign Language Department at the University of El Salvador, by being exposed to the 4 Neuroscience strategies through researcher´s observation and students´ interview at the end of the application.

1.7 HYPOTHESIS

Students from the Intensive Intermediate English I group 04 from 1 to 3 pm at the Foreign Language Department at University of El Salvador will improve their oral performance if they are exposed to four neuroscience strategies during the semester II-2017.

1.8 RESEARCH INDICATORS

1.8.1 Validity

The researchers took time in part of the semester I-2017 to establish rigorous processes that are the hallmark of good research for stablishing the reliability and validity of the research. This has helped the researchers to choose a topic with a high level of interest and enthusiasm. So during this Quasi-experimental study the researchers have rigorously established the veracity, truthfulness or validity and analysis of the information that emerged from the process since the observation throughout the application of the 4 neuroscience strategies applied to the Intensive Intermediate English I, group 4 1 to 3 pm. Therefore, the researchers were able to probe that the research through the process assessed the attributes of credibility and validity based on the attributes of this study: transferability of the techniques to other teaching fields. Dependability because every technique applied during the semester II-2017 were clearly defined and open to scrutiny and in the annexes the researchers evidence that the procedures described actually took place. On top of that, both the midterm and final oral exams were administered by the professor in charge of the class, not by the researchers. Therefore, researchers had no chance to modify the outcome of the research.

1.8.2 Transferability

This research project can be transferred to other Language macro skills such as writing, listening and reading, besides the speaking skill that has been experimented in this document. The transferability of this skill could take into account not only students age but also the different learning styles. As stated by neuroscience studies, it does not matter if students are visual learners of if they identified themselves with other learning styles. Also this research project is

considered transferable to different levels. That is to say, that it can be carried out on students from Basic students, Intermediate and Advance levels. On top of that, this research goes beyond the university level for it can be applied at any other educational institutions such as private schools, English Academies and Public system nationwide. These are some research characteristics that made this paper work transferable.

1.9 MAIN RESEARCH QUESTION.

To what extent does the application of neuroscience strategies improve students´ oral performance from Intensive Intermediate English I, Semester II 2017, from Foreign Language Department at University of El Salvador?

1.10 THE SUBSIDIARY QUESTIONS.

A. Which strategy will be the most commonly applied by the students at Intensive Intermediate English I, during the semester II 2017?

B. To what extent will visual aids with colorful images help students learn vocabulary to improve their oral performance in the Intensive Intermediate English I at the Foreign Language Department at the University of El Salvador?

C. What will be the effects of incidental learning strategy on students´ oral performance in the Intensive Intermediate English I at the Foreign Language Department at the University of El Salvador?

D. Will active learning strategy help students improve their oral performance in the Intensive Intermediate English I at the Foreign Language Department at University of El Salvador?

E. To what extent will students feel more motivated to practice the speaking skill by being exposed to Neuroscience strategies?

CHAPTER II

THEORETICAL FRAMEWORK

2 THEORETICAL FRAMEWORK.

2.1 NEUROSCIENCE BACKGROUND.

Neuroscience strategies in language teaching have become a trending topic nowadays. However, English language teachers are more likely to use traditional methods and techniques to teach English. In order to promote students' improvement and to reach the standard of effective communication in the target language, the neuroscience strategies can help teachers to maximize their potential to teach English more effectively and to improve students' oral production. A review of the literature is presented to get a background for this research project.

Chumsky (2015), has mentioned that human brain plays an important role when learning a language. He has presented some arguments that only human beings are capable of learning a language due to an innate ability. He has called this biological condition "universal grammar".

Brown (2015), provides teachers some advice regarding speaking strategies. For instance, asking for clarification, asking someone to repeat information, using fillers, using paraphrases, etc. Also, Arnold & Fonseca (2004) have offered Garner's Multiple Intelligences theory as a perspective of intelligence. In fact, they have mentioned that this theory has had profound implication for education in general, including learning a language. Therefore, teachers should consider learning styles before applying techniques and strategies. They have acknowledged that colorful visual aids triggers on students an active process in the brain. Using vocabulary in communication tasks helps students move information from short to long term memory. Harmer (2001), has recommended teachers and

students the use of dictionaries in the English classes to look up for definitions of words to learn more vocabulary. However, Neuroscience strategies suggest that these activities re in the short term memory. Nevertheless, information for life is stored in long term memory. Therefore, teaching vocabulary must trigger an impact on students' brain so knowledge can be stored in the long term memory (British Neuroscience Association European Dana Alliance for the Brain, 2014).

Before reviewing the theory behind neuroscience, it is important to provide a definition. Huffman (2002), has defined neuroscience as an interdisciplinary field that studies how biological process, especially activity in the brain and nervous system relates to behavior. When talking about Neuroscience, it is important to consider neurotransmitter. Huffman (2002), has described how neurons communicate one another. This communication takes place at the junction between neurons, known as the synapse, this includes the axon terminal of the sending neuron and the covering membrane of the receiving neuron. When the potential action reaches the knoblike terminals at the axon´s end, it triggers tiny sacs called synaptic vesicles to pend and release a few thousand molecules of chemical substance known as neurotransmitter. This process causes the neurons communication. Even though Neuroscience strategies have become a trending topic in education and teaching languages, Neuroscience strategies studies are not new. According, to Birkauser (1987), Neuroscience had its antecedents in Western Biology, Medicine and Philosophy 3000 B.C., in Egypt. However, for this theoretical framework, a brief history will be provided considering the 19th century till nowadays. According to Meyer (2002), the history of Neuroscience and language learning can be backdated in 1861 when Paul Broca carried out researches about the brain and language. Paul Broca was a neurologist, anatomist, and surgeon. He discovered the area of the brain where language is stored. This is why this area of the brain is called " Broca".

Adding to that, according to Chudler (2016), in 1864, John Hughlings Jackson provided an overview of the impact that the brain had in language learning and the implications of human speech. He wrote about the loss of speech after a brain injury. Chudler (2016), has documented that in 1903, Ivan Pavlov coined the term conditioned reflex. On that, Huffman (2002), has added that in 1906, Ivan Pavlov published his learning research on the salivation response in dogs. Later, it became to be known as classical conditioning. Pavlov provided interesting insights about learning processes, the role of the brain before stimulus.

In 1929, Hans Berger published his findings about the first human electroencephalogram. This has been served as an important tool to get images from the brain. By doing that, researches can observe the areas of the brain that are activated when learning is taking place. Furthermore, in 1932, Edgar Douglas Adrian and Charles S. Sherrington carried out researches about neurons, how they communicate each other and the role in the learning process. Those findings led them to win Nobel Prize for work on function of neurons. Moreover, in 1981, David Hunter Hubel and Torsten N. Wiesel-Nobel work on the importance of system called “The Prize-visual system”. They contributed to neuroscience studies about the impact of visual aids for the learning process. Roger Wolcott Sperry (1981) was awarded by Nobel Prize for its study on functions about brain hemispheres. Later on, in 1990, U.S. President George Bush declares the “decade of the Brain”. In the following years, in 2013, the start of the Human Brain Project was announced. Besides that, in the same year, US President Barack Obama announced the Brain Research through Advancing Innovative Neuro technologies (BRAIN) Initiative.

According to British Neuroscience Association (n.d), learning is subject to memory since the memory has a level of organization. It is stated that there is no single brain area to which all the information students are exposed is stored. On the one hand, working-memory holds information in the mind in active state of consciousness. On the other hand, the passive storehouse of information is called

long-term memory. The last type of memory system in the brain is called episodic memory. It is used to keep track of personal experience. Remembering events is different from learning facts. Events happen only once. For example, to remember what has been eaten in breakfast, (unlikely), or what happened last Christmas (possibly), or all the things that happened on the very first day at school (probably), someone cannot re-run any of these events like an extra lesson in class.

According to The Royal Society Science Policy Centre (2011), Education deals with the process of enhancing learning, and Neuroscience deals with the understanding of processes that occur in mind when learning. Therefore, the teaching process can be not only adjusted but also impacted by science. Also, the environment and biological factors play a very important role by considering individual different learning abilities. Adding to that, by means of Neuroscience, there are certain types of learning that are more rewarding than others. Moreover, Neuroscience has shown that learning skills change the brain and that change can be reverted by stopping to practice that skill. Finally, it is also mentioned that "The emerging field of educational neuroscience presents opportunities as well as challenges for education. It provides means to develop a common language and bridge the gulf between educators, psychologists and Neuroscientists."

Kennedy, (2006) has mentioned that Cognitive Sciences have found out what some educators have always known by intuition regarding language learning. The main point she highlights is that neuroscience has a very positive impact on students' language learning. Therefore, teachers can apply neuroscience strategies to have better outcomes in language teaching. This new information could help teachers understand how the brain functions. Therefore, she confirms that Neuroscience strategies will eventually give rise to comprehensive changes in education, specifically guiding instructional practices followed in the classrooms of

the future. Furthermore, she mentions that Neuroscience reveals the location where the capacity to speak a second language is stored and it is found in different areas of the brain. It may vary depending on when in life a person becomes bilingual.

According to Centre for Education Research and Innovation (2007), by means of neuro-scientific research, it has been found that Neuroscience continues to contributing to education and learning process by helping teachers and institutions to address properly to curriculum designs in education, lifelong learning, forms of learning, etc. After two decades of pioneering work in brain research, the education community has started to realize that “understanding the brain” can help open new pathways to improve educational research, policies and practice. Adding to that, researchers have mentioned that “the brain is biologically primed to acquire language right from the very start of life; the process of language acquisition needs the catalyst of experience. There is an inverse relationship between age and the effectiveness of learning many aspects of language. In general, the younger the age of exposure to the language, the more successful the learning is.”

Arnold & Fonseca (2004) have offered Garner’s Multiple Intelligences theory as a perspective of intelligence. In fact, they noted that this theory has had profound implication for education in general, including learning a language. By considering the Neuroscience, they favor the theory of multiple intelligences. They provide a rationalist model that describes nine different types of intelligences. It has evolved in responses to the need to reach a better perspective how teachers can approach students with different learning styles to provide in this way the learning style tools.

In another research, Hinton, Miyamoto & Della-Chiesa (2008) have developed a study on Brain Research, learning emotion implication for education research, policy and practice. They have found that Experience shapes the brain. It is also stated that there is a connection between two neurons. They describe how these neurons are processed and how they work. They identify the importance of learning by doing. Adding to that, they provide extra information about the importance of identifying learning needs and giving feedback and tailoring both strategies and techniques when teaching. Finally, they describe how emotions are strongly connected to learning. Therefore, there is more efficiency when students are provided with strategies to develop emotional intelligence to the degree of reducing stress and fear. By doing that, the brain receives sensory information from the environment and transforms it into knowledge.

Biedron (2015) has developed a study about Neurology of foreign Language aptitude. She provides a perspective from neuroscience on this issue (aptitude). It has been stated that several studies have been carried out by neurologist about learners' aptitude exposed to a teacher using neuroscience techniques. However, it has been until recent years that Neuroscience has found genuine progress in learning a foreign language. She has mentioned that there is some neurological basis that underlies the language learning.

Richards, (2006) has defined the communicative approach as a set of principles that has its basis on the objectives of the language teaching. For instance, how students learn a language, the types of classroom activities that make the learning process easier, and the roles of both teachers and learners in the classroom. Neuroscience favor the communicatvie approach considering activities that are useful to develop the speaking skill. He has provided some suggestions to develop the oral skills; group discussion, grammar, and report writing.

CHAPTER III.

RESEARCH METHODOLOGY

3 RESEARCH METHODOLOGY.

3.1 TYPE OF RESEARCH

This research project was based on a Quasi-Experimental research design. According to Campbell & Stanley (2001), Quasi-Experimental research designs offer the researchers the opportunity to choose a social setting to schedule data collection and select the target population and the timeframe of measurement. “A Quasi-Experimental research is a conclusive scientific method”. This is because the researchers consider different treatments. Later on, the researchers analyze the effects of those. (Fraenkel, Wallen, & Hyun, 2011. P. 11). Considering that, the researchers selected this design. And at the beginning of the research a pre-diagnostic oral exam[3] was used. (see annexes). This was evaluated by mean of a rubric in order to establish strengths and weaknesses on students speaking performance taking into account their English Level. Then, based on the results obtained through diagnostic test, researchers planned activities where Neuroscience strategies were included as main focus to improve students’ oral performance. After exposing students to Neuroscience strategies for an estimate of 8 weeks, a post oral test[4] was administered to students with the goal of finding out the extent that Neuroscience strategies influenced students’ oral performance.

3.1.1 Population and sample

In order to carry out this research project, there were two important elements that researchers considered. Firstly, selecting the population. Students from Intensive Intermediate English I group 04 1 to 3 pm, at the Foreign Language Department at University of El Salvador were chosen. Therefore, the population is the total of students who had registered that subject. The second factor that was

[3] Annex No. 1, oral exam Rubrics (diagnostic test)
[4] Annex No. 2, oral exam (post oral test)

taken into account was the sample. That is to say, students who registered on the Intensive Intermediate English I, during the semester II-2017 from group 4, 1 - 3 pm. These were the 2 elements researchers considered to define population and sample.

3.1.2 Techniques

The technique that was selected on this Quasi-Experimental Research project was the observation. This observation process was carried out after designing material and planning activities according to Neuroscience strategies. These activities and material were presented to the teacher assigned to the Group, to use them in the Intensive Intermediate English I class, in the afternoon shift from 1:00 to 3:00 pm. Concerning to group 4, during the semester II-2017, researchers observed classes three times a week not only to monitor the class but also to take notes based on the observation while students were exposed to Neuroscience techniques. This is why observation was selected as one of the techniques of this research project.

3.1.3 Instruments

There were 4 main instruments designed on this research project. Firstly, a checklist[5]. This checklist was filled out inside the classroom by following the criteria of checklist designed. Then, results were evaluated to start applying the Neuroscience strategies. The checklist was carried out inside the classroom as the teaching process was taking place. Researchers requested authorization from the teacher in the Intensive Intermediate English I class to be present during the class to observe and fill out the checklist. This observation was necessary to verify that the teacher was using some of the Neuroscience strategies or not. Based on the

[5] Annex No. 3, Observation checklist pre- intervention – Instrument # 1

analysis of the checklist after the observation period with a length of 2 weeks, Neuroscience materials and activities were planned and designed to be delivered in the classroom by means of the teacher.

Another instrument that was used was a diagnostic test[6]. This test was midterm exam based on the units of study from 1 to 6. For those units, no intervention had been carried out. That is to say, students had not been exposed to Neuroscience techniques during that time. It is important to mention that this oral test was designed and carried out by the professor. Then, students' grades[7] were collected. After having collected the grades, intervention process took place. Teacher and his assistant were aware to start the research and to apply it. Neuroscience strategies provided by the researchers. The third instrument[8] applied was a post-test to evaluate the oral performance after 8 weeks of intervention. This test was administered by the professor. No researchers' intervention was possible when carrying out the oral evaluations. According to the neuroscience principles. A rubric was already designed to measure students' oral language competence. Students' grades were analyzed based on their performance before and after the intervention process. The main goal was to discover any impact that neuroscience techniques had on students' oral performance at the end of the intervention period. Finally, a questionnaire was designed to measure students reaction on neuroscience strategies.[9]

[6] Annex 1, oral exam Rubrics Diagnose test – MTOE – Instrument # 2
[7] Annex 6, students grade.
[8] Annex 2, Oral exam post test – FOE – Instrument # 3
[9] Annex 8, Interview Questionnaire. - Instrument # 4

3.1.4 Designing instruments

The checklist was designed with 4 blocks. The first block dealt with interaction teacher-students, students-teacher, and students-students. Items such as the frequency in which students participate in class while Neuro-Science strategies were taught was analyzed. The second block had to do with classroom management criteria. For example, seating arrangement, students talking time vs teachers talking time. The third block was related to class content. Students' reaction was observed by means of the checklist, reactions to colorful images and other Neuroscience strategies presented by the teacher. The goal was to find out whether it created an impact on students' learning process or not. Finally, the fourth block dealt with the teaching process. For instance, the objective of the lesson, teaching methods, eye contact, teacher's tone of voice, students' reaction to the lesson. These rubrics were administered during the two observation´s week. Then, a new rubric was designed to monitor the 4 neuroscience strategies.

Rubrics to evaluate oral performance had been designed already by Language teachers at Foreign Language Department at University of El Salvador. A rubric is a tool to measure students' communicative competence. Researches of this project gathered the results[10] from the teacher based on the evaluations. This provided more reliability and validity to this research project because researchers did not evaluate students but the teacher.

[10] Annex 5, MID-TERM ORAL EXAM RESULTS

3.1.5 Artifacts

Researchers used the following artifacts for this research project; voice recorders, cellphones, cameras, projectors and Laptops, Personal Computers, Printers, scanner. Previous authorization to the teacher assigned to group 4, from 1 to 3 pm, was requested before using the above artifacts.

3.2 RESEARCH STAGES

3.2.1 OBSERVATION PROCESS

The observation process took place in situ at the Foreign Language Department (FLD) at the University of El Salvador, Semester II-2017, in the Intensive Intermediate English I Group 4, from 1-3 pm. The length of this observation period was about 2 weeks, starting at calendar week 5 to 7, the researchers used the calendar and the previous set time table on phase II, to gather the data and provided them with the opportunity to present the information to state the response to the hypothesis, main question and the subsidiary questions. This period started on week 9 to 17[11]. At the end of the period, the researchers collected the information about the activities and the teacher´s role through the observation. To gather the information and run this quasi experimental research, a checklist was the instrument that includes 4 phases that were stated on the observation list. (see annexes) this observation list was prepared to describe activities that included the neuroscience strategies applied on this study. The four phases used by the researchers were interaction, classroom management, content and teaching process.

[11] Annex 6, Researchers´ Time Table of the project (annexes)

3.2.2 Table 1.1, phase I. Interaction.

Observation check list part I [12]

Phase I. INTERACTION.

Blocks	Description of activities and Neuroscience strategies to be observed	yes	no
1.Interaction	1.1 Teacher speaks more than students during the class.		
	1.2 Students speak more than teacher during the class.		
	1.3 There is a balance between students talking time and teacher talking time.		
	1.4 The teacher encourages students to speak.		
	1.5 The teacher assign group/pair work activities.		
	1.6 The teacher assigns student speaking activities such as dialogues including vocabulary taught using Neuroscience strategies.		

The phase I, “Interaction” evaluated the relation between teacher and students in the oral production. The tabulation, graphic and results of this table are explained on Chapter IV.

[12] Annex 3, Observation Checklist (pre-intervention).

3.2.3 Table 1.2, phase II. Classroom Management**.**

Phase II. INTERACTION.

Blocks	Description of activities and Neuroscience strategies to be observed	yes	no
2. Classroom management	2.1 The teacher has designed a special seat arrangement to develop the Neuro Science activities.		
	2.2 The teacher gives students choices for the activities he develops.		
	2.3 There are students with disrupting behavior.		
	2.4 There is rapport between students teacher.		
	2.5 The teacher call students by their names.		
	2.6 The teacher motivates students to participate.		
	2.7 The teacher takes action against disruptive behavior.		

The second phase was about the evaluation of the way the teacher kept the students focused during the class period. The tabulation, graphic and results of this table are explained on Chapter IV.

3.2.4 Table 1.3, phase III Content.

Blocks	Description of activities and Neuroscience strategies to be observed	yes	no
3.content	3.1 The teacher presents images in a colorful way by following the patterns of Neuroscience		
	3.2 the teachers works on the units of the book that has been assigned		
	3.3 the contents is based of the units of study		
	3.4 the teacher uses extra material besides the textbook in the class		
	3.5 The teacher uses technology to deliver the content.		
	3.6 the materials looks attractive to students		
	3.7 students look motivated by the content being delivered.		

The third stage was designed to provide an evaluation of the topics the teacher presented to the class. The tabulation, graphic and results of this table are explained on Chapter IV.

3.2.5 Table 1.4 phase IV, Teaching Process.

Blocks	Description of activities and Neuroscience strategies to be observed	yes	no
4.Teaching process (methodology and use neuroscience strategies)	4.1The teacher uses Total physical Response method		
	4.2The teacher applies Grammar translation method		
	4.3The teacher applies communicate approach		
	4.4The teacher requests students to take notes when explaining core topics of the units. (Neuroscience)		
	4.5The teacher provides clear instructions and active learning activities that promote self-learning (Neuroscience) and team work.		
	4.6The teacher has posted vocabulary related to the unit on a bulletin board inside the classroom for incidental learning. (Neuroscience)		
	4.7The teacher carries out evaluations in the same classroom, oral exams etc. (Neuroscience)		

Finally, the observation list gathered the information about the process of teaching that included methodology and the use of the neuroscience strategies. The tabulation, graphic and results of this table are explained on Chapter IV.

3.1 INTERVENTION PROCESS.

During the intervention process, the researchers took into account the calendar year and the teacher´s time table[13], that included semester II-2017. The units of study were from 1 to 12. At the end of the semester, there was a Final oral exam that researchers analyzed the results on this quasi experimental research designed.

The professor of the Intensive Intermediate English I, group 04 1 to 3 pm., presented three oral examinations: Firstly, the oral task I, applied to the students during the first and second week of September/17.That test result was not included on the observation neither on the intervention process due to the dates both process took place. The Mid-term and the final term oral exam results were taken as part of the research to gather the information. The observation period during the intervention provided to the researchers a wide outlook of the situation encountered in the Intensive Intermediate English I Group 04 1 to 3 pm classroom.

The observation took place by two times a week by 1.5 hours during the class considering the academic calendar of the university and some other activities that occurred during the session time. Before it started the researchers prepared the material that was run in the class. The materials were prepared according to the content of the units scheduled on semester II-2017, in the Intensive Intermediate English I-II-2017.

[13] Schedule of activities.

3.1.1 Table 2.1 phase II, Active Learning.

OBSERVATION DURING THE INTERVENTION PROCESS

Blocks	Description of activities and Neuroscience strategies to be observed	yes	no
2.1. Active learning	2.1.1 The teacher asks student to role play in the classroom. (student perform role-plays)		
	2.1.2 The teacher carries out activities where students practice the oral skill individually		
	2.1.3 The teacher designs speaking activities to have students work in pairs or groups		
	2.1.4 The teacher encourages students to speak in the classroom		
	2.1.6 The teachers designs activities that generate classroom discussions.		
	2.1.7 The teacher assigns activities where student learn and explain other students what they have learned based on grammar topics. (Peer teaching).		

During the second phase of the quasi-experimental research, the neuroscience strategies were provided at the beginning of the unit seven and took 8 weeks of intervention. While the teacher applied them, the researchers started the observation to gather the results. The first out of four Neuroscience strategies used was Active Learning strategy; that involved students in not only carrying out activities but also in thinking about those activities to develop both creativity and critical thinking. These activities included role plays, presentation, and peer teaching.

3.1.2 Table 2.2 phase II, Colorful Images.

OBSERVATION DURING THE INTERVENTION PROCESS

Blocks	Description of activities and Neuroscience strategies to be observed	yes	no
2. Colorful images	2.1 The teacher has designed a special seat arrangement to develop the Neuro Science activities (semicircular seat arrangement suggested for visual aids)		
	2.2 The teacher provides colorful images to teach vocabulary and pronunciation		
	2.3 Visual aids are big enough so all students can see them.		
	2.4 students participate more actively when visual aids are posted		
	2.5 visual aids have a positive impact on students oral production		
	2.6 visual aids are often presented in the classroom.		

The second Neuroscience strategy took into account the importance of the visual area on the teaching process, this research included a second Neuroscience strategy colorful images applied to create an impact on the brain, regardless of students learning styles. The researchers provided to the teacher the units on full color images and new paper for every unit.

3.1.3 Table 2.3 phase II, Taking Notes

OBSERVATION DURING THE INTERVENTION PROCESS

Blocks	Description of activities and Neuroscience strategies to be observed	yes	no
3.Taking notes	3.1 The teacher explains to students about note taking strategies.		
	3.2 The teachers provides students with predesigned sheets to take notes		
	3.3 The majority of students take notes every class.		
	3.4 students participate more when they take notes in the classroom.		
	3.5 students seem motivated when they take notes.		
	3.6 The teacher encourages students to take notes in the classroom.		

Taking Notes is the process that triggers a more active effect in the brain rather than just listening to the teacher´s explanations. In order to accomplish the success of this Neuroscience strategy, the teacher had to encourage students to write down on a piece of paper the core of the class in a daily basis. The researchers provided a taking note format[14] to help the students be aware of taking notes during the class.

[14] Instrument # 5, Taking Note Format.

3.1.4 Table 2.4 phase II, Incidental Learning.

OBSERVATION DURING THE INTERVENTION PROCESS

Blocks	Description of activities and Neuroscience strategies to be observed	yes	no
4. Incidental learning	4.1 The teacher provides extra material in the classroom besides the workbook.		
	4.2 The teachers provide students with new vocabulary.		
	4.3 Students use new vocabulary in the classroom		
	4.4 Students seem more motivated when they are provided with new material and vocabulary related to the units of study.		
	4.5 The teacher provides new material every day.		
	4.6 The teacher provides new material every week (how often) ** see comments.		

The Researchers posted a Bulletin board with colorful images related to the content of the unit of study. This Bulletin was placed inside the classroom next to the main whiteboard for creating the incidental learning on students. Also, it included Grammar structures, idiomatic expressions and vocabulary[15]. (see pictures on annexes).

[15] Pictures, Annex 11, Incidental Learning Strategy.

CHAPTER IV.

RESULTS

4 RESULTS ON THIS QUASI EXPERIMENTAL RESEARCH.

4.1 DATA ANALYSIS.

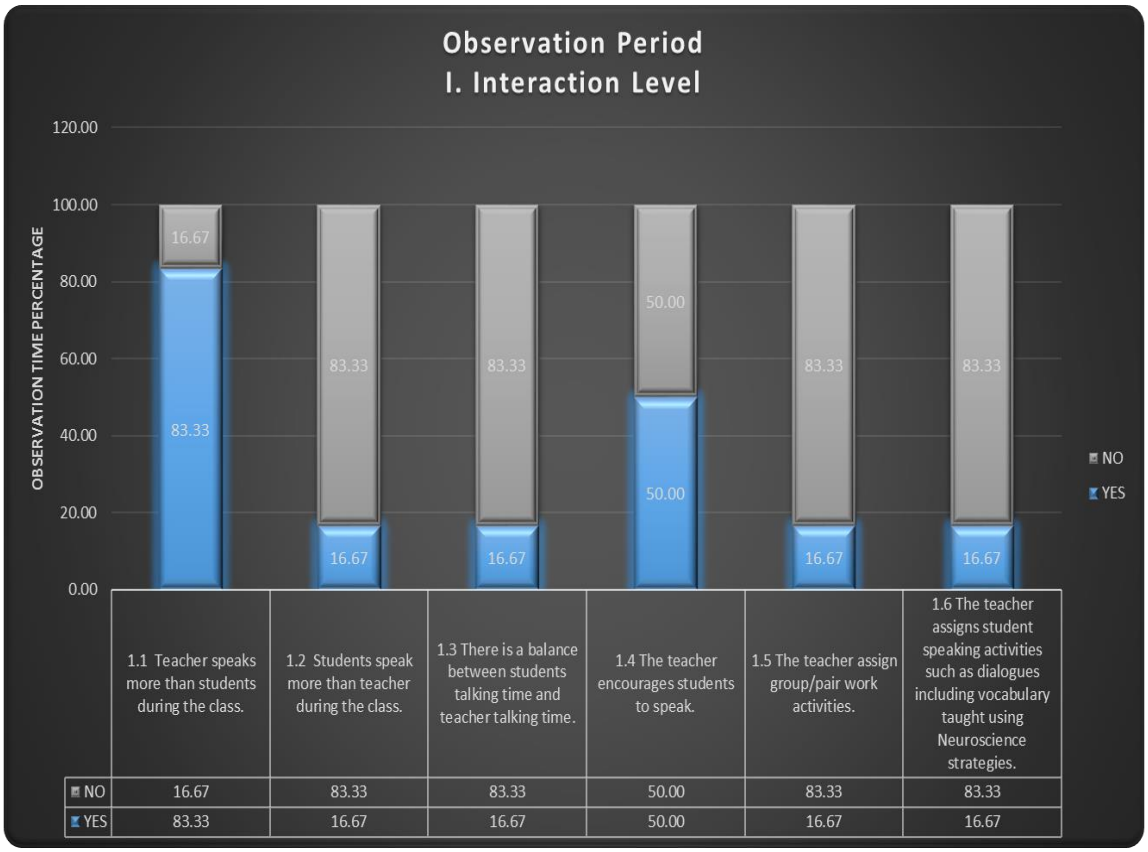
Before applying the neuroscience strategies, researchers observed the class and found out that students needed to improve their oral performance. As the Quasi-experimental research was carried out, there were different obstacles that both researchers and students needed to deal with. For instance, teachers' absenteeism, there was sometimes when the teacher faced health problems, and other issues like meetings, etc. Also, inexperience teacher delivering the class. when the teacher was absent, he assigned a teacher assistant (TA) to deliver the lesson according to the unit. Besides that, it had been scheduled that the TA would teach every week as part of a subject "teaching practice". Therefore, Researchers needed to cope with the challenge of having the TA to apply the active learning strategies since he lacked expertise in the teaching field, in opposite to the Neuroscience strategies recommendations there was someone else teaching. Students did not participate as much as they did the when the teacher taught the class, they recognize the authority and major knowledge of the subject.

Nevertheless, as time passed by and strategies were applied, students started to have a more active role in the class. The class participation increased, little by little, students improved their oral skill. In spite of the difficulties students had as the strategies were being applied, they improved their oral production. This chapter presents different graphs with the analysis. Not only does it include the use of the strategies, but also it contains the stages when neuroscience strategies were applied. By reading each interpretation of the graphs, answers of the hypothesis,main research questions and subsidiary questions will be provided. Based on that analysis, researchers had agreed that the use of Neuroscience strategies have a positive effect on students' performance according to the outcomes after the intervention period.

According to the first stage of this Quasi-experimental study, the researchers applied an observation check list as their primary instrument, in which there were taken into account the four blocks of areas which were evaluated through statements related to Neuroscience. These statements were helpful to evaluate the strategies of interest in this research. During the class period the researchers could observe each of this areas: interaction, classroom management, content and the teaching process. Those were observed and throughout this observation check list[16] and the description of the activities carried out by the teacher. The researchers could analyze the class environment and the methodology executed during the class of Intensive Intermediate English I- Group 4 from 1 to 3 pm at the Foreign Language Department, at the University of El Salvador. Semester II-2017 and represent that observation by the graphs presented in this chapter. Also, there was an instrument that was used by the researchers applied to the students who attended the group 4 from 1 to 3 pm at the semester II-2017, to measure their answer about satisfaction, motivation and usefulness in the use of the four Neuroscience strategies applied on this quasi experimental research.

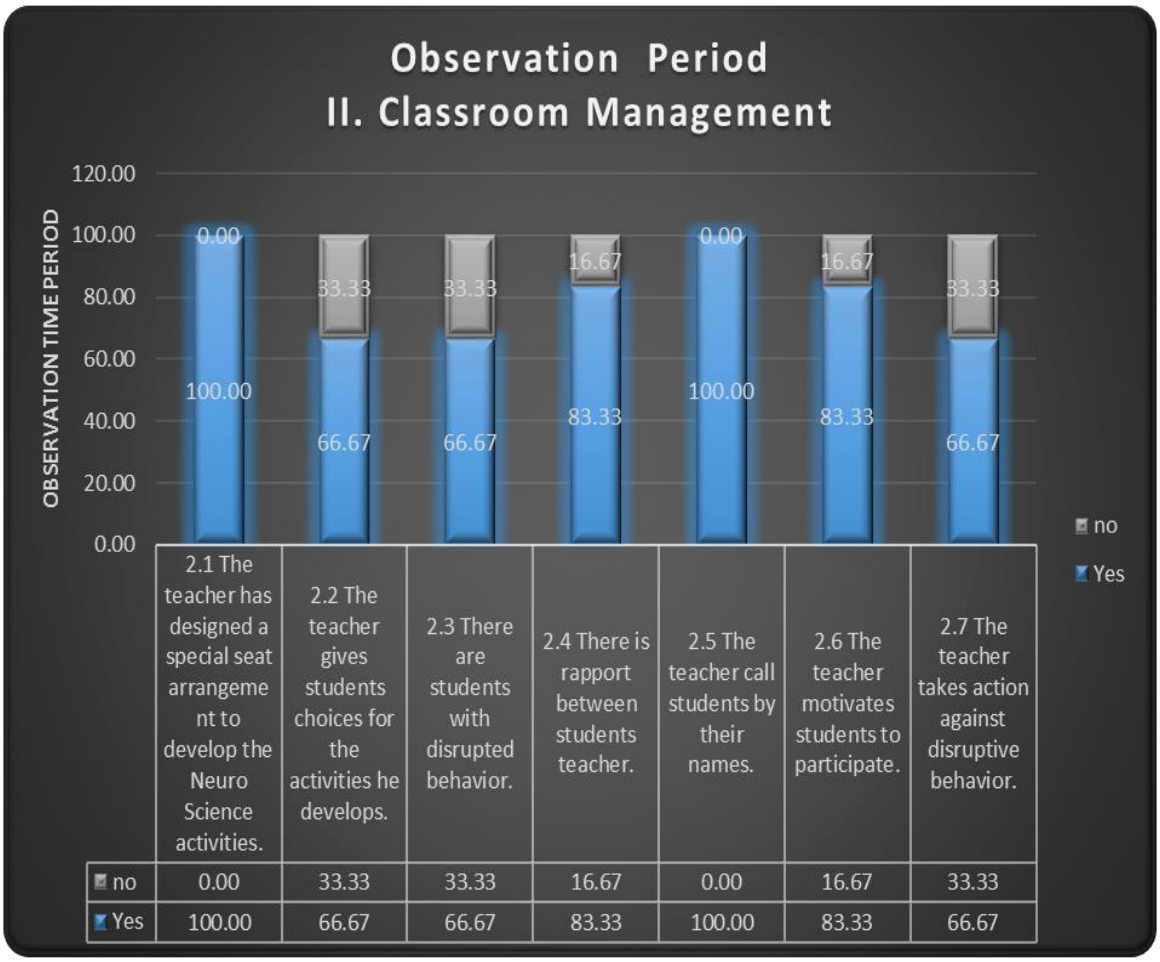
[16] Annex # 3 Observation Check List, Intervention period.

Graph 1.1 – The Observation process period. INTERACTION LEVEL.



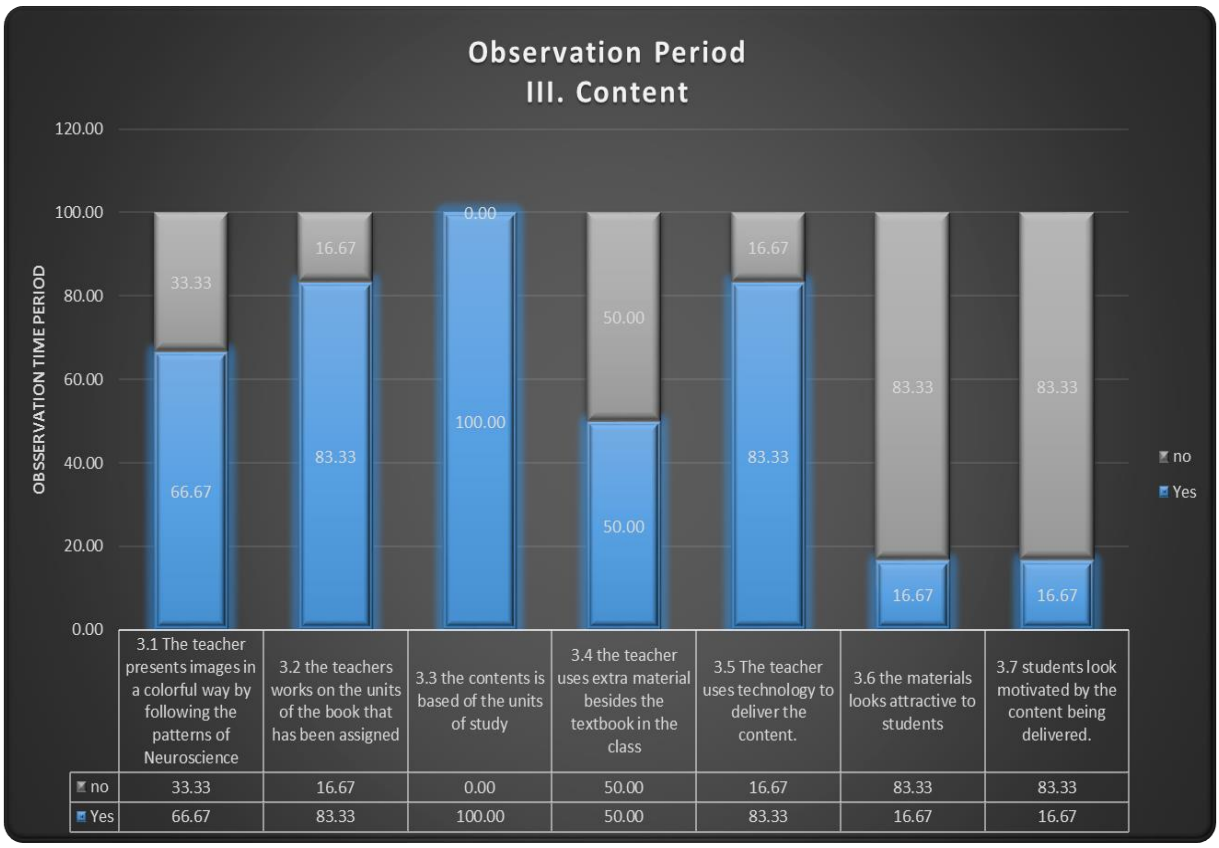
The graph 1.1- corresponds to the observation process period, the first stage of this quasi experimental research that takes two weeks. It shows the percentage of interaction between teacher and students. Demonstrating that the 83% of the time the teacher leads the oral performance and there is no balance between students talking time and teacher talking time. In part of the four sessions that were observed, the 50% of the classes observed, the teacher encouraged students to speak. In spite of the fact that there were group and pair activities assigned for the professor and the 83% of the activities were dialogues using neuroscience strategies, the students did not have the ability to produce oral performance according to the content of the unit or the level of Intermediate students.

Graph 1.2 – The observation process period. CLASSROOM. MANAGEMENT.



Graph 1.2, represents the environment and class management in reference to Neuroscience strategies, that included seat arrangement, students' choice activities the whole environment to teach a class. More than the 65% the classroom environment was positive to encourage students to participate, there was rapport between students and teacher, the teacher designed special arrangement to develop the Neuroscience activities and took actions against disruptive behavior.

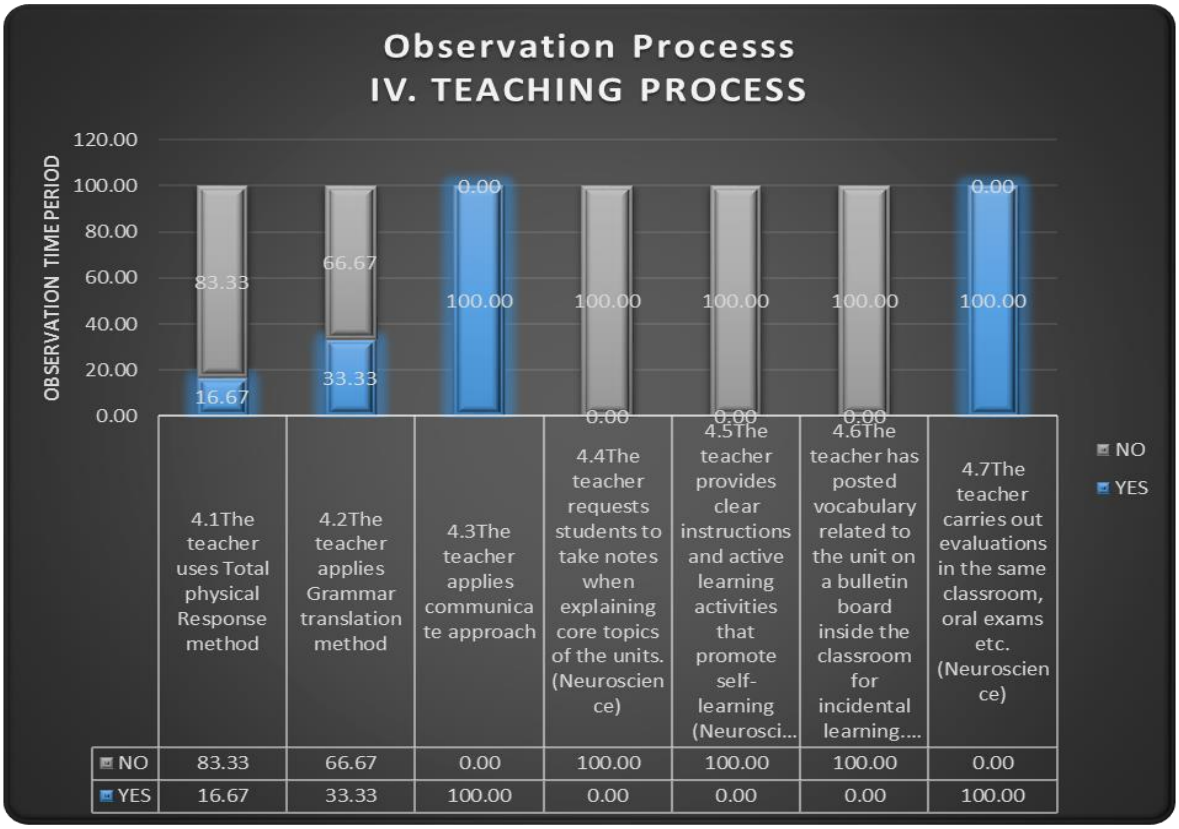
Graph 1.3 – The observation process Period. CONTENT.



	3.1 The teacher presents images in a colorful way by following the patterns of Neuroscience	3.2 the teachers works on the units of the book that has been assigned	3.3 the contents is based of the units of study	3.4 the teacher uses extra material besides the textbook in the class	3.5 The teacher uses technology to deliver the content.	3.6 the materials looks attractive to students	3.7 students look motivated by the content being delivered.
no	33.33	16.67	0.00	50.00	16.67	83.33	83.33
Yes	66.67	83.33	100.00	50.00	83.33	16.67	16.67

The graph 1.3 describes the manner the content was delivered to the students during the observation process, that observation gave the path to prepare the Neuroscience strategies, then the materials could be adequate to the units on study in the next stage (Intervention process). The missing 83% percentage of the extra materials prepared for the teacher gave the outcome to the researchers to present, prepare and provide extra materials containing the neuroscience strategies to run the research project. The materials presented in the class such as copies of extra activities were printed black and white and didn´t look attractive to the students 83% of the time observed in classes showed the opportunity to deliver full color images on this research.

Graph 1.4 – The observation process Period



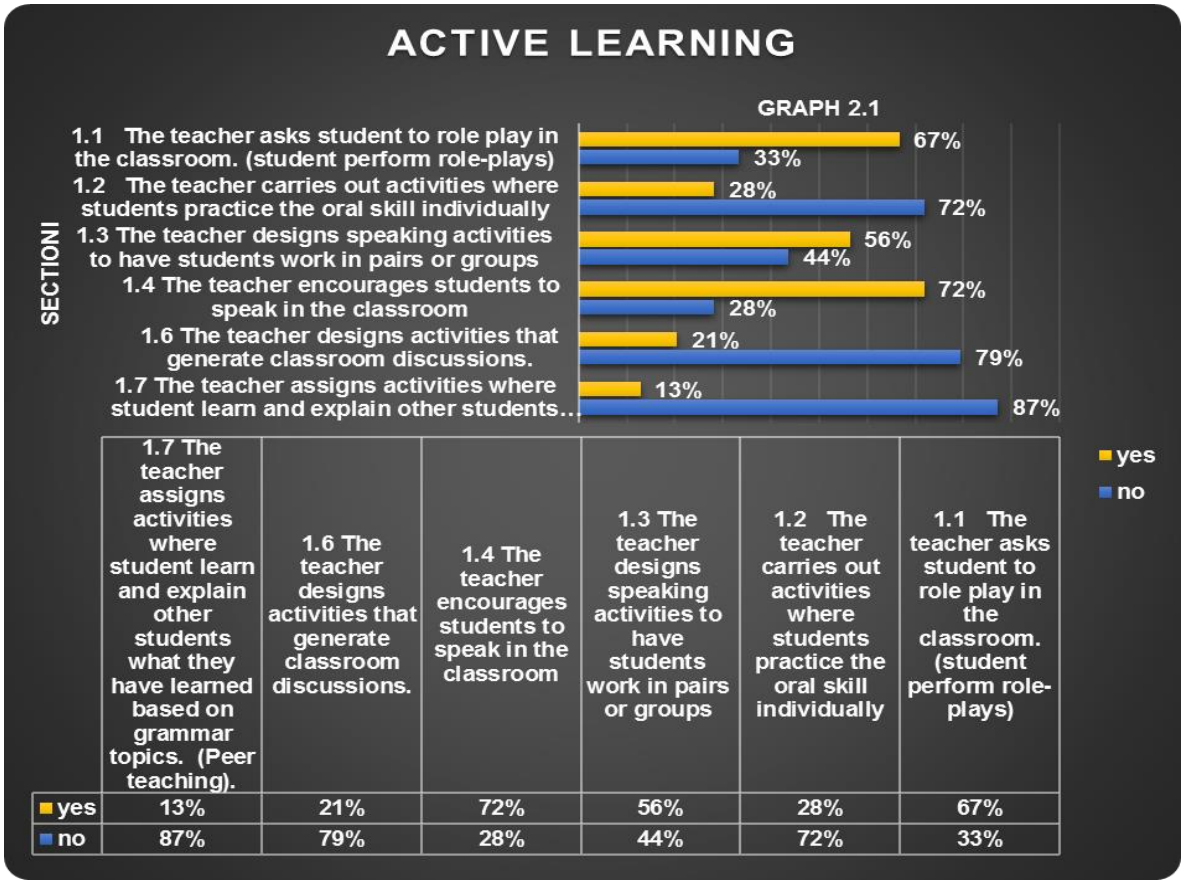
The last part on phase I observation period, is presented on graph 1.4, It refers to the teaching process the most significant items that apply to the teacher intervention to promote Neuroscience during the classes demonstrate a 0% of the use or promotion of three of four neurosciences such as: Taking Note, Incidental Learning and Active Learning. This observation provided to the researchers the opportunity to apply on the next stage the Neuroscience strategies stated on the subsidiaries questions.

4.2 THE INTERVENTION PERIOD.

The intervention period, was the process in which the researchers provided the materials to the teacher in reference the beginning phase II, phase that included the elements to accomplish the four Neuroscience strategies in the way those were presented, e.g.: The first ACTIVE LEARNING, the teacher taught the content of the units seventh to twelfth, in which the student had the opportunity to practice role plays, activities such as presentations about an specific topic of a reading previously given by the teacher as extra material. The researchers observed that most of the activities were carried out by the teacher assistant due to extracurricular activities. According to neuroscience this is not recommended to be done. The second neuroscience strategy was COLORFUL IMAGES. It leans to reach a permanent image on the student´s brain and these could arrive to the long term memory and the colors impact on the learning and teaching process for a long term memory. Thirdly, NOTE TAKING strategy was implemented throughout the teacher and the teacher assistant. The researchers provided a Note Taking format[17] during the twelve weeks of the intervention process. Finally, the INCIDENTAL LEARNING strategy consisted on placed images and vocabulary on a bulletin board provided for the researchers that represent vocabulary and images of every unit. To sum up, the above is a description of the intervention process, specific analysis has been provided on this chapter on the explanation of every graph.

[17] Annexes, Note Taking Strategy.

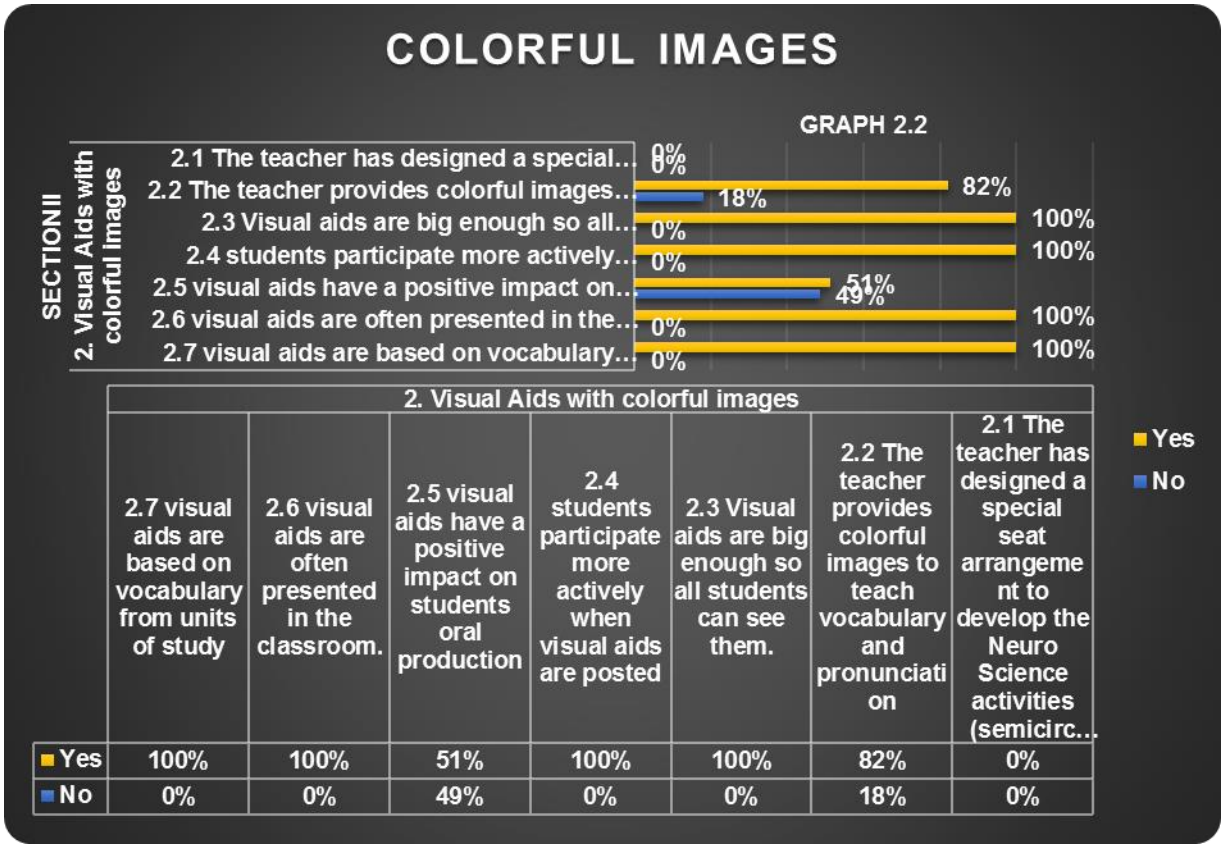
4.2.1 Graph 2.1 Intervention Period. Active Learning Strategy.



Graph 2.1 corresponds to the Intervention period on phase II of this research and represents section 1, strategy No 1, Active Learning. The percentage on this graphic shows the activities that helped students improve the oral skills, such as role plays and other kinds of activities designed by the professor to make students get use to do oral presentations individuals or in group. In spite of the fact that the teacher asked students to role play and encouraged them to speak in the class a 28% percentage of the activities were task such as presentations in groups about a reading book or specific topics that were materials for an advance level and students were not able to explain others about their learning based on

grammar topics. Only the 21% of the activities were designed to generate classroom discussions. Active learning is not active on a 100% of the time and students were not aware of this strategy that involves students in not only carrying out activities but also in thinking about those activities to develop both creativity and critical thinking.

4.2.2 Graph 2.2 Intervention Period. Colorful Images strategy.

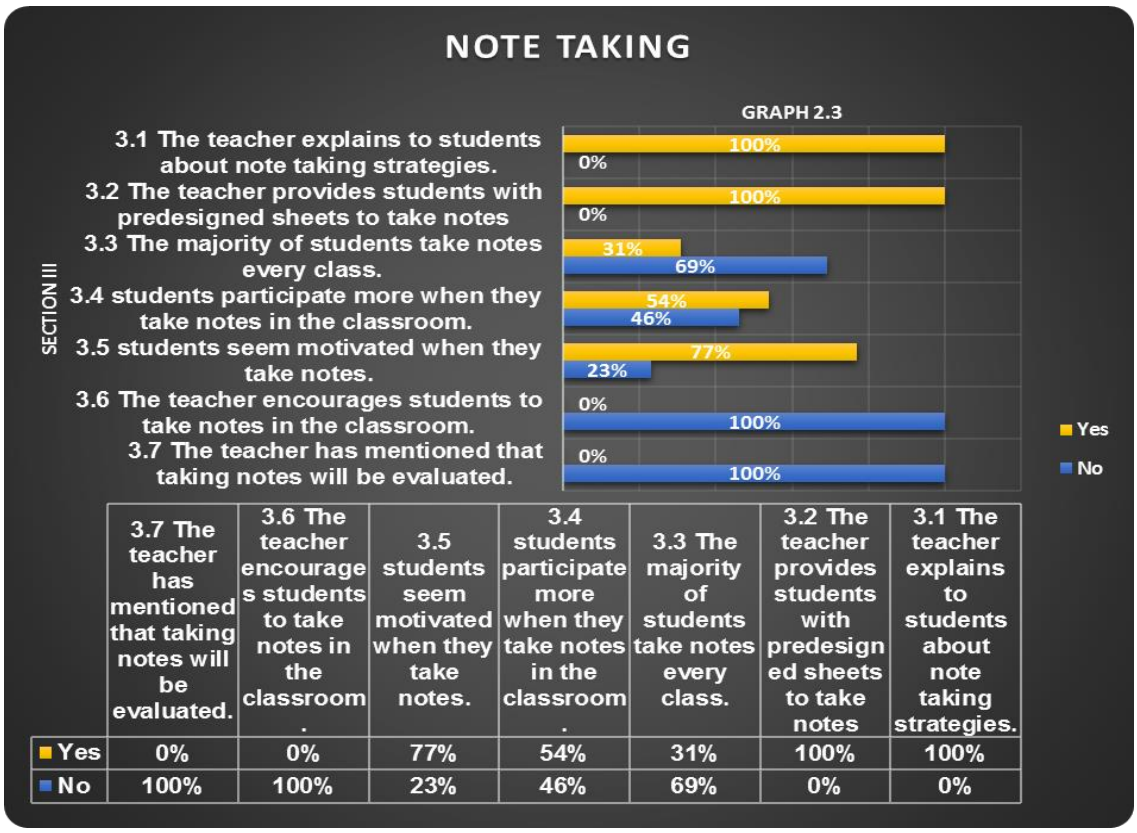


	2. Visual Aids with colorful images						
	2.7 visual aids are based on vocabulary from units of study	2.6 visual aids are often presented in the classroom.	2.5 visual aids have a positive impact on students oral production	2.4 students participate more actively when visual aids are posted	2.3 Visual aids are big enough so all students can see them.	2.2 The teacher provides colorful images to teach vocabulary and pronunciation	2.1 The teacher has designed a special seat arrangement to develop the Neuro Science activities (semicirc...
Yes	100%	100%	51%	100%	100%	82%	0%
No	0%	0%	49%	0%	0%	18%	0%

Graph 2.2 corresponds to the use of colorful images strategy that evokes to make an impact on the student´s brain so they can remember images due to that impact. The researchers stated that 0% of the classes that were observed didn´t have a special seat arrangement while the classes were taught. This was a variable that may have affected the students' attention and interest. A 100% of the visual aids were big enough so all students could see them. When students looked at the visual aids, the 51% had a positive impact on students' oral performance, they started to read and pronounce the labels or name of the pictures in full color. 100% of the new vocabulary was based on the contents of the units and presented in the classroom. It was observed that the students' participation

increased 100% when vocabulary and visual aids in large size and full color are presented. The 82% of the time observed in the classroom were posted images provided by the researchers and every unit in full color printed were provided as an intervention of the researchers.

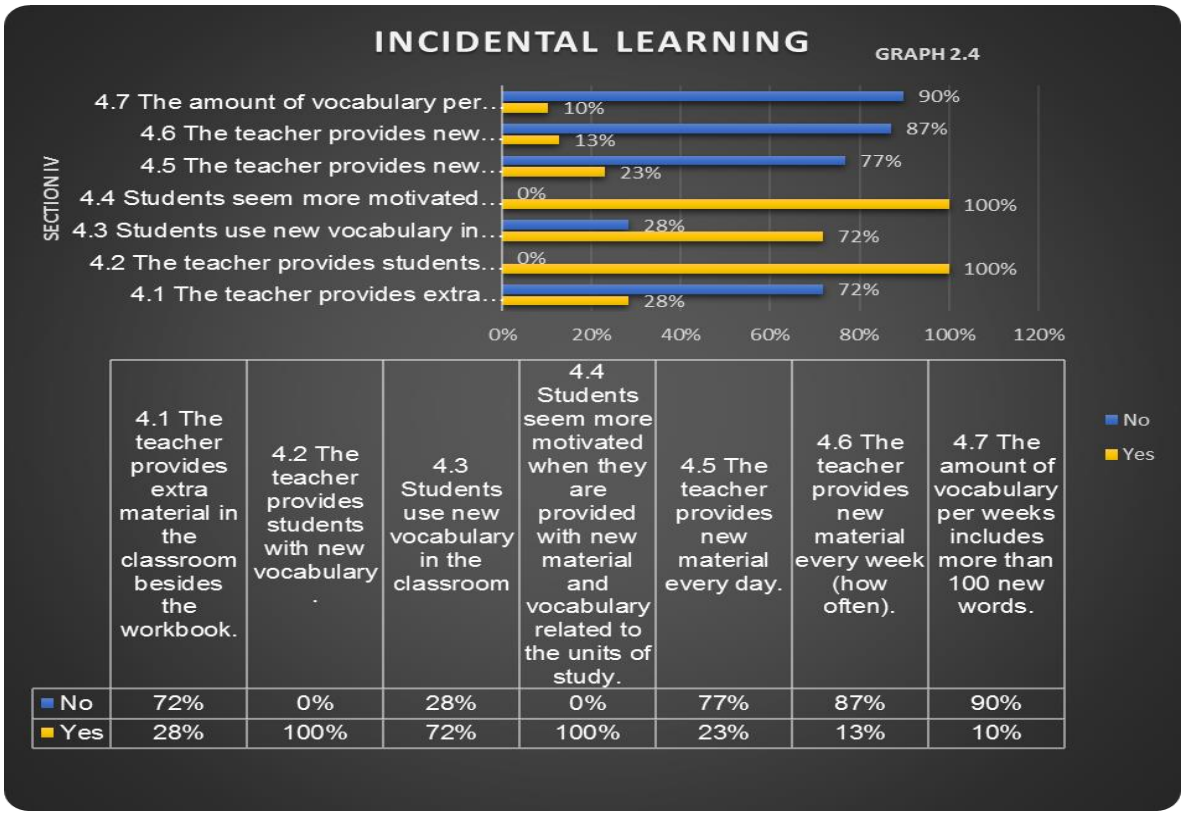
4.2.3 Graph 2.3 Intervention Period. Note Taking Strategy.



	3.7 The teacher has mentioned that taking notes will be evaluated.	3.6 The teacher encourages students to take notes in the classroom.	3.5 students seem motivated when they take notes.	3.4 students participate more when they take notes in the classroom.	3.3 The majority of students take notes every class.	3.2 The teacher provides students with predesigned sheets to take notes	3.1 The teacher explains to students about note taking strategies.
Yes	0%	0%	77%	54%	31%	100%	100%
No	100%	100%	23%	46%	69%	0%	0%

Graph 2.3 shows the percentage during the observation period while the teacher applied the third strategy Note Taking. A 100% of the time observed the teacher explained to the students about that strategy and he provided the predesigned sheet to apply the strategy by encouraging them to take notes at class time by incentivizing providing a grade at the end of the semester. Besides that, only the 31% of the students took that strategy into account. The students´ participation increased in a 54% when they checked out their notes and those seemed 77% motivated more that those who didn´t have their notes. This strategy was very helpful to the students' performance due to the culture they are used to since they were in high school.

4.2.4 Graph 2.4 Intervention Period Incidental Learning.

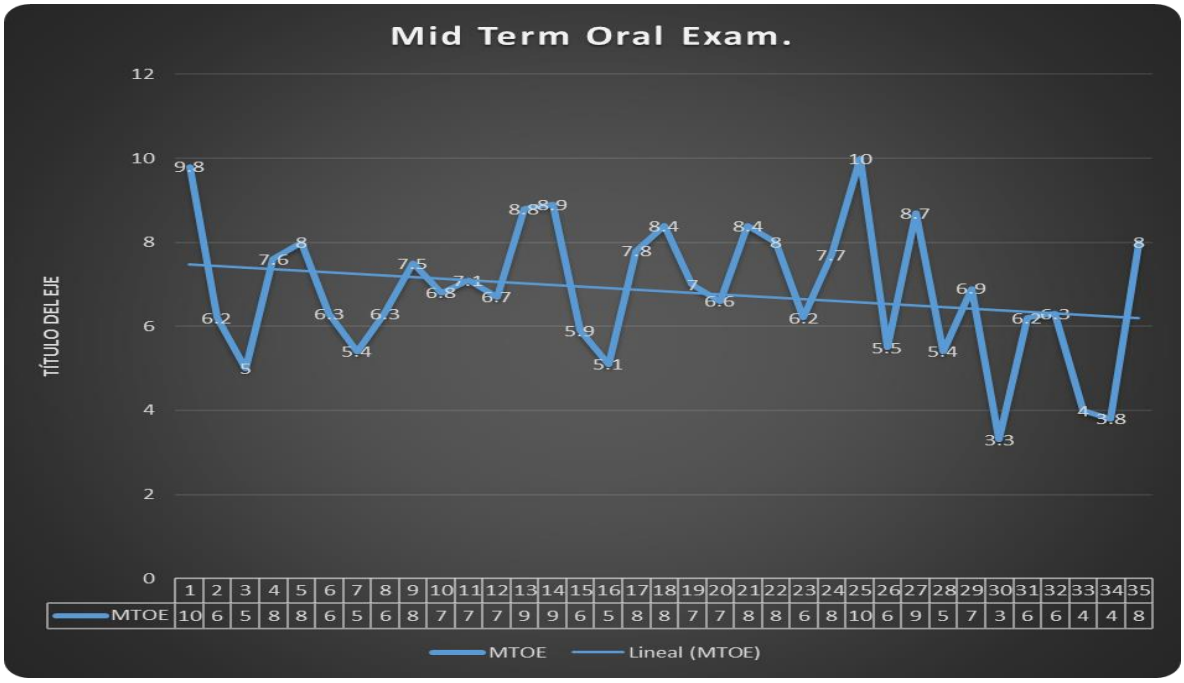


	4.1 The teacher provides extra material in the classroom besides the workbook.	4.2 The teacher provides students with new vocabulary .	4.3 Students use new vocabulary in the classroom	4.4 Students seem more motivated when they are provided with new material and vocabulary related to the units of study.	4.5 The teacher provides new material every day.	4.6 The teacher provides new material every week (how often).	4.7 The amount of vocabulary per weeks includes more than 100 new words.
No	72%	0%	28%	0%	77%	87%	90%
Yes	28%	100%	72%	100%	23%	13%	10%

Graph 2.4 corresponds to the Interaction period observed by the researchers during the application of the four neuroscience strategy on the Incidental Learning phase II. This graph shows that a 100% of the students seemed motivated when they were provided with new material and vocabulary related to the units of study. On this new material, 90% of the times included more than 100 new words the 100% of the material were provided by the teacher and the 72% of the students in the observation group used it on every class. In spite of that the researchers observed that only 23% during the 8 weeks of observation, the teacher provided them with new material. Therefore, they took advantage of that.

4.3 RESULT AND COMPARISON.

4.3.1 Graph 3.1 Results. Mid-term oral exam grades. (MTOE)



This graph 3.1 shows the grades results for the first oral evaluation take into account for this research, is the representation of the values considered the pre-test on this quasi experimental research. Students had an oral evaluation carried out by the teachers. The researchers did not have any intervention on this results; the grades were provided by the teacher of the group 04 from 1 to 3 pm. According to the time table the test included the content from unit 1 to unit 6 and the mid-term oral exam was carried on week number 8 from the semester II-2017. The Intensive Intermediate English I, group 4 from 1 to 3 pm, had an attendance list of thirty-five students, that is the population. The lowest grade was 3.3 and the highest grade was 1 student with 10, considering the range from 0 the lowest to 10 the highest. During this test and previous to that, the students did not have any intervention provided or done by the researchers. The average on the diagnose test oral performance semester II-2017, was 6.85 considering 35 students.

4.3.2 Chart 1.2 The Media Statistic on the Diagnose Test.

i	Absolute Frequency (n_i)	Frequency ($f_i = n_i/N$)	Relative Frequency %
3.3	1	0.0286	3%
3.8	1	0.0286	3%
4	1	0.0286	3%
5	1	0.0286	3%
5.1	1	0.0286	3%
5.4	2	0.0571	6%
5.4			
5.5	1	0.0286	3%
5.9	1	0.0286	3%
6.2	3	0.0857	9%
6.2			
6.2			
6.3	3	0.0857	9%
6.3			
6.3			
6.6	1	0.0286	3%
6.7	1	0.0286	3%
6.8	1	0.0286	3%
6.9	1	0.0286	3%
7	1	0.0286	3%
7.1	1	0.0286	3%
7.5	1	0.0286	3%
7.6	1	0.0286	3%
7.7	1	0.0286	3%
7.8	1	0.0286	3%
8	3	0.0857	9%
8			
8			
8.4	2	0.0571	6%
8.4			
8.7	1	0.0286	3%
8.8	1	0.0286	3%
8.9	1	0.0286	3%
9.8	1	0.0286	3%
10	1	0.0286	3%
Total	**35**	**1.00**	**100%**

The media on the diagnose test is 6.85

$$Media(X) = \overline{x} = \frac{\sum_{i=1}^{N} X_i}{N}$$

4.3.3 Chart 2.2 The Relative Frequency.

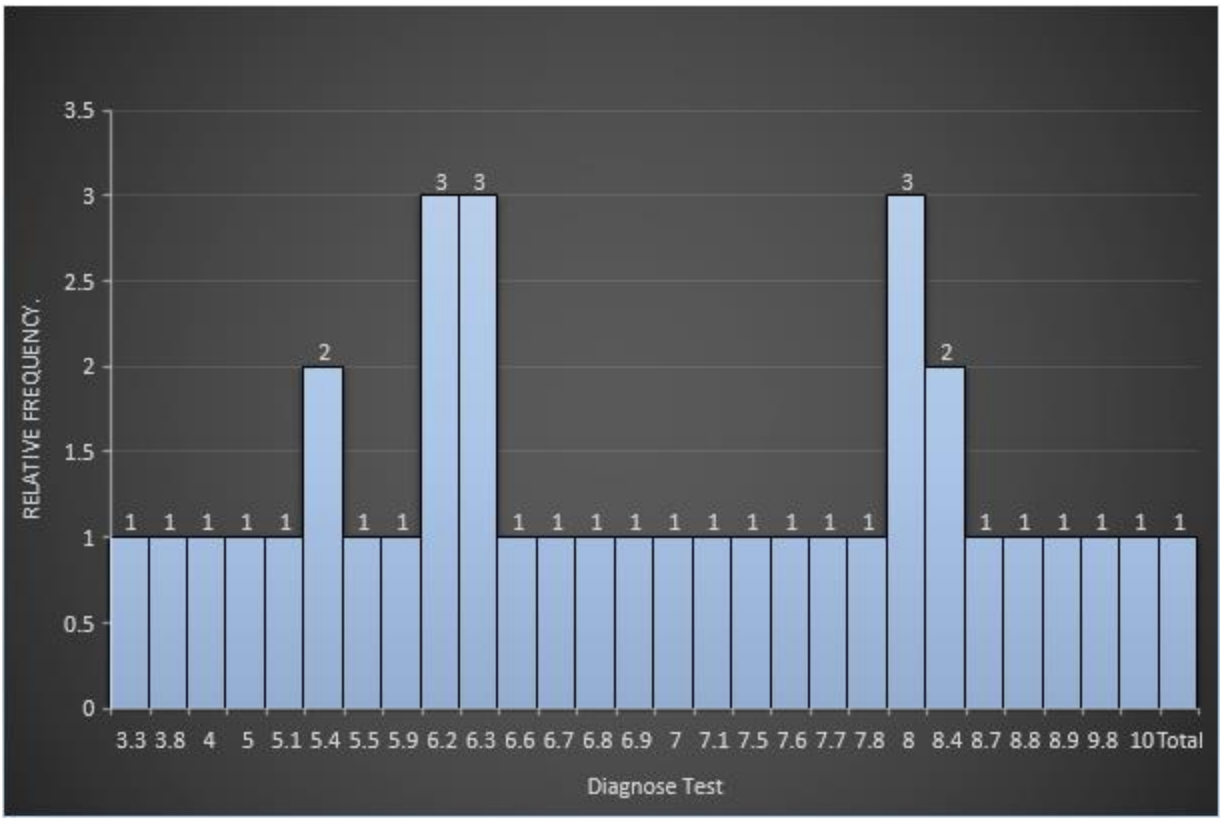
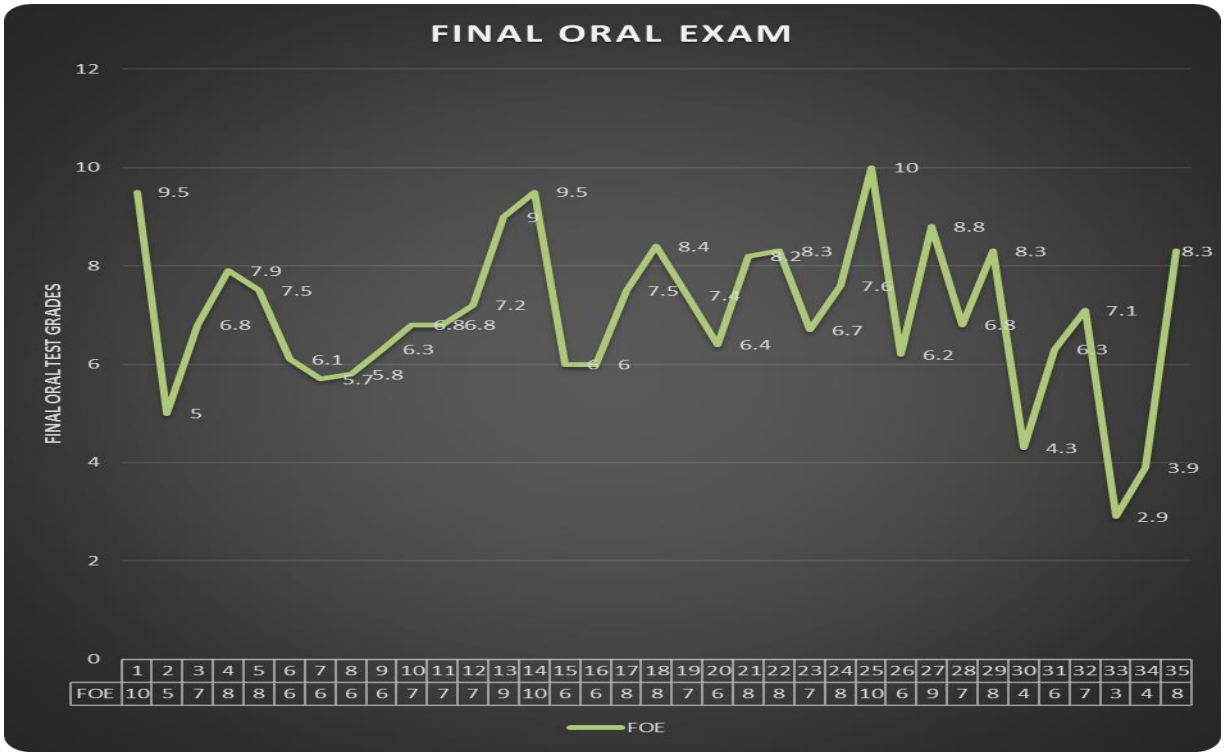


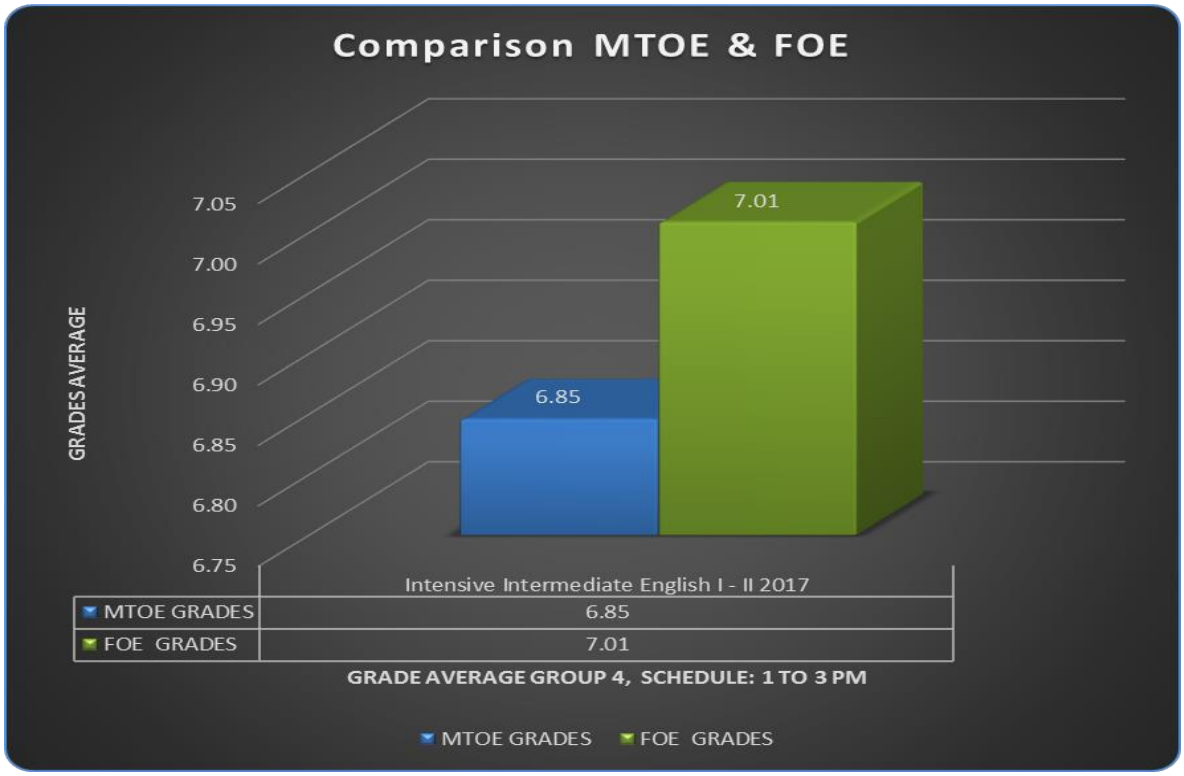
Chart 2.2, shows the results on the oral performance students group 04 from 1 to 3 pm, the Relative Frequency values are 3 and 2. A handful of student improved their grades on the oral test applied by the teacher on semester II-2017. The graph also shows the students oral performance with a grade point average below 7.8. The relative frequency reflects that 9% of the students got 6.2, and another 9% got 6.3. The highest grades frequency was about the 9% with GPA 8. According to the population and results only 7 students got passing score. These results show the necessity of the intervention.

Graph 3.2, Results Final Oral Exam**.**



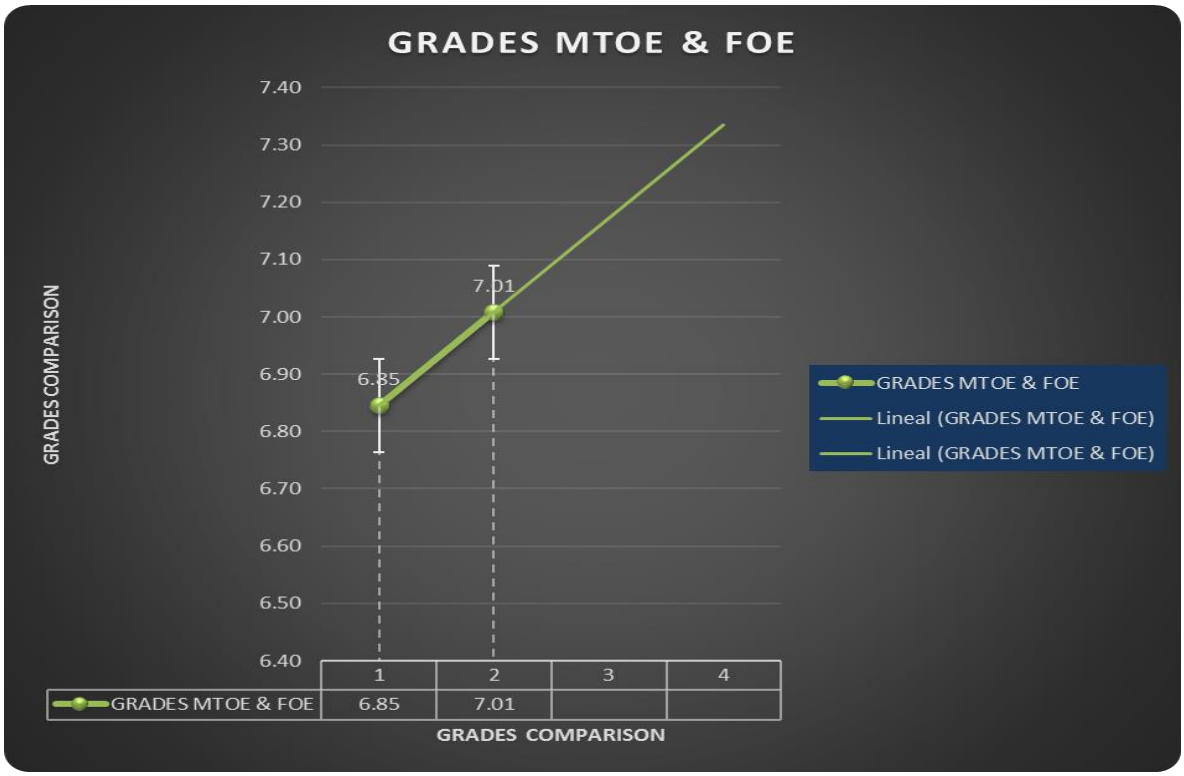
The above graph 3.2 shows students' level performance based on the grades they got during the oral evaluations. For this period of time, students were exposed to the Neuroscience strategies. The Media on this oral test, that was taken as the post test was: 7.01. The tendency shows an increment on the students grades at this time of the semester II-2017. An intervention seemed to be required. The average on the second oral test performance was higher than the average obtained considering the whole group 04- from 1 to 3 pm. For statistical purposes and research study, no names have been included.

4.3.4 Graph 3.3 Results. Comparison Mid-Term and Final Oral Exam.



At the end of the semester II-2017, the quasi experimental research had finished, the results after the application of the Neuroscience strategies has been consolidate and represented on this graph. The end of the semester and the final grades provided by the teacher gave the opportunity to measure the hypothesis Students from Intensive Intermediate English I at the Foreign Language Department at University of El Salvador will improve their oral performance if they are exposed to four neuroscience strategies during the semester II-2017? The above graphic demonstrates a change in the Median between both oral examinations. The improvement percentage was 1.6% in their oral performance according to the teacher evaluations and grade records. Even though, the differences were not high significant between the average, the researchers could prove their hypothesis because the results did not show a decrease.

4.3.5 Graph 3.4, Results. Tendency on grades performance.



Graph 3.4 shows the grades results on Mid-term oral exam and the results on Final Oral test for the controlled group of study. This representation shows the media on students´ oral performance 6.85 media on the pre-test that was provided to the researchers by the teacher of the group 4, from 1 to 3 pm and the media on students´ oral performance 7.01 on the Final oral exam, that was taken as the post –test. The analysis on this graph shows an increment on the students´ grades corresponded to the oral performance. On the graphic a tendency line traced showed an increase tendency on a further time after the application of the Neuroscience Strategy. Researchers were concern for the results, and analyzed some factors that could affect the results, to mention at least six variables, the teacher´s methodology, students background, none self-didactic habits, schedule, absenteeism, lack of intrinsically interest or lack of personal motivation to achieve a

goal. The tendency demonstrated that an experimental research could have a significant measure due to eliminate some variable that affected the hypothesis stablished by researchers on this quasi experimental. To sum up, some of the dependent variables may influence in a negative manner the results. The hypothesis valued a critical behavior due to some constrained aspects and variables observed such as class schedule, students' attitude, fatigue, depression or even lack of personal interest to achieve goals or lack of them. Another factor was, the schedule assigned on group 4 do not contribute by the temperature and light in the class. Plus, the infrastructure at the University of El Salvador does not accomplish the comfortable and seat arrangement for a better understanding and the teaching-learning process during the class.

Average FOE	x_1 = 7.01
Average MTOE	x_1 = 6.85
Standard Deviation FOE	σ_1 = 1.58
Standard Deviation MTOE	σ_1 = 1.56
Students Total	n_1 = 35

$$Ho: \mu_1 = \mu_2$$

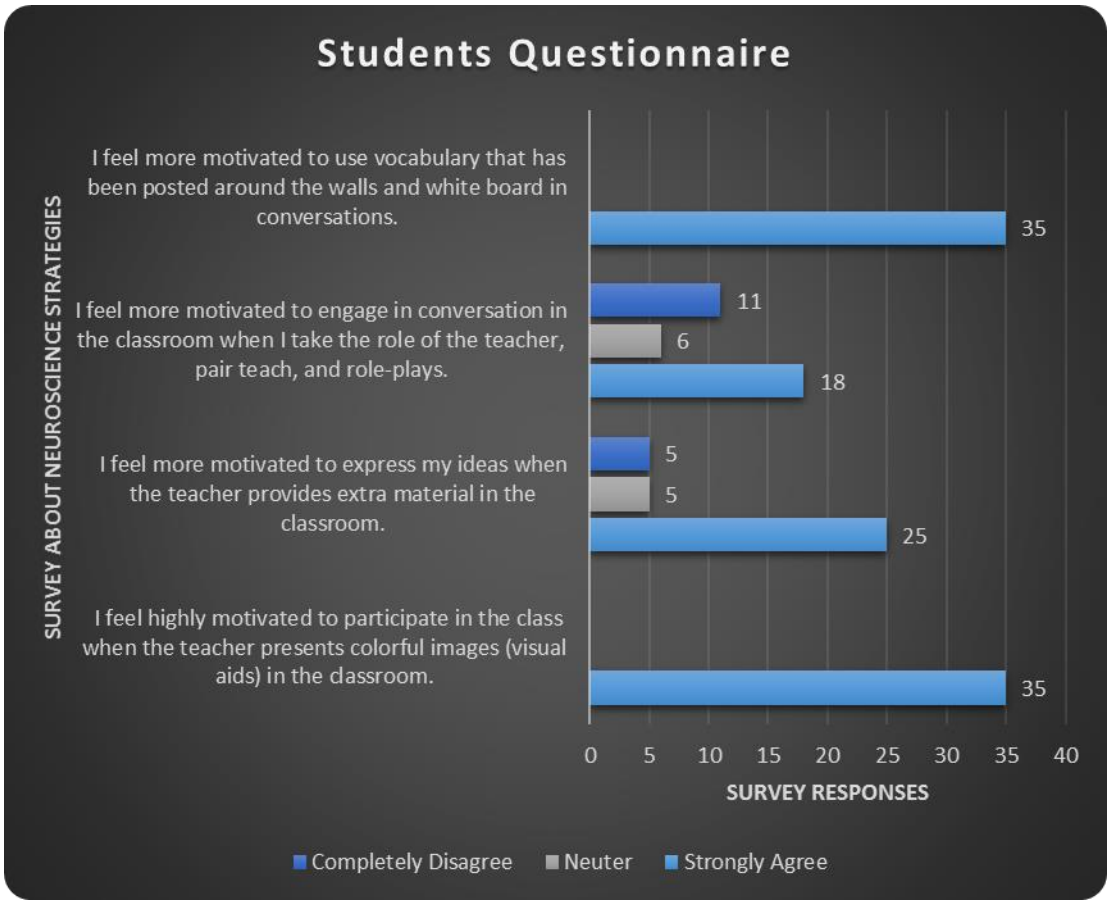
$$H_a: \mu_1 \neq \mu_2$$

$$z = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{{\sigma_1}^2}{n_1} + \frac{{\sigma_2}^2}{n_2}}} = \frac{7.01 - 6.85}{\sqrt{\frac{1.58^2}{35} + \frac{1.56^2}{35}}} = 0.533$$

Critical Value $Z_{\propto}$ = 1.645 (Obtained value on table, Normal Standard Distribution)

H_o Rejected
H_a According to the table there is no significant differences between FOE & MTOE.

Graph 3.5, Students Motivation Measure.



Graph 3.5 students´ motivation was evaluated throughout a survey and the response demonstrated the necessity to continue research on the Neuroscience field. The questions which had the 100% of acceptance had on it the implication on the use of visual aids and the colorful images with labels to learn new vocabulary. It showed that the incidental learning and colorful images strategies seemed to them useful during the semester II-2017.

5 CONCLUSIONS.

After carrying out this Quasi-Experimental Research Project, as stated on the hypothesis, “Students from Intensive Intermediate English I at the Foreign Language Department at University of El Salvador will improve their oral performance if they are exposed to four neuroscience strategies during the semester II-2017”. The hypothesis was accepted due to the numeric result an increase of 16% on the oral performance from diagnose and post-test. According to the observation there is another measure on the students´ performance a positive acceptance on students’ attitude the motivation to use the strategies at the moment of the class, they request the note taking format, the unit of study in full color printed. By the above, the researchers have arrived to the following conclusions, by responding to the subsidiary question, based on the observations results on both throughout the length of the research that included the before and during the intervention process. After gathering the information, properly responses have been provided to the followings main and subsidiary questions:

To what extent does the application of neuroscience strategies improve students´ oral performance from Intensive Intermediate English I, Semester II 2017, from Foreign Language Department at University of El Salvador? The information gathered through the observations periods and pre and post intervention, plus the results on the Mid Term oral exam as the diagnose test and the Final oral test as the post-test measure; present an increment on students’ grade of 0.16 or 16% in the average that was the improvement that can be measure reliably, the grades were provided by the teacher.

Which strategy will be the most commonly useful for the students at Intensive Intermediate English I, during the semester II 2017?[18]

a) According to the outcomes gathered from students interview there were two strategies that students used the most, these were Colorful Images and Incidental Learning.[19]

To what extent will visual aids with colorful images help students learn vocabulary to improve oral performance at the Intensive Intermediate English I at the Foreign Language Department at the University of El Salvador?

b) Based on the results gathered from students interview, the colorful images strategy was one of the most used for them and help them increase their vocabulary size.

What will be the effects of incidental learning strategy on students´ oral performance at the Intensive Intermediate English I at the Foreign Language Department at the University of El Salvador?

c) Based on the researchers' observation and the students interview, the effects of having colorful images and vocabulary posted on a board help students increase their oral performance.

Will active learning strategy help students improve their oral performance at the Intensive Intermediate English I at the Foreign Language Department at University of El Salvador?

d) In agreement with aftereffect of the interviews and observations it was found that by applying activities such as role plays, peer teaching, oral presentations, etc. students oral performance improved.

[18] See Chapter 1, page XX
[19] see graph 5.1

To what extent will students feel more motivated to practice speaking skill by being exposed to Neuroscience strategies?

e) According to the results shown on graph 5.1 the students express they feel highly motivated by been exposed to the four Neuroscience that researchers applied on this research.

To sum up, the researchers have concluded that colorful images triggered such an impact on students´ brain that it maximizes vocabulary learning. As cited on this research, vocabulary is crucial to develop oral competence. Besides that, Incidental learning influences students' oral performance. Students make use of vocabulary that has been posted on the walls by the time they interact either in pair or teamwork. This was clearly observed during the intervention process. Furthermore, note taking strategy helped students remember and reinforce class content. At the same time, students improved their oral performance since they could recall information, based on their notes, not only important vocabulary but also language structures that gave rise to more fluent oral production. Moreover, active learning strategy motivated students to participate actively in the class. Students had the opportunity to role-play, peer teach, exchange information with their peers. These activities promoted more communication. Therefore, students improved their oral performance. Finally, students' motivation increased as they were exposed to the neuroscience strategies presented on this research project. To sum up, researcher concluded that the use of Neuroscience strategies was successful because students´ grade point average increased from the diagnostic test and final oral exam. These strategies may be used to have students improve other macro skills (Listening, reading and writing).

6 RECOMMENDATIONS

Based on the process, limitation and results of this research project in which four neuroscience strategies were applied, the following recommendations have emerged:

Four main recommendations have been provided to authorities, head of the Foreign Language Department and coordinators of the majors. Firstly, it is recommended to have a sort of bulletin board besides the main whiteboard. This extra board can be used to post extra-vocabulary, structures, idiomatic expression, to generate incidental learning. The standard whiteboards are used every day by different teachers. Consequently, it is impossible to use it to post extra material for the unit of study. Also, it is recommended that all English teachers receive a training on what neuroscience strategies are and how to apply them to help students improve their language competences. Finally, it is recommended that neuroscience strategies be applied by teachers and not trainees, meaning teacher assistant. According to neuroscience strategies, the person who applies the strategies has to be the person who evaluates students' oral performance.

There three main recommendations to Foreign Language Department teachers. First of all, to attend to neuroscience strategies trainings. Sometimes, some teachers are reluctant to participate on this type of training or projects. Hence, it is recommended that they attend to these trainings to maximize their potential as teachers. Secondly, it is recommended that teachers put into practice neuroscience strategies. Planning classes using these strategies requires both time and money. In spite of this fact, considering that students' performance improves, teachers should consider these strategies. Active learning activities are strongly recommended to achieve the class goals. Finally, it is recommended that teachers use these strategies to other language skills to test the transferability.

According to the theory behind neuroscience, these can be used on other macro skill, listening, speaking writing reading, even micro skills, grammar and vocabulary. Concluding, these are the recommendation that researchers provide to FLD teachers training to know about this type of strategies.

Researchers have also provided some recommendations to students. For instance, to buy the original material if possible, not photocopies but colorful material. If not, they can look for digital copies of the book to print them in colorful images or to save them in electronic format to be able to study on electronic devices such as smart cellphones, tablets, personal computers, etc. Also, it is recommended that students can put into practice the neuroscience strategies by applying note taking strategies and incidental learning in the classroom. Finally, students should attend to a neuroscience course to learn about that and how to apply it when they become teachers.

Finally, the recommendations to Futures Researchers interested on studying neuroscience. They can apply them since the very beginning of the English course to get better results. To sum up, students need to know about neuroscience strategies, that is why the above recommendations have been provided. This research turns into an opportunity to put those strategies into practice.

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8 ANNEXES

Annex 1 Diagnose Test Rubric

Intensive Intermediate English I- II-2017 **Score_____**

School of Arts and Sciences **Student´s Name**_____

University of El Salvador Foreign Language Department School of Arts and Sciences

CATEGORY	1	2	3	4	Score
Task Completion	Minimal completion of the task; content frequently undeveloped and/or somewhat repetitive.	Partial completion of the task; content somewhat adequate and mostly appropriate; basic ideas expressed but with very little elaboration and detail.	Completion of the task ; content appropriate; ideas adequately developed with some elaboration and detail.	Superior completion of the task; content rich; ideas with elaboration and detail.	X4
Comprehensibility	Content barely comprehensible , requiring frequent interpretation; pronunciation may frequently interfere with communication.	Content mostly comprehensible, requiring interpretation; pronunciation; pronunciation may occasionally interfere with communication.	Content comprehensible, requiring minimal interpretation; pronunciation does not occasionally interfere with communication.	Content readily comprehensible requiring no interpretation; pronunciation enhances communication.	X3
Level of Discourse	Predominant of complete yet repetitive sentences; no or almost no cohesion devices.	Use of complete sentences, some repetitive; few cohesion devices.	Emerging variety of complete sentences; some cohesion devices.	Variety of complete sentences and of cohesion devices.	X4
Fluency	Speech halting and uneven with long pauses or incomplete thoughts; little sustained speech.	Speech choppy and or slow with frequent pauses; few or no incomplete thoughts; sustained speech.	Speech sustained most of the time; some hesitation but manages to continue and complete thoughts.	Speech sustained throughout with few pauses or stumbling.	X4
Vocabulary	Inadequate and/or inaccurate use of vocabulary.	Somewhat inadequate and/or inaccurate use of vocabulary and too basic for this level.	Adequate and accurate use of vocabulary for this level.	Rich use of vocabulary with some idiomatic expressions.	X5
Accuracy	A lot of grammatical errors present.	Some grammatical errors present.	A few grammatical errors present.	Almost no grammatical errors present.	X5
Final Score					

Annex 2, Oral Exam Post Test Rubric

School of Arts and Sciences **Student´s Name**_____

University of El Salvador Foreign Language Department School of Arts and Sciences

CATEGORY	1	2	3	4	Score
Task Completion	Minimal completion of the task; content frequently undeveloped and/or somewhat repetitive.	Partial completion of the task; content somewhat adequate and mostly appropriate; basic ideas expressed but with very little elaboration and detail.	Completion of the task ; content appropriate; ideas adequately developed with some elaboration and detail.	Superior completion of the task; content rich; ideas with elaboration and detail.	X4
Comprehensibility	Content barely comprehensible , requiring frequent interpretation; pronunciation may frequently interfere with communication.	Content mostly comprehensible, requiring interpretation; pronunciation; pronunciation may occasionally interfere with communication.	Content comprehensible, requiring minimal interpretation; pronunciation does not occasionally interfere with communication.	Content readily comprehensible requiring no interpretation; pronunciation enhances communication.	X3
Level of Discourse	Predominant of complete yet repetitive sentences; no or almost no cohesion devices.	Use of complete sentences, some repetitive; few cohesion devices.	Emerging variety of complete sentences; some cohesion devices.	Variety of complete sentences and of cohesion devices.	X4
Fluency	Speech halting and uneven with long pauses or incomplete thoughts; little sustained speech.	Speech choppy and or slow with frequent pauses; few or no incomplete thoughts; sustained speech.	Speech sustained most of the time; some hesitation but manages to continue and complete thoughts.	Speech sustained throughout with few pauses or stumbling.	X4
Vocabulary	Inadequate and/or inaccurate use of vocabulary.	Somewhat inadequate and/or inaccurate use of vocabulary and too basic for this level.	Adequate and accurate use of vocabulary for this level.	Rich use of vocabulary with some idiomatic expressions.	X5
Accuracy	A lot of grammatical errors present.	Some grammatical errors present.	A few grammatical errors present.	Almost no grammatical errors present.	X5
Final Score					

Annex 3 Observation Check List pre-intervention.
Check list for classroom observation. INSTRUMENT # 1
Class: Intermediate English I **Date:** _____
BA Misael Jonathan Hernández; BBA Dinora Isabel Arévalo de Cruz
Objective: to observe students behavior in classroom while the teacher delivers his class (using Neuroscience strategies.)

Blocks	Description of activities and Neuroscience strategies to be observed	yes	no
1.Interaction	1.3 Teacher speaks more than students during the class.		
	1.4 Students speak more than teacher during the class.		
	1.3 There is a balance between students talking time and teacher talking time.		
	1.4 The teacher encourages students to speak.		
	1.6 The teacher assign group/pair work activities.		
	1.7 The teacher assigns student speaking activities Such as dialogues including vocabulary taught using Neuroscience strategies.		
2. Classroom management	2.1 The teacher has designed a special seat arrangement to develop the Neuro Science activities.		
	2.2 The teacher gives students choices for the activities he develops.		
	2.3 There are students with disrupted behavior.		
	2.4 There is rapport between students teacher.		
	2.5 The teacher call students by their names.		
	2.6 The teacher motivates students to participate.		
	2.7 The teacher takes action against disruptive behavior.		
3.content	3.1 The teacher presents images in a colorful way by following the patterns of Neuroscience		
	3.2 the teacher works on the units of the book that has been assigned		
	3.3 the contents is based of the units of study		
	3.4 the teacher uses extra material besides the textbook in the class		
	3.5 The teacher uses technology to deliver the content.		
	3.6 the materials looks attractive to students		
	3.7 students look motivated by the content being delivered.		
4.Teaching process (methodology and use neuroscience strategies)	4.1The teacher uses Total physical Response method		
	4.2The teacher applies Grammar translation method		
	4.3The teacher applies communicate approach		
	4.4The teacher requests students to take notes when explaining core topics of the units. (Neuroscience)		
	4.5The teacher provides clear instructions and active learning activities that promote self-learning (Neuroscience) and team work.		
	4.6The teacher has posted vocabulary related to the unit on a bulletin board inside the classroom for incidental learning. (Neuroscience)		
	4.7The teacher carries out evaluations in the same classroom, oral exams etc. (Neuroscience)		

Comments

_____
_____
_____ .

Annex 4. Check list for classroom observation while intervention process.
Class: Intensive Intermediate English I – Group 4, 1-3 pm
Observers: **BBA Dinora de Cruz and**
BA Misael Jonathan Hernández **Date:**_____
Objective: to observe students behavior in classroom while the teacher delivers his class using Neuroscience strategies.

Blocks	Description of activities and Neuroscience strategies to be observed	yes	no
1.Active learning	1.1 The teacher asks student to role play in the classroom. (student perform role-plays)		
	1.2 The teacher carries out activities where students practice the oral skill individually		
	1.3 The teacher designs speaking activities to have students work in pairs or groups		
	1.4 The teacher encourages students to speak in the classroom		
	1.6 The teachers designs activities that generate classroom discussions.		
	1.7 The teacher assigns activities where student learn and explain other students what they have learned based on grammar topics. (Peer teaching).		
2. colorful images	2.1 The teacher has designed a special seat arrangement to develop the Neuro Science activities (semicircular seat arrangement suggested for visual aids)		
	2.2 The teacher provides colorful images to teach vocabulary and pronunciation		
	2.3 Visual aids are big enough so all students can see them.		
	2.4 students participate more actively when visual aids are posted		
	2.5 visual aids have a positive impact on students oral production		
	2.6 visual aids are often presented in the classroom.		
	2.7 visual aids are based on vocabulary from units of study		
3.Taking notes	3.1 The teacher explains to students about note taking strategies.		
	3.2 The teachers provides students with predesigned sheets to take notes		
	3.3 The majority of students take notes every class.		
	3.4 students participate more when they take notes in the classroom.		
	3.5 students seem motivated when they take notes.		
	3.6 The teacher encourages students to take notes in the classroom.		
	3.7 The teacher has mentioned that taking notes will be evaluated.		
4. Incidental learning	4.1 The teacher provides extra material in the classroom besides the workbook.		
	4.2 The teachers provides students with new vocabulary.		
	4.3 Students use new vocabulary in the classroom		
	4.4 Students seem more motivated when they are provided with new material and vocabulary related to the units of study.		
	4.5 The teacher provides new material every day.		
	4.6 The teacher provides new material every week (how often) ** see comments.		
	4.7 The amount of vocabulary per weeks includes more than 100 new words.		

Comments

_____
_____
_____ .

Annex 5 Note Taking format.
Instrument # 5

University of El Salvador
School of Arts and Science
Foreign Language Department
Intermediate English I

Student´s Name:_____
Date:_____
Teacher´s Name:_____.

KEY WORDS	DEFINITIONS	NOTES/ GRAPHICS/
1._____	1._____	
2._____	2._____	
3._____	3._____	
4._____	4._____	
5._____	5._____	
6._____	6._____	
7._____	7._____	
8._____	8._____	
9._____	9._____	
10._____	10._____	
11._____	11._____	

SUMMARY OF THE CLASS:

EXERCISES
Using the new vocabulary acquired write sentences using the tenses that you have been studying in classes.

1._____

2._____

Format retreived from Freeology.com Free school stuff and adapted by BBA. Dinora de Cruz/BA Misael Jonathan Hernández

Annex 6, Mid Term Oral Exam & Final Oral Exam Grades.

Student´s Number	***MTOE***	**FOE**
1	9.8	9.5
2	6.2	5
3	5	6.8
4	7.6	7.9
5	8	7.5
6	6.3	6.1
7	5.4	5.7
8	6.3	5.8
9	7.5	6.3
10	6.8	6.8
11	7.1	6.8
12	6.7	7.2
13	8.8	9
14	8.9	9.5
15	5.9	6
16	5.1	6
17	7.8	7.5
18	8.4	8.4
19	7	7.4
20	6.6	6.4
21	8.4	8.2
22	8	8.3
23	6.2	6.7
24	7.7	7.6
25	10	10
26	5.5	6.2
27	8.7	8.8
28	5.4	6.8
29	6.9	8.3
30	3.3	4.3
31	6.2	6.3
32	6.3	7.1
33	4	2.9
34	3.8	3.9
35	8	8.3

The Diagnose Test (MTOE), GPA: 6.85

The Post Test (FOE), GPA 7.01

Annex 7, Interview Questionnaire**.**

UNIVERSITY OF EL SALVADOR
SCHOOL OF ARTS AND SCIENCES
SCHOOL OF POSTGRADUATE STUDIES

RESEARCH PROJECT.
INSTRUMENT # 4

THE EFFECTS OF NEUROSCIENCE STRATEGIES IN THE TEACHING PROCESS OF ENGLISH LANGUAGE ON STUDENTS ORAL PERFORMANCE FROM INTERMEDIATE INTESIVE I SEMESTER II 2017 AT FOREIGN LANGUAGE DEPARTMENT AT UNIVERSITY OF EL SALVADOR.

Objective: to measure the level of motivation from Intensive Intermediate I students toward the neuroscience strategies that were implemented during semester II-2017.

Student´s ID_____ **Date:**_____

Instruction: Please read carefully and choose the option that best describes whether you were motivated or not to participate in speaking activities when neuroscience strategies were applied. Check the letter A) B) or C) as it correspond in the chart

POSSIBLE ANSWERS

A) Strongly agree
B) Neuter
C) Completely Disagree

	Question	A	B	C
1	I feel highly motivated to participate in the class when the teacher presents colorful images (visual aids) in the classroom.			
2	I feel more motivated to express my ideas when the teacher provides extra material in the classroom.			
3	I feel more motivated to engage in conversation in the classroom when I take the role of the teacher, pair teach, and role-plays.			
4	I feel more motivated to use vocabulary that has been posted around the walls and white board in conversations.			

Researchers: BBA. Dinora Arévalo De Cruz
BA. Misael Jonathan Hernández Vaquerano

Annex 8 TIME TABLE of the Project.

ACTIVITIES	MONTHS																														
	1				2				3				4				5				6				7				8-12			18
	July-17				August-17				September-17				October-17				November-17				December-17				January-18				Feb-18			May - Oct. 18
	WEEKS																														
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	1
Phase I																																
Meetings with assessor to request the acceptance.																																
Meetings with the Intensive Intermediate English I professor																																
Planning the intervention during semester II-2017																																
Meetings to prepare the Neuroscience strategies.																																
Programs and Bibliography Revision to prepare the project.																																
Planning the observations periods and documents the 4 strategies according to the unit studied.																																
Semester I -2017 Project Revision																																
Designing the Neuroscience intervention and planning																																
Project presentation final version.																																
Project approval																																
Phase II																																
Observation classes previous to the intervention																																
Applying the 4 neuroscience strategies during every unit.																																
Observation of classes after providing the Neuroscience Strategies																																
Data collection.																																
Thesis revision and corrections.																																
Corrections and final version. Project approval phase.																																
Phase III																																
Phase III Starting																																
Due registration and final graduations process Observations and corrections to the document																																
Final version delivery.																																

Annex 9 BUDGET

THE EFFECTS OF NEUROSCIENCE STRATEGIES IN THE *TEACHING PROCESS OF ENGLISH LANGUAGE ON STUDENTS ORAL PERFORMANCE FROM INTENSIVE INTERMEDIATE ENGLISH I FROM SEMESTER II-2017 AT FOREIGN LANGUAGE DEPARTMENT AT UNIVERSITY OF EL SALVADOR.

Incomes

Incomes descriptions	Amount
Income by student No. 1	$334.00
Income by student No. 2	$334.00
Total income	**$668.00**

Programmed Monthly Outlay

Expensses	Montly Amount	
Monthly Outlay student No. 1	(1x8)	$41.75
Monthly Outlay Student No. 2	(1x8)	$41.75
Total Project Outcome		

PROJECT EXPENSES, ESTIMATED PERIOD: 8 Months

ISSUE	COST
Mcmillam Book, Intensive Intermediate English I	$ 35.00
Papers Colorful images impressions, dictionary	$89.00
Ink, Cardboards,	$34.00
Parking	$45.00
Wood board	$118.00
Communications (Cellphone, internet, data, etc.)	$277.00
Meals for meetings and closure	$70.00
Incidental Expenses	$ 41.00
Total contribution for the Project per student	**$668.00**

Annex 10, Intensive Intermediate English I – II 2017 SYLLABUS.

UNIVERSITY OF EL SALVADOR
SCHOOL OF ARTS AND SOCIAL SCIENCES
FOREIGN LANGUAGE DEPARTMENT

1. GENERAL ASPECTS

1.1. COURSE NAME **INTENSIVE INTERMEDIATE ENGLISH I**

1.2. CODE I**IE 114, III 114**

1.3. PRE-REQUISITE INTENSIVE BASIC ENGLISH

1.4. CREDITS **8**

1.5. MAJOR STUDY PLAN **Licenciatura en Idioma Inglés Opción Enseñanza (Plan Modificado 1999)**
Licenciatura en Lenguas Modernas Especialidad Francés e Inglés (17-08-2001)

1.6. ACADEMIC YEAR AND SEMESTER **II – 2017**

1.7. LEVEL AND AREA **First Academic Year / Language and Skills Development Area** (**LASDA**)

1.8. ACADEMIC UNIT TEACHING THE SUBJECT **Foreign Language Department**

1.9. SCHOOL **Science and Humanities**

1.10. DURATION OF THE SEMESTER **16 weeks**

1.11. NUMBER OF WORKING HOURS AND WEEKS **16 weeks/160 hours**

1.12. DATE AND AGREEMENT OF THE C.S.U. STUDY PLAN **70-99-2003 (17-08-2001**)

1.13. PROFESSORS:

	Group	Schedule
César Guzmán	01	6:00 – 8:00 a.m.
Ricardo Fuentes	02	6:00 – 8:00 a.m.
Claudia de Guzmán	03	10:00 – 12:00 m
Ricardo Cabrera	04	1:00 – 3:00 p.m.
Alexander Bruno	05	5:00 – 7:00 p.m.
Mabel Mendoza	06	6:00 – 8:00 a.m.
Lilian Olivares	07	10:00 – 12:00 m
Ludwig Cornejo	08	10:00 – 12:00 m
Magaly Ábrego	09	1:00 – 3:00 p.m.
Mathew Alvarado	10	4:00 – 6:00 p.m.

COURSE DESCRIPTION

Intensive Intermediate English I is the second of five English language courses addressed to the students in B. A in Teaching English and also to the B. A in Modern Languages. Instruction in this course will take students to the A2 proficiency level, according to the Common European Framework (CEFR) guidelines. This course will promote the development of the communicative competence by developing the four macro skills: Listening, Speaking, Reading, and Writing. In addition, the grammar, vocabulary, and pronunciation sub-skills will be promoted in the classroom to make sure effective communication is achieved.

2. OBJECTIVES

At the end of this course, students will have consolidated an elementary level of proficiency described in the A2 CEFR guidelines:

Students:

- Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment).
- Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters.
- Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need and can understand the points of clear standard input on familiar matters regularly encountered in work, school, and leisure.

3. METHODOLOGY

Communicative language teaching makes use of real-life situations that need communication. The teacher sets up a situation that students are likely to encounter in real life. Unlike the other methods or approaches which rely on repetition and drills, the communicative approach can leave students in suspense as to the outcome of a class exercise, which will vary according to their reactions and responses.

Teachers in communicative classrooms will find themselves talking less and listening more becoming active facilitators of their students' learning. The teacher sets up pedagogical tasks and real-life tasks, but because the students' performance is the goal, the teacher must step back and observe, sometimes acting as a referee or a monitor. A classroom during a communicative activity is far from quiet, however. The students do most of the speaking, and frequently the scene of a classroom during a communicative exercise is active, with students leaving their seats to complete a task.

There will also be two tasks that will be carried out throughout the semester. Another important aspect will be homework assignments. Open Mind 2 second edition textbook and workbook by Macmillan Publishers, 2014 will be covered ly during this semester.

4. EVALUATION

Written Evaluation 1 *	10%
Oral Task 1	10%
Mid-term Oral Exam	20%
Written Evaluation 2 *	10%
Oral Task 2	10%
Written Evaluation 3 *	10%
Oral and Written Assignments	10%
Final Oral Exam	20%
	100%

*(Listening, Vocabulary, Grammar, Reading, and Writing)

5. TIME TABLE

WEEK	DATE	ACTIVITY
Aug.	**7**	Unit 1
	8	Unit 1
1	**9**	Unit 2
	10	Unit 2
	14	Unit 2
	15	Unit 2
2	**16**	Unit 2
	17	Unit 3
	21	Unit 3
3	**22**	Unit 3
	23	Unit 3
	24	Unit 3
	28	WRITTEN EVALUATION 1
4	**29**	Unit 4
	30	Unit 4
	31	Unit 4
Sept.	**4**	ORAL TASK 1
	5	ORAL TASK 1
5	**6**	ORAL TASK 1
	7	ORAL TASK 1
	11	ORAL TASK 1
6	**12**	Unit 5
	13	Unit 5
	14	Unit 6
	18	Unit 6
7	**19**	Unit 6
	20	Unit 6
	21	Unit 6
	25	MID-TERM ORALEXAM
8	**26**	MID-TERM ORAL EXAM
	27	MID-TERM ORAL EXAM
	28	MID-TERM ORAL EXAM
Oct.	**2**	MID-TERM ORAL EXAM
9	**3**	Unit 7
	4	Unit 7
	5	Unit 7

WEEK	DATE	ACTIVITY
	9	Unit 7
10	**10**	Unit 7
	11	WRITTEN EVALUATION 2
	12	Unit 8
	16	Unit 8
11	**17**	Unit 8
	18	Unit 8
	19	Unit 8
	23	Unit 9
	24	Unit 9
12	**25**	Unit 9
	26	Unit 9
	30	Unit 9
Nov.	**31**	ORAL TASK 2
13	**1**	ORAL TASK 2
	2	**Day of the Dead**
	6	ORAL TASK 2
	7	ORAL TASK 2
14	**8**	ORAL TASK 2
	9	Unit 12
	13	Unit 12
15	**14**	Unit 12
	15	Unit 12
	16	Unit 12
	20	REVIEW
16	**21**	REVIEW
	22	WRITTEN EVALUATION 3
	23	ORAL FINAL EXAM
	27	ORAL FINAL EXAM
17	**28**	ORAL FINAL EXAM
	29	ORAL FINAL EXAM
	30	ORAL FINAL EXAM
18	4	Remedial Exam
	5	Remedial Exam
	6	Remedial Exam
	7	Remedial Exam

6. CLASSROOM POLICIES

1. **CLASS PARTICIPATION AND USE OF ENGLISH:** Students' active participation is required. English must be spoken inside and outside classes.
2. **CLASS TIME**: Students are required to come to class on time.
3. **COURSE MATERIALS:** It is MANDATORY for all students to have their own required materials for attending classes.
4. **IN-CLASS STUDENTS' BEHAVIOR:** At the teacher's discretion, the students who show a disruptive behavior in the class activities may be asked to leave the classroom.
5. **MISSED EVALUATIONS:** Requests presenting a genuine written justification for missed evaluation should be made within the next three days following it. Quizzes are NOT made up.
6. **NO GROUP CHANGES ARE ALLOWED.**
7. **Turn cellular phones off** - It is very distracting to hear someone's phone go off in class. Texting in class is prohibited.
8. **Avoid eating in class**. It is distracting to others. Students are expected to tain cleanliness in the classroom. Please take beverage and other refuse with you when you leave.
9. The only acceptable reason for leaving during class is for **a personal or family emergency**.
10. **Assignments must be turned in on the due date.**

From Reglamento de Gestión Académico Administrativo de la UES

Art. 147. El estudiante para tener derecho a las evaluaciones en cada unidad de aprendizaje, deberá tener una asistencia a las actividades académicas mayor o igual al 75%.

Art. 150. Si el estudiante no se presenta a una evaluación por causa justificada, éste podrá solicitar por escrito su realización en forma diferida a más tardar dentro del tercer día hábil de haberse realizado ésta, ante el jefe de departamento o director de escuela, quien resolverá a más tardar al día siguiente hábil de presentada la solicitud, concediéndola o denegándola.

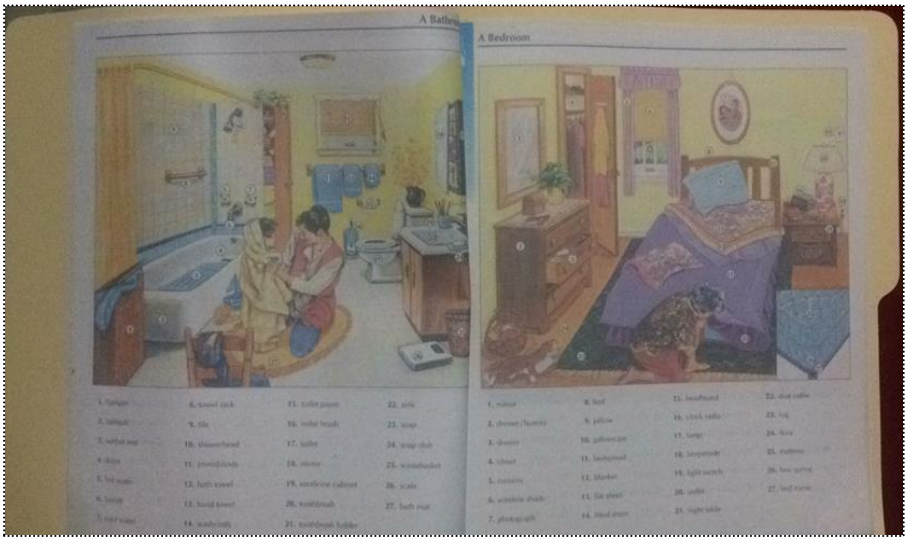
6. BIBLIOGRAPHY

- Bowen, Tim. Open Mind, Level 2. Second Edition. Macmillan Publishers, 2014. (textbook, workbook, video and CD ROM)
- Fuchs Marjorie, Focus on Grammar, Pearson Education.
- L.G. Alexander. English Grammar Practice. Longman Group. UK. 1998.
- Murphy, Raymond. English Grammar in Use. Cambridge University Press. N.Y., USA. 1994.
- Powell, Debra. Grammar Practice. Pearson and Longman.
- Vince, Michael. English Grammar in Context. Macmillan Education. 2008.
- Zemack, Dorothy, College Writing, Macmillan Education, 2003.

Annex 11. PICTURES

1.) INCIDENTAL LEARNING,
2) COLORFUL IMAGES STRATEGY


Ask out
GREASY
Break up
Go on a date
Get divorced
SALTY
CRUNCHY


A Bedroom


WATCH
FRAGRANCE
T-SHIRT
JEANS
PANTS
BELT


TABLE
DINNIG TABLE
CHAIR
SOFA
ARMCHAIR
ELECTRONIC EQUIPMENT
SMART TV
CAMERA
LAPTOP
HOME THEATER
CELL PHONE
SPEAKERS
TABLET
SCANNER
FOOD

COLORFUL EXTRA MATERIAL PROVIDED VRS. THE STUDENTS MATERIAL (BOOKS)

Annex 12 Representation of Frequency.

MTOE			
x_i	**Absolute Frequency (n_i)**	**Frequency ($f_i = n_i/N$)**	**Relative Frequency %**
3.3	1	0.0286	3%
3.8	1	0.0286	3%
4	1	0.0286	3%
5	1	0.0286	3%
5.1	1	0.0286	3%
5.4	2	0.0571	6%
5.4	0	0.0000	0%
5.5	1	0.0286	3%
5.9	1	0.0286	3%
6.2	3	0.0857	9%
6.2	0	0.0000	0%
6.2	0	0.0000	0%
6.3	3	0.0857	9%
6.3	0	0.0000	0%
6.3	0	0.0000	0%
6.6	1	0.0286	3%
6.7	1	0.0286	3%
6.8	1	0.0286	3%
6.9	1	0.0286	3%
7	1	0.0286	3%
7.1	1	0.0286	3%
7.5	1	0.0286	3%
7.6	1	0.0286	3%
7.7	1	0.0286	3%
7.8	1	0.0286	3%
8	3	0.0857	9%
8	0	0.0000	0%
8	0	0.0000	0%
8.4	2	0.0571	6%
8.4	0	0.0000	0%
8.7	1	0.0286	3%
8.8	1	0.0286	3%
8.9	1	0.0286	3%
9.8	1	0.0286	3%
10	1	0.0286	3%
Total	**35**	**1.00**	**100%**

FOE			
x_i	**Absolute Frequency (n_i)**	**Frequency ($f_i = n_i/N$)**	**Relative Frequency %**
2.9	1	0.0286	3%
3.9	1	0.0286	3%
4.3	1	0.0286	3%
5	1	0.0286	3%
5.7	1	0.0286	3%
5.8	1	0.0286	3%
6	2	0.0571	6%
6	0	0.0000	0%
6.1	1	0.0286	3%
6.2	1	0.0286	3%
6.3	2	0.0571	6%
6.3	0	0.0000	0%
6.4	1	0.0286	3%
6.7	1	0.0286	3%
6.8	4	0.1143	11%
6.8	0	0.0000	0%
6.8	0	0.0000	0%
6.8	0	0.0000	0%
7.1	1	0.0286	3%
7.2	1	0.0286	3%
7.4	1	0.0286	3%
7.5	2	0.0571	6%
7.5	0	0.0000	0%
7.6	1	0.0286	3%
7.9	1	0.0286	3%
8.2	1	0.0286	3%
8.3	3	0.0857	9%
8.3	0	0.0000	0%
8.3	0	0.0000	0%
8.4	1	0.0286	3%
8.8	1	0.0286	3%
9	1	0.0286	3%
9.5	2	0.0571	6%
9.5	0	0.0000	0%
10	1	0.0286	3%
Total	**35**	**1.00**	**100%**

GLOSSARY

INCIDENTAL LEARNING

Learning without explicit knowledge of doing so, but occurring through interaction with the environment (e.g., by observation/copying of behavior or response to reinforcement)

LONG-TERM MEMORY

Memories that are stored in a variety of places in the brain over long periods of time (Recency and Primacy Effects)

MEMORY, EPISODIC

Type of declarative memory used when one talks about events in one's life (includes time, place and emotions) (Your Incredible Memory)

MEMORY, SEMANTIC

Type of declarative memory used when talking about facts and concepts (Your Incredible Memory)

NEURON

A cell that is specialized for the transmission of information and characterized by long fibrous projections called axons, and shorter, branch-like projections called dendrites; the basic functional unit of the nervous system; also called a nerve cell (Virtual Neurons, Connect the Neurons, Close-up of the Nervous System, Bead Neuron)

NEURON, SENSORY

A neuron that picks up information from the body's sensory receptors in the skin, muscle, joints, tongue, ear, nose, and eyes and carries it toward the central nervous system; sensory neurons detect environmental information

necessary for the body to survive, e.g. touch, pain, temperature, light, sound, taste, smell, balance, and information about muscles and joints. (Virtual Neurons)

NEUROTRANSMITTER

A chemical, released by nerve terminals at a synapse, that crosses the synapse carrying information from the nerve terminal (pre-synaptic cell) to the dendrite (post-synaptic cell). Neurotransmitters, which are stored in synaptic vesicles in the pre-synaptic cell, bind to receptors on dendrites of neighboring neurons. Neurotransmitters relay information across the space between one neuron's nerve terminal and another neuron's dendrites. (Connect the Neurons)

NOTE-TAKING

The act or process of taking notes.

RECALL

The act of retrieving memory (Your Incredible Memory)

RESEARCH INTERVIEW

An interview conducted to gather information for a speech.

SHORT-TERM MEMORY

An early stage in the processing of information in the brain; information only held for a few minutes. Some of this information will be lost or forgotten, while some will be processed into long-term memory. (Recency and Primacy Effects)

VISION

The sense of sight; the ability to detect information from wavelengths of light.

VISUAL AIDS

An instructional device (such as a chart, map, or model) that appeals chiefly to vision; especially :an educational motion picture or filmstrip.