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FACULTAD DE FILOSOFÍA, LETRAS, Y CIENCIAS DE LA EDUCACIÓN

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“Classroom Procedures Based on the Multisensory Approach for 6th Graders to Develop Reading Comprehension at Unidad Educativa San Francisco”

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RESUMEN

Este trabajo es un proyecto de investigación basado primeramente en el estudio de la teoría del Enfoque Multisensorial. Para desarrollarlo, fue necesario analizar el estudio del Dr. Samuel Torrey Orton sobre problemas del aprendizaje, el que lo llevó a establecer un procedimiento de instrucción multisensorial. Estos y otros análisis permitieron a las investigadoras de este proyecto crear un folleto, el cual contiene lecturas e instrucciones para ser aplicadas de manera multisensorial. Es por eso que no solo se recopiló lecturas sino también material multisensorial, con el fin de enseñar a los estudiantes a través de este enfoque. Para llevar a cabo este proyecto, se involucró a veintiocho (28) estudiantes del sexto de básica, paralelo “B”, de la Unidad Educativa “San Francisco”. Se tomó una prueba previa a los estudiantes para medir su nivel de comprensión lectora. Después, se aplicaron los procedimientos en el aula basados en el Enfoque Multisensorial (lectura en voz alta, presentación de vocabulario, presentación de un video, actuación de una obra de teatro y manejo de materiales de escultura), así como se usó material multisensorial (tarjetas de memoria, videos, materiales de escultura, entre otros) para desarrollar una clase que duró ochenta (80) minutos. Este proceso se administró durante siete sesiones en un periodo de tres semanas y media. Finalmente, se aplicó una prueba posterior para verificar los logros del proyecto. Los resultados de la prueba posterior mostraron una gran mejoría en la comprensión lectora de los estudiantes.



Palabras claves: Enfoque Multisensorial, lectura comprensiva, kinestésico-táctil, visual, auditivo, folleto, prueba previa, prueba posterior, aprendices del idioma inglés, proceso de aprendizaje.



ABSTRACT

This work is a research project based on a study of the theory of the Multisensory Approach. Thus, it was necessary to learn about Dr. Samuel Torrey Orton's study on learning disabilities, which led him to establish a multisensory instruction procedure. This and other analyses allowed the researchers of this project to create a booklet that contains readings and instructions to be applied in a multisensory manner. That is why, not only stories, but also multisensory material, were collected in order to teach students through this approach. To carry out this project, twenty-eight (28) students of 6th "B" grade from Unidad Educativa "San Francisco" were involved. A pre-test on reading comprehension was taken by the students in order to measure their reading comprehension level. After that, classroom procedures based on the Multisensory Approach (reading aloud, presenting vocabulary, presenting a video, acting out a role play, and manipulating sculpting materials) and multisensory material (flash cards, videos, sculpting materials, among others) were comprised in a single class that lasted eighty (80) minutes. This process was administered for seven sessions during three and a half weeks. Finally, a post-test was applied in order to find out the effects of the project. The results of the post-test showed great improvement in the students' reading comprehension.

Key words: Multisensory Approach, reading comprehension, kinesthetic-tactile, visual, auditory, booklet, pre-test, post-test, English language learners, learning process.



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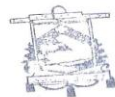


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INTRODUCTION



English is considered an essential language in many countries and cultures around the world both for everyday use and in business. Ecuador is no exception. In fact, nowadays it is necessary to pass some levels of English in order to get a professional degree. Therefore, it is taught to children at a very early age in most educational institutions. However, not all schools have sufficient material to carry out this process in a successful manner.

In addition to this problem, all children do not learn in the same way, this being the reason that it is more difficult to teach this language. Thus, the Multisensory Approach is appropriate for learning English. In the early 1900's, Orton analyzed children's learning disabilities in acquiring English as their native language. As a result of his study and the contribution of Grace Fernald, his colleague, Orton developed a multisensory instruction approach to help those children.

Although this approach was especially created for teaching special needs students, some authors who will be mentioned throughout this work state that multisensory teaching is suitable for everyone. Also, as it was previously mentioned, this type of instruction was developed to teach English to native speakers. However, more recent studies have demonstrated that the Multisensory Approach works effectively in acquiring English as a foreign language.



Moreover, since reading skills help greatly improve the learning of English, this project is focused on developing reading comprehension through a multisensory instruction in the EFL classroom. This was done with the 6th B graders at Unidad Educativa “San Francisco.”

This paper is composed of five chapters. The first chapter deals with the problem this research detected, justification and the aim and specific objectives of this work. In chapter number two, one can find the literature review, which is divided into two parts. The first one is related to the topic itself, while the second describes the importance of the Multisensory Approach in the EFL classroom. The third chapter contains the methodology, which explains how this work was carried out. The fourth chapter demonstrates the results obtained in both the pre and post-test through graphics and brief explanations, as well as the overall findings of the project. The last chapter includes a conclusion and some recommendations that the authors give to teachers, who might be interested in using the booklet that has been designed.



C HAPTER I

THE PROBLEM

1.1 Topic

The aim of this project is twofold: to design a booklet that contains readings and to collect multisensory material, which is appropriate for working with the readings for sixth graders to develop reading comprehension at “Unidad Educativa San Fransisco.”

1.2 Description of the problem

First of all, the biggest problem our educational system faces is that at present children are learning through a traditional education, which needs to be transformed into a meaningful teaching-learning process. Teachers know that each student learns differently. However, they are still teaching in the same way. Probably, it is not their fault considering that many institutions are not prepared for the task and do not have the appropriate material, so that teachers



and students can have a more appropriate environment for the learning process to occur. Therefore, it would be an excellent idea to start applying the Multisensory Approach in the classroom and take the advantage it offers to students. Due to the complexity of the use of multisensory materials, teachers tend to ignore this essential teaching approach. Major, in her short work “Why Use Multisensory Teaching Methods?” states that;

“It is ironic to me that we adults readily accept the concept of differences in gifts and talents and yet, when it comes to our children’s education, often expect them to all learn in the same way. Not only is traditional education based on teaching material in a mostly flat, linear manner that does not mesh with the various ways children learn best, but we then grade children based on their ability to 'learn' or not within that approach that may just not work for many of them.”

Also, it is important to mention that the Multisensory Approach works very well for learning English as a Foreign Language. In line with Bray, as we can read in her web site *Ladder Learning Services LLC Your Ladder to Success!*:

[...] English is a difficult language to master: it has the most words of any language on Earth and it is made up of words derived from Old English, French, Latin, Greek, and many other languages.



Spelling and pronunciation are going to be extremely difficult if you do not have systematic instruction. Memorization, the main component of learning another language, is aided by using multiple sensory inputs¹ [...]

As stated before, the Multisensory Approach, which includes visual, kinesthetic-tactile, and auditory ways of learning, allows students to retrieve what is learned because they learn by seeing, hearing, and doing things.

Since this project will be directed to 6th “B” graders at “Unidad Educativa San Francisco,” the English teacher, Mayra Guanolique, has been interviewed.

According to her, children find it very difficult to learn and to develop the reading skills, specially reading comprehension. Therefore, this project will be focused on that specific area. She also states that this problem is caused by the brevity of the material used to teach the reading skill. She suggests that new material which children can touch, see, and hear, should be introduced into the classroom. In addition to the material, new procedures should be implemented because these students need to be encouraged to learn English, especially the particular skill they have difficulty with. These students are very active, and they do not like to do the same activities. The biggest problem comes when they get

¹ Input, as defined by YOUR DICTIONARY is: something entered into a machine or other system, the act of entering data or other information, or input can also describe giving one's help, advice or thoughts.



tired of routine and begin to misbehave. Therefore, classroom procedures based on the Multisensory Approach will help them stay on task and still learn.

1.3 Justification

“Learning is experience. Everything else is just information,” said Albert Einstein, and that is exactly what the Multisensory Approach suggests. According to Bredekamp, in her short work “How Young Children Learn,” “[c]hildren do not need to be forced to learn; they are motivated by their own desire to make sense of their world.” Therefore, children do not require so much information to learn, but they need to know the correct methods to help them process and learn. As stated by Piaget, quoted in Bredekamp’s short work “Active, Engaged, Meaningful Learning,” [children] are exceptionally sensory, which means that they learn best by touching, tasting, hearing, smelling, and moving their bodies.” Thus, they need to learn from meaningful activities, such as visual, kinesthetic, and manipulative activities, among others.

In line with Dominica, in her short work “Multisensory Teacher,” children do not learn only from books, but from feeling, doing, and experiencing what they are learning. She also states that “[m]ulti sensory teaching helps children register information better and retain it for a longer period of time.” This last idea suggests that teachers have to take into account this teaching method, considering that it aids students to acquire information and maintain it in their brains in a retrievable fashion.



Meanwhile, Cox, in her short work “Multisensory Teaching Method to Reading,” states that “[t]he Multisensory teaching approach to reading is based on the idea that some students learn best when the material that they are given is presented to them in a variety of modalities.” These modalities can be movements, as well as material which can be touched, seen, and heard by them.

Furthermore, since Weiler, in his web site *Strategies in Language Learning*, points out that learners can improve their language learning by being involved in developing their reading skills. Also, teachers feel more motivated to work. He states that “most people read for meaning.” Therefore, through this skill, learners will be able to pick up the meaning of words by themselves without using a dictionary. However, people read not only for meaning, but also for understanding “how the language works.” This author lists some reasons that highlight the importance of reading when learning a foreign language:

- Reading to see how the language fits together.
- Reading to see how language flows.
- Reading for punctuation.
- Reading for vocabulary.
- Reading for style.
- Reading for emotional content.
- Reading to see what differentiates written language from spoken language.



For these reasons, the creation of a booklet containing readings and classroom procedures, based on the Multisensory Approach, will help children to develop the reading comprehension skill. As it was mentioned by the English teacher we spoke with, reading comprehension is the most difficult skill for them and they do not have enough material to develop it.

1.4 Hypothesis

Classroom procedures based on the Multisensory Approach will improve 6th “B” graders’ reading comprehension in the EFL classroom at Unidad Educativa “San Francisco.”

1.5 Objectives

1.5.1 Aim

- To design a booklet containing readings with instructions based on the Multisensory Approach.

1.5.2 Specific Objectives

- To carry out a research to support the importance of applying multisensory material in the classroom for teaching reading comprehension.
- To collect interesting readings according to the students’ levels.



- To compile multisensory material (visual, auditory, and kinesthetic) according to the readings the students will be working with.
- To use the booklet and the material with 6th “B” graders at Unidad Educativa “San Francisco.”



C HAPTER II

MULTISENSORY APPROACH AND ITS IMPORTANCE IN EFL ENVIRONMENTS

The literature review of this work will be divided into two main parts. The first one will consist of the development of some aspects dealing with the topic itself (Multisensory Approach), while the second part will be related to the Multisensory Approach and its importance in EFL environments.

2.1 Description of some aspects related to the Multisensory Approach

2.1.1 What is the Multisensory Approach?

In order to understand this topic better, it is necessary to quote more than one single author's ideas. Thus, some appropriate definitions about the Multisensory Approach are presented below.



First of all, according to The International Dyslexia² Association, “Multisensory Teaching is simultaneously visual, auditory, and kinesthetic-tactile to enhance memory and learning.” (69) In line with *Calvert Education: partnering with parents to educate today’s youth* website, “[m]ulti-sensory instruction refers to the way information is delivered to the student. The three primary modes of instruction are visual, auditory, and sensory-motor.” “Simply put, multi-sensory teaching is teaching that is done in such a manner that it appeals to the five senses.” This definition was borne out of Dr. Samuel Orton and Dr. Anna Gillingham’s work with special needs students. Thus, for example “[i]nstead of just telling someone about an avocado, we let them touch it, smell it, taste it, etc.” (qtd. in Spence). To expand the idea about this topic, Terp states that “[m]ultisensory learning [occurs] when we use visual, auditory, and kinesthetic-tactile ways to learn and to remember what we learn.” (qtd. in Beck-Jacobson).

In other words, the Multisensory Approach is based on the students’ learning through their own senses. Although a person is able to learn by using the five senses, the main three modalities or ways to do it are the visual, auditory, and kinesthetic-tactile ones. This type of learning allows students not only to learn something new, but also aids them in improving memory and recall what they have learned.

² Dyslexia, as defined by The American Heritage Dictionary is: A learning disorder marked by impairment of the ability to read.



2.1.2 A Brief History of the Multisensory Approach

As with other teaching methods or techniques, multisensory instruction started from an educational need. In order to understand when and how this approach emerges within a learning context, it is necessary to mention a study carried out by Dr. Samuel Torrey Orton quoted in Erika Huff's website, *Reading Horizons At-Home Solutions*.

Orton was a physician who established the study of learning disabilities in the early 1900's. He especially focused on the study of the causes and approaches for the treatment of dyslexia.

In Massachusetts, Orton operated with adults who had brain damage. Consequently, he found out that patients with brain damage and children with apparently intact neurological functioning had problems with language and reading. Therefore, he decided to investigate why those adults and those children were inflicted with the same problem. After his study, he concluded that both children with reading difficulties and adults who had injuries to the left hemisphere were not able to access the left hemisphere when dealing with reading, so in this case the right hemisphere was dominant.

As a result of his study, Orton introduced the theory of multisensory instruction with the idea of integrating both right and left brain functions through reading instruction. Meanwhile, his colleague psychiatrist Grace Fernald had



developed the kinesthetic method, which consisted of “writing in the air and tracing words in large written or scripted format, while simultaneously saying the names and sounds of the letters.” In that way, Orton was inclined by Fernald’s work to build his Multisensory Approach.

Afterward, Orton worked with psychologist Anna Gillingham. She designed instructional materials to teach the English alphabet composed of 44 phonemes. In addition to the sounds with the instructional material, also morphemes such as prefixes and suffixes were taught. The combination of Dr. Samuel Torrey Orton’s multisensory techniques and Anna Gillingham’s teaching system has helped greatly in learning English. Their system has helped students use some skills to decode words and memorize only nonphonetic words, instead of memorizing all the words. (Huff)

The combination of the two works just mentioned is also known as the “Orton-Gillingham method” of reading instruction, because of the authors’ last names.

Therefore, the “Orton-Gillingham approach” is a complex method in which Multisensory Instruction forms part of it. However, some authors such as Spence, in her webpage *Sharing a Developmental Approach to Reading*, calls Multisensory Teaching “The Orton-Gillingham method.”



2.1.3 Is this approach for everyone?

It is essential to answer this important question because the success of this project will depend on its answer. Although, initially, Dr. Samuel Torrey Orton developed this approach for children with dyslexia and other learning disabilities, now it is known that this approach can perfectly work for all students.

Terp, cited in Beck-Jacobson's short work, points out that "[m]ultisensory learning works for everyone and it especially works for children." This is because, unlike children, adult people have already learned how to get information even though that information is presented only in one manner.

Consequently, this kind of learning instruction is more suitable for children (whether with learning disabilities or not) than adult people, because all children have not yet acquired an efficient manner to catch information, so they need more than a single input to absorb, process, and remember that information. Since the Multisensory Approach offers the three main learning inputs in a single class, it is very useful for all children.

Furthermore, Terp provides some reasons why multisensory teaching is important, not only for children with learning difficulties but also for all learners in the classroom. These reasons are the following:



- Multisensory teaching aids to recompense the use of a stronger sense for a weaker one
- This instruction is more engaging than others
- It also helps overcome distractions
- It provides more ways to collect information
- This teaching method helps retrieve what has been learned
- It takes advantage of nonverbal³ reasoning skills
- It is an entertaining and funny method

Moreover, Cox, in her short work “Multisensory Teaching Method to Reading,” manifests that:

“All students can benefit from multisensory learning, not just special education students. Every child processes information differently, and this teaching method allows [...] each child to use a variety of their senses to understand and process information.”

Gorjian, Alipour, and Saffarian, in their study *The Effect of Multisensory Techniques on Reading Comprehension among Pre-Intermediate EFL Learners: The Case of Gender*, expand the last idea by stating that “multisensory methods are not limited only to students with dyslexia” (193).

³ Nonverbal, as defined by The American Heritage Dictionary is: Involving little or no use of words. For example: a nonverbal intelligence test.



Thus it can be said that not only students with learning problems, but all children under eleven are able to learn better through concrete materials.

Unlike traditional teaching methods, this one benefits all students. A teacher using this instruction is able to cover each student's needs regardless of the different learning styles in the classroom. In traditional instruction, some students will have more advantages than others, and it may affect their performance because they will not be able to demonstrate their abilities in the learning process. Children usually have a stronger desire to learn, but all of them can benefit from this instruction, because it appeals to the five senses, especially to the visual, auditory, and kinesthetic-tactile ones.

To conclude, it is opportune to add that these previous points of view of these authors support this project. Since this approach is appropriate for everyone, all students in the classroom will be taken into account to form part of this research.

2.1.4 General definitions of human senses

The following statements contain short definitions of the five human senses. It is significant to explain that these definitions do not have anything to do with the anatomy and structure of the body organs, but with the functions which serve us to perform, as human beings, in society.



Hearing

According to Sickels, in his short work “The five Senses of Human Nature,” hearing “[i]s that sense by which we distinguish sounds, and are capable of enjoying all the agreeable charms of music.”

Thanks to this sense, people are able to transfer to each other information, such as thoughts, ideas, and desires. In that way, hearing allows people to be social beings who receive important part of knowledge from social relations.

Seeing

Sickels, in the work just mentioned, states that seeing “[i]s that sense by which we distinguish objects, and in an instant of time, without change of place or situation” [...] To expand the idea, Pediaopolis adds that “[s]ight or vision is the capability of the eye(s) to focus and detect images of visible light” [...] Thus, seeing helps people recognize things as long as this sense is managed by rays of light.

Feeling

For Sickels, feeling “[i]s that sense by which we distinguish the different qualities of bodies:—such as heat and cold, hardness and softness, roughness



and smoothness, figure, solidity, motion, and extension.” As it was mentioned by Sickels, the sense of feeling is the one that allows us to perceive concrete things just the way they are.

Smelling

Pediaopolis, in his work “The 5 Senses,” considers smelling as a chemical sense. The function of this sense, in combination with air, allows people to distinguish different bodies. Thus, the sense of smell works, thanks to the air. In line with Sickels, smelling “[i]s that sense by which we distinguish odors, the various kinds of which convey different impressions to the mind.”

Tasting

As stated by Pediaopolis in the same work, “[tasting] refers to the capability to detect the taste of substances such as food, certain minerals, and poisons, etc.” Therefore, by using this sense people are able to choose proper food which might vary among them. According to Sickels, “[s]melling and tasting are inseparably connected” [...]

2.1.5 Brief explanation of human senses in learning

Processing information, when learning, highly depends on our senses, so it is essential to engage more than one sense in the teaching process.



According to Pitts, in her short work “Learning Is Multi-Sensory: How To Engage All The Senses So Children Really Benefit,” “[u]sing multiple senses allows more cognitive connections and associations to be made with a concept.” Therefore, this author states that it is simpler for students to activate and recover information from their cognitive learning center, because there are more channels to process information. As all students have a different way of learning, a teacher has to be able to prepare beneficial lessons for everyone. Thus, Pitts considers that multisensory learning not only helps students retain information in a multisensory way, but also makes learning a fun experience. Therefore, this author recommends the inclusion of activities that engage all the five senses.

It is fundamental to explain that although one can learn through the five senses, this work focuses on the Multisensory Approach developed by Orton that involves visual, auditory, and kinesthetic-tactile modalities (such as body movements and manipulation of objects). Therefore, classroom procedures to help children develop reading comprehension will be based only on the ways just listed considering these are the most important ones. Thus, taste and smell will not be included in the activities. However, it should be emphasized that there are good activities in which taste and smell can be involved, as long as the teacher is well prepared.

Also, it is essential to clarify that most of the authors classify the ways of learning into three fashions: visual, auditory, and kinesthetic. However, some



authors, such as Praven, classify them into four fashions of learning: auditory, tactile, kinesthetic, and visual, while others prefer to call the tactile and the kinesthetic ways as kinesthetic-tactile.

2.1.6 General Techniques and Strategies

According to Praven's short work, "What is Multisensory Teaching Techniques?" techniques and strategies based on the Multisensory Approach encourage learners to use their senses to:

- gather information about a task
- link information to ideas they already know and understand
- perceive the logic involved in solving problems
- learn problem-solving tasks
- tap into nonverbal reasoning skills
- understand relationships between concepts
- store information and [retrieve] it for later recall

Praven states that using multisensory techniques can help students to learn from more than a single sense. However, this author points out that the most common learning techniques are based on visual and auditory modalities, but sometimes the senses of sight and hearing may be weak or become affected due to the many circumstances that can cause learning problems. That is why Praven recommends to add tactile and kinetic techniques to the visual and auditory ones. Thus, this author lists the following multisensory techniques:



Auditory	<ul style="list-style-type: none">• Books on tape, peer-assisted reading, paired reading and computerized text readers.• Video or film with accompanying audio.• Music, songs, instrument, speaking, rhymes, chants and language games.
Tactile	<ul style="list-style-type: none">• Sand trays, textured objects, finger paints and puzzles to improve fine motor skills.• Modeling material such as clay and sculpting materials.• Using small materials called manipulatives to represent number values to teach math skills.
Kinesthetic	<ul style="list-style-type: none">• Games involving jumping rope, clapping or other movements paired with activities while counting and singing songs related to concepts.• Any large movement activity for students involving dancing, activities involving concepts, rhythmic recall and academic competition such as quizzes, flash card races and other learning games.
Visual	<ul style="list-style-type: none">• Text and/or pictures on paper, posters, models, projection screens, computers or flash cards.• Use of color for highlighting, organizing information or imagery.• Graphic organizers, outlining passages.• Student created art, images, text, pictures and video.



To close this point, it is imperative to add that the techniques and strategies just explained are efficient for teaching any subject. Thus, they cannot be omitted because, through these, it can be understood how this approach works in the learning process. These techniques and strategies can be also applied in an EFL classroom as long as these are used in a correct manner. However, in the next part of this literature review, some specific multisensory techniques and activities for teaching English will be presented.

2.2 Multisensory Approach in the EFL classroom

2.2.1 Importance of using the Multisensory Approach when Learning the English language

After learning about the most essential aspects of the Multisensory Approach, it is necessary to comment on the importance of applying this approach in the EFL classroom.

Since a traditional method does not work for everyone, it is necessary to apply multisensory teaching techniques in the EFL classroom. This kind of instruction works not only in learning the native tongue but also in acquiring a second language.

According to Gallagher, cited in Sara Ureno's work, *Using Multisensory Methods in Reading and Literacy Instruction*, "[m]uch like special need students,



a student that is an English language learner can have a particularly difficult time when it comes to reading and literacy⁴.”

Thus, English learners will find it difficult to acquire English as a foreign or second language. Therefore, they need to have a significant instruction to acquire it. Based on the same work, according to Schneider and Evers, “[t]eaching strategies that can be beneficial to English language learners is to adopt a multisensory method to reading instruction.”(6)

In another study, *Principles and Methods of Teaching Foreign Languages to Dyslexic Learners*, by Táncoz, Mónos, and Wiwczaroski, it was found that the Multisensory Approach is one of the best methods to teach English as a foreign language to students with learning disorders. This is because they may use only a partial quantity of the incoming information, due to their inefficiencies with visual and auditory information processing. However, they also state that this approach is useful for all learners. They point out that:

“The essence of the [M]ultisensory [A]pproach is that students perceive the input through more than one sensory channel, which means that there is visual, auditory, as well as tactile-kinesthetic information processing in parallel. [...]”

⁴Literacy, as defined by Merriam-Webster is: The ability to read and write.



Thus, “the same information leads to the development of various engrams⁵ in the brain” (Tánczos, Mónos, and Wiwczaroski), improving the effectiveness of learning considering this process simplifies the coding, storage, and retrieval of information from memory. In that way, English learners are able to encode, store, and retrieve the information they receive through their senses.

(3, 4)

Meanwhile, Holešinská, in her work *Teaching English as a Foreign Language to Students with Learning Difficulties*, also considers multisensory techniques as an efficient approach in learning English as a foreign language. She states that [...] “[t]his method is sensible for teaching pronunciation, spelling, reading and other skills” [...] Also, this author agrees that multisensory modalities allow young learners to memorize and retrieve information. (17)

In line with McColl et al., the contributors of *Language without Limits* website, it is imperative to adjust different learning ways, since not all students learn in the same manner. Thus, these authors provide some reasons by explaining the importance of offering students multisensory opportunities when learning a language.

- In traditional education, language habitually was taught only through a textbook, so students found it hard and unmotivating.

⁵ Engram, as defined by Oxford Dictionaries Language Matters is: A hypothetical permanent change in the brain accounting for the existence of memory; a memory trace.



- Research has shown that simply telling students information is not the most effective method for learning.
- Understanding of theories does not depend on telling, but rather on experience, especially for special needs students.
- Images offer students a support to memory and recall.
- A variety of activities can help eliminate students' boredom, and helps keep them interested.
- Before students try to use the target language to speak, listen, write, and read, they need to practice that language by manipulating its components, which is known as consolidation.

In addition to the benefits previously mentioned, a personal experience of a native English speaker teacher who has used the Multisensory Approach throughout her professional practice is presented below.

“My name is Nancee Ellen Petersen and I have a Ph.D in Education with a Master’s Degree in Psychology. I have been teaching in the public school system for forty-five (45) years plus. Those years included a year teaching English in a university in Wuhan, China, three years tutoring students from many different countries in my home in Mexico City, Mexico, as well as teaching at universities and high schools/middle schools in the United States. For the last three years, I have been tutoring both children and adults in Cuenca, Ecuador.

María Cristina Montenegro V.
Tania Gabriela Pincay B.



During all my years of teaching and tutoring, not only English, but also Mathematics, I have used the Multisensory Approach. I truly believe it was the key to my success with all of my students. Every person in the world has to learn using three modalities: auditory, verbal, and kinesthetic. We all use one or two of them more than the other. Therefore, it makes perfect sense, when we are teaching a classroom full of students – knowing that they all learn differently – we use an approach that enables all of them to learn the material they are using. Whereas a lecture may not capture the attention of some of the students, a role play or a dialogue might. The purpose of the teacher is to guide and instruct in such a manner that all children learn – not to make her job easier by standing in front of the class lecturing on a daily basis.

I have also discovered that the Multisensory Approach works equally well in ALL subjects, with various nationalities and with all ages. In all my years of teaching, I can safely say that the only reason a teacher would NOT use the Multisensory Approach is due to the lack of incentive or imagination. The available options are numerous and I definitely would advise using whatever your imagination can conjure up!! The Multisensory Approach adds drama and excitement to the classroom, keeps the students interested in how you are going to present the class and promotes learning in the most effective way possible!!!”



Consequently, the Multisensory Approach is considered an excellent instruction in learning English. In order to support these theories, some previous studies based on this approach will be presented in the next point.

2.2.2 Previous Studies on the Multisensory Approach

It is always important to note that previous studies about the topic have already been developed. In that way, the authors of this work will try to demonstrate the effectiveness of their study. Therefore, some works about the topic will be described below in order to support their project.

The first study is called *Using Multisensory Approach for Teaching English Skills and its Effect on Students' Achievement at Jordanian Schools*. It was made by Dr. Sereen Jubran at Jordanian public schools. He worked on the tenth grade students' achievement in English by applying the Multisensory Approach to teach the four main skills. To develop this study one hundred twenty-two (122) participants were involved, both girls and boys, at Aisheh Bent el Rasoul secondary school for girls and Firas Al Ajlouni secondary school for boys in Amman, the fifth Directorate of education, during the second semester of the academic year 2010/2011.

The participants were divided into two groups, the experimental one in which students were taught English using the Multisensory Approach, and the control group, in which students were taught English through a traditional



method, which consisted of reading lessons, memorizing vocabulary, using textbooks and other materials. Students of the two groups experienced this process for a period of eight weeks.

A pre-test was applied before the treatment to ensure that the two groups were in the same level of knowledge. After the treatment, a post-test was applied in order to get the students' achievement in English. Both, the pre and the post- test consisted of thirty (30) items. Finally, the post-test showed differences between the control and the experimental group. The results indicated that students who were part of the experimental group obtained better achievement in English.

Since our project aims at creating a booklet and multisensory material to develop children's reading comprehension, these two studies presented below are the most important, because they are focused on the development of the reading comprehension skill within an EFL context.

The Effects of Storytelling on EFL Young Learners' Reading Comprehension and Word Recall was carried out in Taiwan by Huang, who investigated the effects of contextualized storytelling on reading comprehension and word recall. Young learners of English, as a foreign language, were involved in his project. He focused on three models or methods to teach and assess students' reading comprehension and word recall. These three teaching



methods were Dual-Code Model⁶, Multiple Sensory Approach, and Text-Only Reading. The author of this project hypothesized that contextualized storytelling, through multisensory stimulation, could help students to improve reading comprehension and vocabulary retention.

After the appropriate research, he applied the three modalities previously mentioned with four classes of sixth graders, consisting of seventy-two (72) students from a public school. Those children were around the age of eleven (11) years old and were given a modified Dolch Basic Sight Vocabulary⁷ test to know their performance differences before the treatment. The results showed that there were thirty-six (36) proficient students and thirty-six (36) less proficient students.

Then students were randomly divided into three groups C, I, and S. Each group received a different mode of reading. In that way, group C received text-only reading modal; group I received illustration-supplemented reading based on the Dual-Code Model, and group S received story listening plus illustrated-text reading.

⁶ Dual-Code Model: According to Allan Paivio, Dual-Code Model refers to verbal associations and visual imagery.

⁷ Dolch Basic Sight Vocabulary: As defined by Wikipedia: The Free Encyclopedia is: A list of frequently used English words compiled by Edward William Dolch, a major proponent of the "whole-word" method of beginning reading instruction.



In short, two stories were used in the procedure since the author found them appropriate for the study. This procedure consisted of two reading experiments and assessments. However, it is important to note that due to the irrelevance of the second experiment for the present study, it is considered advisable to eliminate it from this work, in order to focus only on the appropriate one that fits in this project. This suitable experiment was involved in teaching in the following way: “Group C read the text-only story, while Group I read the same story with illustrations, and Group S first listened to the same story, interpreted by the storyteller, and then read the illustrated text.” Thus, this last model was based on the Multisensory Approach. The purpose of this experiment was to discover if more methods of input allowed students to improve word retention and reading comprehension.

Finally, the results demonstrated that there were no significant performance differences among the three groups in retention of vocabulary, so contextualized storytelling and illustrated text did not work, as it was expected by the author. However, as it was hypothesized, significant differences among the three groups with respect to reading comprehension were found. Thus, multiple avenues of input allowed students from group S to improve their reading comprehension. Therefore, once again, it is proved that the Multisensory Approach works very well in learning English as a foreign language.



This last study, *The Effect of Multisensory Techniques on Reading Comprehension among Pre-Intermediate EFL Learners: The Case of Gender*, was carried out by Bahman Gorjian, Mohammad Alipour, and Rezvan Saffarian in a private language institution in Behbahan, Iran. First, ninety (90) pre-intermediate students were examined through a RC proficiency test, which included fifty (50) multiple-choice items in order to select students with similar scores. The age of the students ranged between sixteen (16) and eighteen (18) years old. Then, sixty (60) students were selected to experience the process of the experiment, which lasted three months.

After that, the students already selected were divided into two groups randomly, the experimental and the control group. A pre-test was applied in order to determine their level as pre-intermediate learners. Both groups were taught with the same materials but different techniques.

The experimental group was taught through multisensory modalities such as visual, tactile, music, and kinetics. Therefore, they could touch, feel, and manipulate materials which helped them to get a better understanding of the concepts. Meanwhile, the control group did not have the opportunity to experience such multisensory techniques. However, the two groups covered reading materials of *Interchange 3* by Richards (2007) during twelve (12) sessions of ninety (90) minutes each. Finally, a post-test was administered to the groups.



The results of the post-test showed that the experimental group performed better. Therefore, multisensory techniques affected students' reading comprehension and helped them increase this skill.

This last study serves as a guide to carry out our project, which involves introducing classroom procedures based on the Multisensory Approach.

2.2.3 Techniques and activities when applying the Multisensory Approach in the classroom

According to McColl et al., in their web site previously mentioned, it is very important to involve all the senses when teaching a new language. They recommend teachers to focus on the tasks they are applying in the classroom in order to implement at least one other sense. These authors list the following examples that can be used in the classroom:



Sight	<ul style="list-style-type: none">• Text• Pictures• Graphics
Sound	<ul style="list-style-type: none">• Listening to the teacher and others• Recordings• Videos• Talking• Shouting• Whispering• Singing• Rhymes• Story-telling• Clapping rhythmically to indicate syllabic stress, etc.
Touch	<ul style="list-style-type: none">• Handing objects• Making things• Describing shapes• Gesturing• Using computer keyboard, etc.
Taste	<ul style="list-style-type: none">• Sampling food and drink• “Savoring the language” (articulation? Intonation)
Action	<ul style="list-style-type: none">• Manual and physical activities; games involving manipulating objects or moving around



Tánczos, Mónos, and Wiwczaroski, in their previously mentioned study, explain that [...] “[w]hen visual and auditory information processing are in progress, the simultaneous kinaesthetic-tactile perception facilitates the forming and fixing of associations among the pieces of information.”

Nevertheless, in language teaching, touching and movement are seldom used to fix input. Therefore, these authors suggest techniques and activities that involve these two sensory modalities in the language classroom, besides the visual and auditory techniques that are used more often.

- There is always movement when someone talks and writes. The first activity includes *movements* of the mouth and the speech organs; the second activity includes movements of the fingers and upper arm. Thus, these exercises should be used more frequently in the language classroom. Additionally, teachers should help students learn about the importance of reading the material aloud even when they are at home. This activity will help students to develop their auditory engrams. Also, writing new information is very useful.
- *Project work* offers opportunities to increase and fortify visual and kinesthetic-tactile engrams. Therefore, allowing students to create projects is an effective way to help them acquire and increase topic-related vocabulary due to the diversity and multitude of stimuli inherent in the activity.



- Another important activity in language teaching is *role-playing*. It is important because role play initiates students' feelings, allowing information to penetrate deeper and last longer in the brain. Also, this activity is very helpful when teaching pragmatics. Thus, learners will be able to acquire the expressions most suitable to the particular situation they are demonstrating in the language classroom.
- Learners can use *mimics*, gestures, and movements in a dynamic way, in couples or groups, in order to activate vocabulary.
- Students can also use and *manipulate cards*, when acquiring words and grammatical items. This activity offers learners a large quantity of kinesthetic-tactile input. Thus, wood boxes of different sizes, toys, buttons, and letters made of wood or plastic can be used for this aim.
- It is imperative to remember that a teacher should not present more than one or two new *sounds* or *symbols* at one time. When a new sound is demonstrated, the teacher should ask students to mimic his/her lip movements, while they follow, with their fingers, the shape of the letter that corresponds to the sound in their books or material. At the same time, learners also have to pronounce the sound of the new letter they are learning. In order to reinforce the phoneme⁸–grapheme⁹ relationship,

⁸ Phoneme, as defined by The American Heritage Dictionary is: The smallest unit of speech that is capable of conveying a distinction in meaning, as the *m* of *mat* and the *b* of *bat* in English.

⁹ Grapheme, as defined by Oxford Dictionaries Language Matters is: The smallest meaningful contrastive unit in a writing system.



teachers need to help students to write the shape of the letter in the air using their hands, while they say the phoneme of the letter aloud at the same time.

In addition to touching and movement, the authors of this work recommend highlighting visual activities, as well. Thus, it is important to apply visual aids, like pictures, when teaching new words. To illustrate a sound, it is helpful to use hand and lip movements.

2.2.4 Multisensory Material in the classroom

McCull et al., suggest some material that can be applied when learning a new language in the classroom. They state that “[a]lmost anything that learners can handle can be used to engage and motivate them.” Here are some examples:



Puppets	Can be bought or made inexpensively, and can be used with learners of all ages provided that their 'street cred' is respected: e.g. by asking them to make up plays and dialogues that can be used to teach younger learners. Puppets can:	<ul style="list-style-type: none">- Carry the fiction that they can speak only the language that is being learned;- Be blamed for mistakes;- Provide a focus of attention which is appreciated by learners who are self-conscious and reluctant to speak, or those who find it difficult to make eye-contact.
Picture cards	Can be used:	<ul style="list-style-type: none">- Singly, in packs, in selected groupings, in sequences;- In combination with other elements, such as dice, spinners, text to provide practice with simple or more complex linguistic structures;- To stimulate various activities: speaking, listening, reading, writing, miming etc.;- To provide work for individuals, groups or the whole class.
Photocopiable visuals	Can be used:	<ul style="list-style-type: none">- Copied in whole sheets to serve as boards for games.-Copied, cut, and use in new combinations for games of the teacher's or pupils' devising.- Used to make a picture dictionary; this will both create a record work done and serve as a source of reference and revision.- Enlarge for use as flashcards, worksheets, aides-mémoire, wall displays, etc,- Provide a bank of visual material to illustrate a wide range of textual products.



Stile Trays	Can be used in conjunction with sheets of 12 visuals:	<ul style="list-style-type: none">- To encourage group or independent learning;- To teach the skills of self-assessment;- As a challenge, to see who can complete it the most quickly.
Language master systems and cards	Can be customized to provide a source of practice and revision of all the core vocabulary for a unit of work. They can:	<ul style="list-style-type: none">- Provide a model of correct pronunciation and/or spelling;- Provide, on one card, pictorial, audio and textual support for learning;- Provide practice in listening, reading and speaking- Encourage independent learning and self-assessment.
ICT (Information and communications technology)	It makes learning more active and multi-sensory using computers software that is rich in:	<ul style="list-style-type: none">- Visual- Auditory- Animated- Interactive and randomized approaches.



C HAPTER III

METHODOLOGY

3.1 Method

This project was carried out based on the deductive approach. According to Wilson, quoted in Dudovskiy's *Research Methodology* website, “[a] deductive approach is concerned with developing a hypothesis (or hypotheses) based on an existing theory, and then designing a research strategy to test the hypothesis.” In line with Snieder and Larner, quoted in the same website, “[t]he deductive approach follows the path of logic most closely. The reasoning starts with a theory and leads to a new hypothesis. This hypothesis is put to test by confronting it with observations that either lead to a confirmation or a rejection of the hypothesis.” Dudovskiy supports these ideas by saying that the deductive method implicates the creation of hypotheses which have to be tested during the research process. He also lists some steps that a study based on the deductive research has to follow:



- Deducing hypothesis from theory
- Formulating hypothesis in operational terms and proposing relationships between specific variables
- Testing hypothesis with the application of relevant method(s)
- Examining the outcome of the test, and thus confirming or rejecting the theory
- Modifying a theory when a hypothesis is not confirmed

Furthermore, this work was based on quantitative and qualitative analysis. According to Long-Crowell in Ridner and Wilson's website *Study.com*, quantitative research, which is especially used by social scientists, "is based on numerical data, which can be analyzed using statistics." It refers to those social phenomena that can be counted and interpreted in numbers. Moreover, she states that there are social issues that cannot be counted, so qualitative research is based on facts that can be gathered and interpreted by observation. "This type of research focuses on why and how social phenomena occur."

Based on the hypothesis formulated by the researchers in Chapter One, it is considered that the presented research is appropriate to carry out this project.

The deductive approach allowed researchers to know if what they hypothesized was right or wrong. Thus, this project consisted of the study of the theory of Multisensory Teaching Approach and the application of classroom



procedures with the 6th “B” graders to develop reading comprehension at Unidad Educativa “San Francisco.” These classroom procedures comprised a booklet containing readings and multisensory material to teach them. It was mandatory to apply a pre and a post test in order to test the hypothesis. Therefore, this work was based on quantitative and qualitative analysis. According to Long-Crowell in Ridner and Wilson’s website *Study.com*, quantitative research, which is especially used by social scientists, “is based on numerical data, which can be analyzed using statistics.” It refers to those social phenomena that can be counted and interpreted in numbers. Moreover, she states that there are social issues that cannot be counted, so qualitative research is based on facts that can be gathered and interpreted by observation. “This type of research focuses on why and how social phenomena occur.”

It is essential to mention that the main objective of this project was the creation of a booklet, as it was explained in the Chapter I. Hence, the success of this work does not depend on the results of the application of the booklet, but on the creation of it.

The information used in this project was gathered by doing internet search. The reading material was collected only from one source: *LearnEnglish Kids* website. This is a webpage from the United Kingdom designed for cultural relations and educational opportunities. Fortunately, each reading includes a subtitled video, so it was not necessary to look for the videos on other sites. The activities and techniques for the application were taken from some websites,



especially from the studies about the topic already described in the previous chapter.

3.2 Description of the requirement to apply the project

First of all, it was fundamental to get permission from the authorities of Unidad Educativa “San Fransisco”. Therefore, the researchers asked Dr. Fabián Rodas, who at that time was the Director of the English Language and Literature School of the Universidad de Cuenca, for a document addressed to Eng. Mario Jaramillo, Director of the institution, requesting to allow us to apply our graduation project in that institution. Then, it was necessary to talk personally to the Director, and the English teacher Mayra Guanolique, in order to explain to them what the project was about and at the same time ask for permission to apply it with the 6th “B” graders of the institution. It was necessary to talk to the classroom teacher, Lic. Maria Pauta, in order to ask her to contribute to the project with two hours of her classes. Fortunately, they all welcomed this proposal, and the Director received the document and expressed his approval. In that way, the permission for the entire project process was obtained in June 2014.

3.3 Description of the participants involved in the project

The participants of the whole project were twenty-six students from Unidad Educativa “San Fransisco.” There were seventeen girls and nine boys,



nevertheless; the gender was not taken into account to establish the results of the project. The age of the students ranged between nine (9) and eleven (11) years old. The students were “beginners,” and all of them were native Spanish speakers.

3.4 Description of pre-test

The design of the pre-test was very simple due to the students’ English level, known by the authors with the help of the English teacher, Lic. Mayra Guanoliقة. The pre-test consisted of six multiple-choice questions about a well-known story called “Little Red Riding Hood.” There were three choices in each question. Two of them were incorrect, so there was just one right answer.

The pre-test was designed in that way for two main reasons. The first was due to the level students had. Second and more importantly, because through multiple-choice questions it was easier to measure the results. The questions were structured in the past tense, except for the first one (present tense). Students already knew these structures. As it was already explained, the pre-test was very simple and designed specifically for the students involved in the project. (See Appendix 1)



3.4.1 Description of the pre-test application

The pre-test was applied on Tuesday, January 20, 2015. That day, it was explained to the students the presence of researchers in the classroom, the intention of the pre-test and the project itself. Instructions were given first in English and then in Spanish, in order to help students understand them well. For the application of the pre-test, it was necessary to include a reading (Little Red Riding Hood), which was simply taken from the website aforementioned without modification. This was just a flat reading and it was given to the students before taking the test.

The researchers gave the reading at 7:55 a.m. and they asked students to read it two times silently, without giving a time limit. After students had read the story twice they said they were ready to take the test. Therefore, the researchers asked students to keep the story and gave them the pretest. Children were asked to use a pen to answer the questions. It was an anonymous pre-test, so that students would feel confident. Then, it was explained to students that it did not matter the grade they received in this test, because it would not affect their grades in the English subject. This was done with the intention of preventing children from cheating.



3.5 Description of the post-test

A post-test was applied at Unidad Educativa “San Francisco,” The main objective of this test was to find out if the hypothesis established by the researchers, at the beginning of the project, was right or wrong. The content of the post-test was the same as the pre-test, in order to get more reliable results. Therefore, it had six multiple-choice questions, which were related to the reading “Little Red Riding Hood.” (See Appendix 1)

3.5.1 Description of the post-test application

The post-test was applied on April 1, 2015 to 6th “B” graders. It was administered a day after the last class. During the last class, students read “Little Red Riding Hood” again, but this time the reading was taught in a multisensory way before students took the test. The same reading and the test were used in order to determine if the application of the project influenced on the results of the post-test. The post-test was also anonymous in order to make students feel confident during the test. There was no time limit, and students answered the test in fifteen (15) minutes.

3.6 Design of the booklet

The first part of the booklet includes the general and specific instructions to use the booklet and the material together. Its second section is composed of



thirty (30) readings, which were selected from the LearnEnglish Kids website. These are interesting readings according to the student's level. Most of the stories are fables, which children enjoy reading. Each story includes a segment with keywords, so some words which might be difficult to understand are listed to introduce them in a meaningful way. In addition to the keywords, the readings contain scripts about the stories in order to perform the role plays. Some readings are a little longer, but they have been summarized in the scripts without changing their content. It was done with the intention of helping students to learn the lines and perform the role plays more easily. Finally, the booklet provides a CD which contains the videos of the readings in the same order in which they are listed in the booklet.

Please note that the stories and the videos were taken from *LearnEnglish Kids*, which is a British Council website. Therefore, some words are spelled and pronounced differently. Nevertheless, this did not, in any way, affect the learning process, (or the results of this project), as when we presented the materials, we spoke in American English. We introduced new vocabulary using flash cards and realia, verbalized the words, and had students repeat them after us. Since the differences in pronunciation and spelling did not change the content of the readings, children perfectly understood them.

It is important to clarify that the booklet itself is very simple. However, the way in which it was used made the class more efficient and entertaining.



3.7 Description of multisensory material

The selection and design of multisensory material were based basically on the booklet itself. Here is the material used during the application of the project:

- Visual material: flash cards, real objects, subtitled videos with audio.
- Auditory material: subtitled videos with audio.
- Kinesthetic-tactile material: scripts for the role plays, sculpting material, real objects.

It is important to clarify that sometimes the material is not sensorial itself; however, it can become a sensory activity. For example, a reading script which is performed by the students becomes a role play, and then it is a kinesthetic activity. Thus, it is very important to mention that classroom procedures based on multisensory approach involved not only multisensory material, but activities carried out with the material.

3.8 Description of the application of the booklet and the material

3.8.1 Time spent on the application

Classroom procedures, based on the Multisensory Approach, were applied two times a week during three weeks, from March 10 to March 31,



2015. Each class lasted a double period, which was 80 minutes a day. This time was sufficient to carry out all the procedures described below (reading aloud, presenting vocabulary, presenting a video, acting out a role play, and manipulating sculpting material). These 80 minutes were basically distributed in 20 minutes per activity. This period of time (20 minutes) was adequate to perform extra activities, such as icebreakers, activities suggested by the students, among others. Some time was spent to let children to move from their classroom to the audiovisual room. However, it was not a waste of time because, in that way, children had the chance to relax a little bit. Then, they were ready to carry out the next activity.

During the time that the project lasted, seven readings which represent the seven classes were taught. Each class consisted of the four main procedures presented below.

To conclude this point, it is important to mention that besides the four main activities, a picture dictionary activity was carried out as homework. Therefore, part of the project was done at home.

3.8.2 Methodology applied with the use of the booklet and multisensory material

The methodology for the use of the booklet consisted of five steps which were basically the same for all the classes. The researchers simply followed the



instructions already set out in the booklet. These classroom procedures are presented below:

- Reading aloud

The first step was to give students the reading at the beginning of the class. Then, the story was read aloud and slowly in order to help students listen to the right pronunciation of the words, so they were able to follow the reading with their eyes. It was necessary to read the story again, but a little faster.

- Presenting vocabulary

The second procedure involved some activities. To present the vocabulary, flash cards depicting new words were used. Also, real objects were presented to the students in order to help them better understand the meaning of some words. It is important to mention that sometimes it was necessary to read the story again while realia and flash cards were presented. It was done because children sometimes tended to get confused when a word was presented isolated from its context. Besides, as it is known, there are some words that have different meanings depending on their context.



- Presenting a video

After presenting vocabulary, subtitled videos of the stories were shown. Fortunately, the institution had an audiovisual room to perform this activity. Children enjoyed watching the videos, and they better understood the stories. The videos were short, so they were shown two times.

- Acting out a role play

The last activity consisted of performing a role play. The script for the role play was given at the beginning of the class with the reading. The lines were short and easy to memorize. To enact this activity, children were divided in groups according to the characters of the story. Finally, they performed the story.

- Manipulating sculpting material

During this activity, children had the chance to represent new words using sculpting materials, such as clay. In that way, it was known that children had learned the meaning of the words. This activity was carried out after all procedures, since it demanded more time. Although the participants of the project were not little children, they really loved this activity.



- Making a picture dictionary

This was an extra activity and it was not included in the instructions of the booklet. The picture dictionary was done in the children's homes. At the end of each class, a vocabulary sheet about the stories was given to the students. They had to draw the meaning of the words without using translation. Children were very creative, so they not only learned new words, but they also enjoyed this activity. (See Appendix 2)

For a better understanding of the application of this project, an example of a class is presented through pictures. (See Appendix 3). In addition to the pictures, the authors of this project provide a video of a class at the end of this paper. (See Appendix 4)



C HAPTER IV

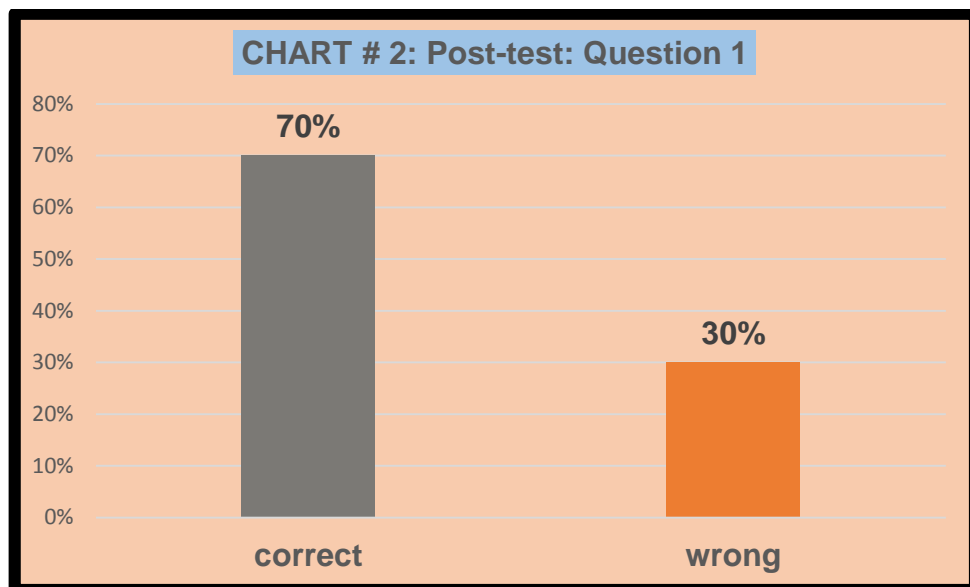
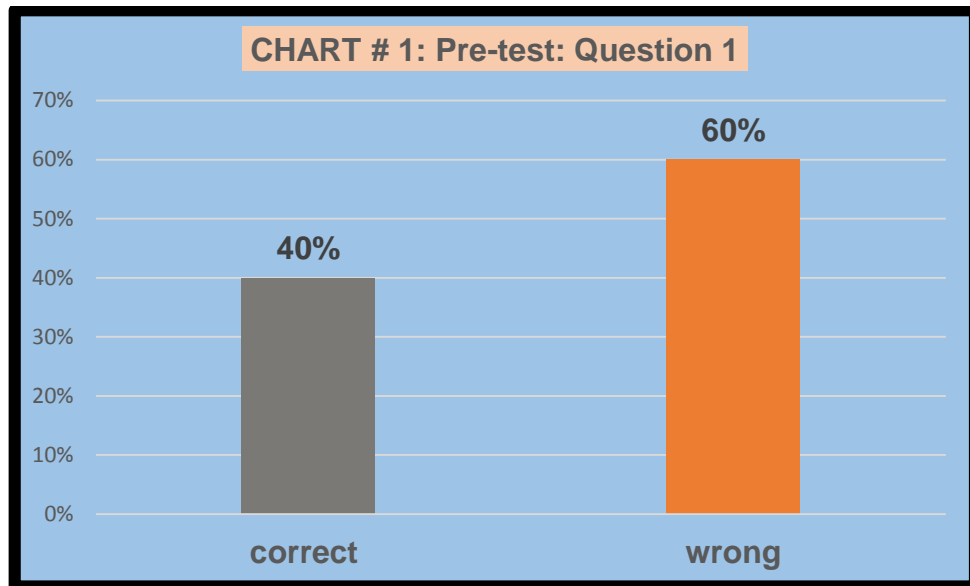
ANALYSIS AND INTERPRETATION

4.1 Results: Analysis and Interpretation of the pre and post-test

As it was previously mentioned, a pre-test and a post- test were applied to the 6th “B” graders at Unidad Educativa “San Francisco.” These tests consisted of six multiple-choice questions. In order to give a better explanation, a score was not given to the questions. Therefore, the percentages of the graphics correspond to the number of children who answered the questions either right or wrong.



1. Who are the characters of the story?

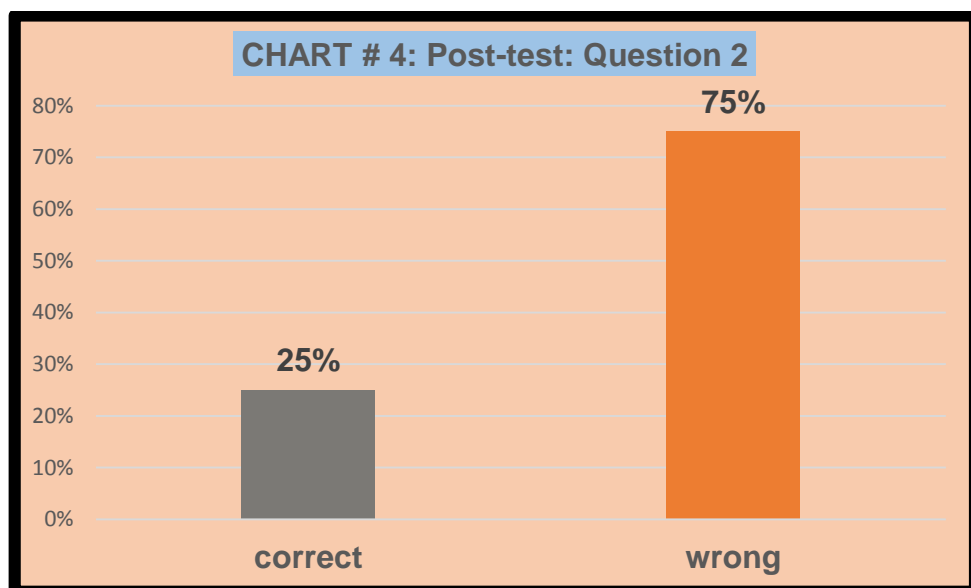
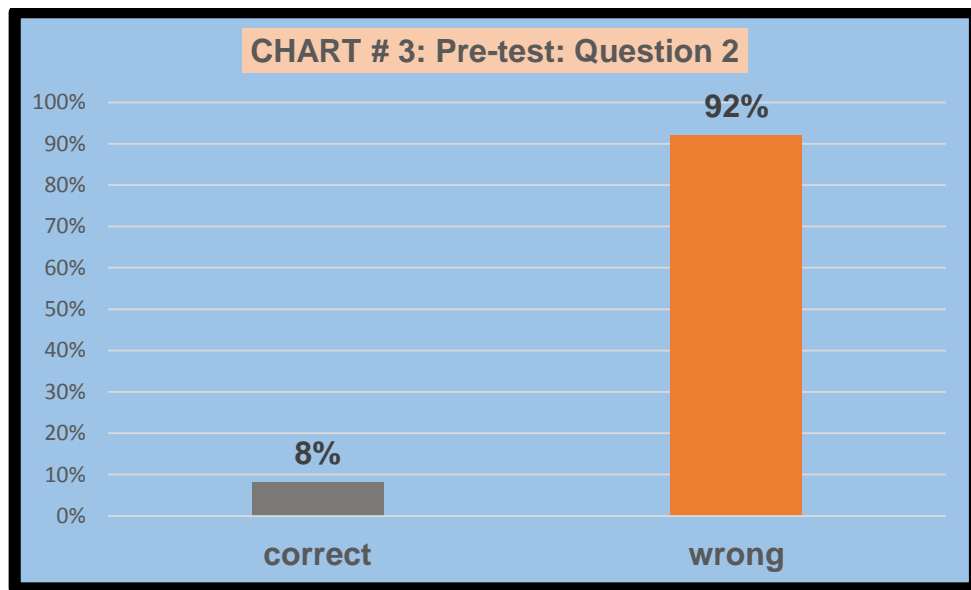


As one can see, in the first question, forty percent (40%) of the students answered correctly, while sixty percent (60%) failed in the pre-test. However, the results of the post-test show that most students, represented by seventy percent (70%), answered this question correctly and only thirty percent (30%)



failed to answer this question. The results show that after the application of the classroom procedures, based on the Multisensory Approach, there was a significant difference between the two tests.

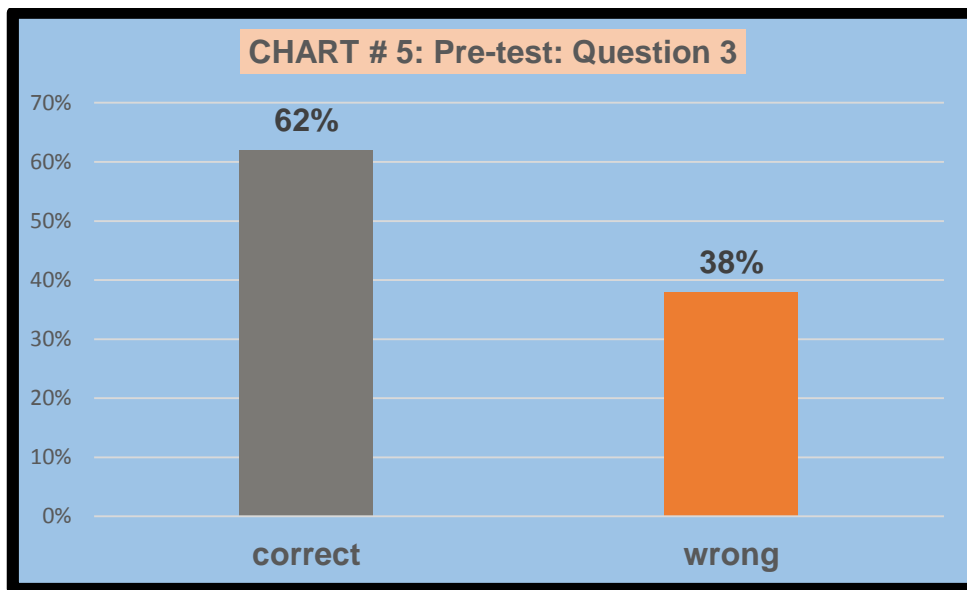
2. Who did Little Red Riding Hood visit?

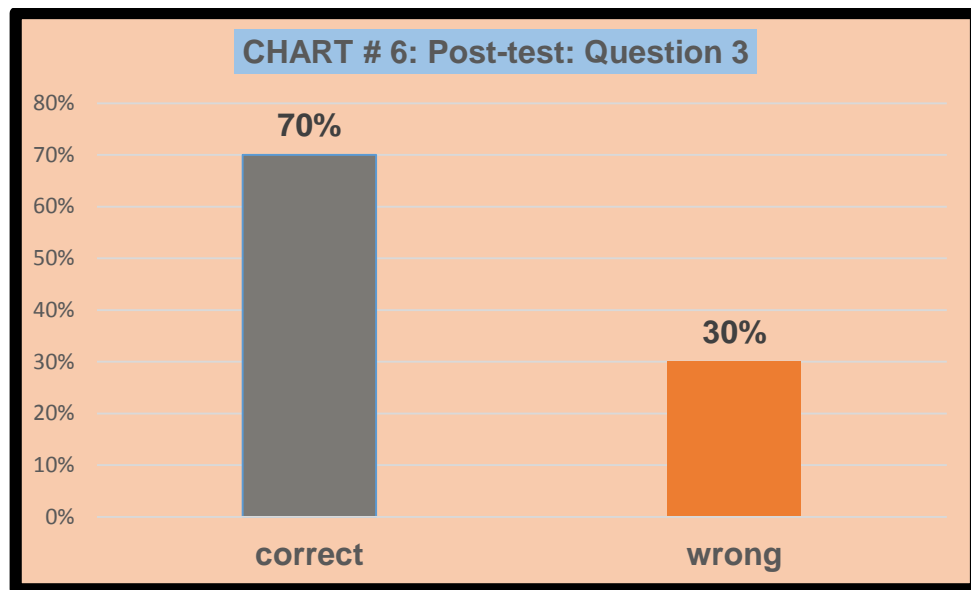




In this question, eight percent (8%) of the students chose the correct answer, while ninety-two percent (92%) chose the wrong answer in the pre-test. In the post-test, twenty-five percent (25%) of the children chose the right answer, but seventy-five percent (75%) still had problems, so they chose the wrong answer. It should be emphasized that although most children failed in both tests, in the post-test, there were fewer students who responded incorrectly to this question.

3. What did Little Red Riding Hood have in her basket?

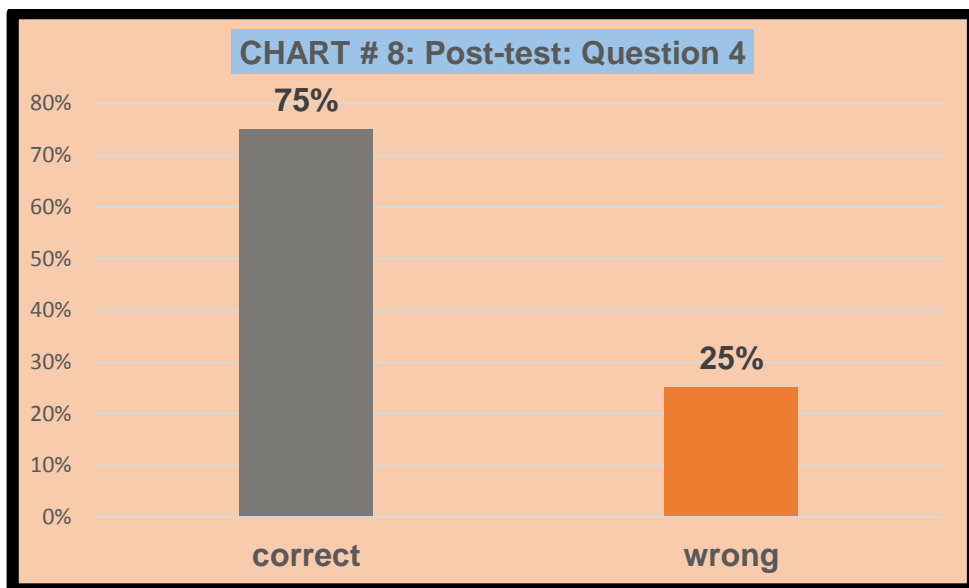
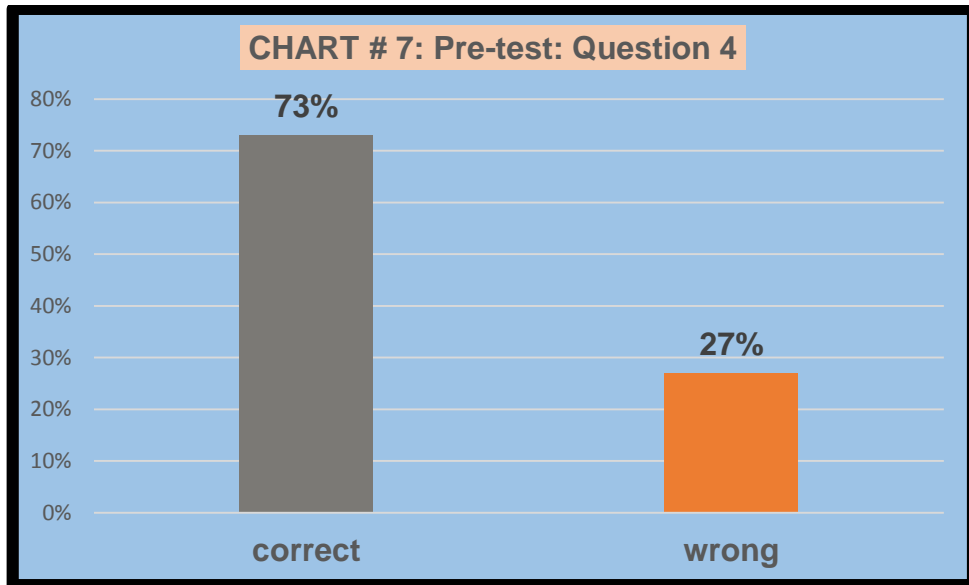




Regarding the third question, sixty-two percent (62%) of the students answered correctly, while thirty-eight percent (38%) did not in the pre-test. In the post-test, they did even better. Therefore, seventy percent (70%) answered right and thirty percent (30%) responded to this question incorrectly. Once again, the results show that the application of multisensory instruction helped students in developing reading comprehension.



4. Who did Little Red Riding Hood meet with on her way to her granny's house?

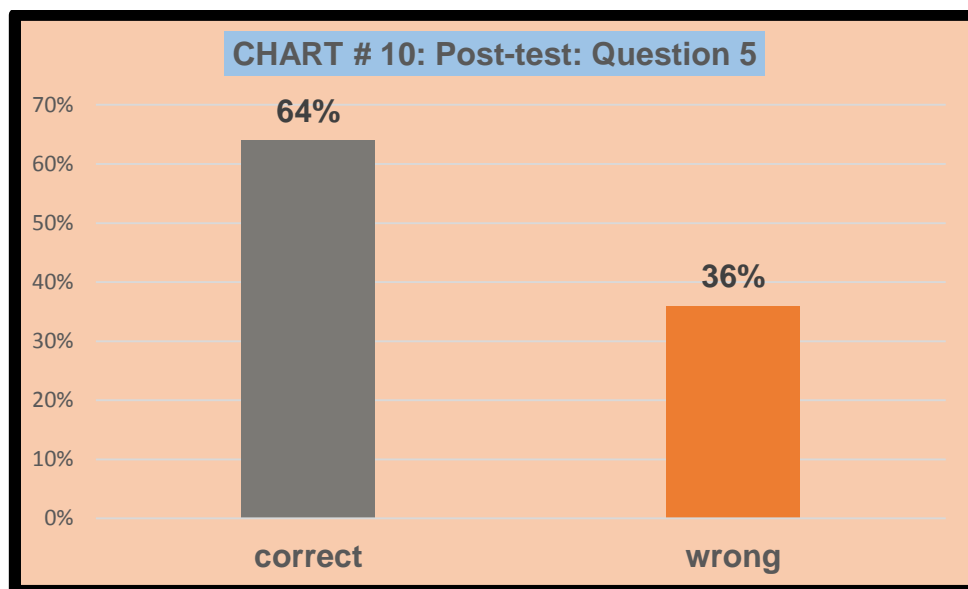
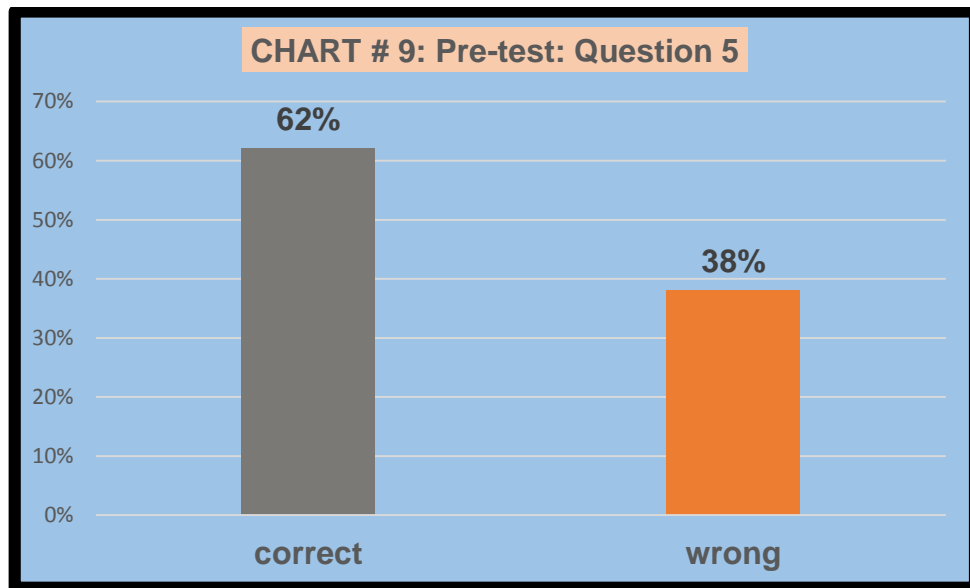


These graphs demonstrate that in the pre-test most of the students chose the correct option, equivalent to seventy-three percent (73%), while twenty-seven percent (27%) failed this question. As you can see, students progressed



a little bit. After taking the post-test, seventy-five percent (75%) chose the correct answer, and twenty-five percent (25%) answered incorrectly.

5. What did the wolf climb into?

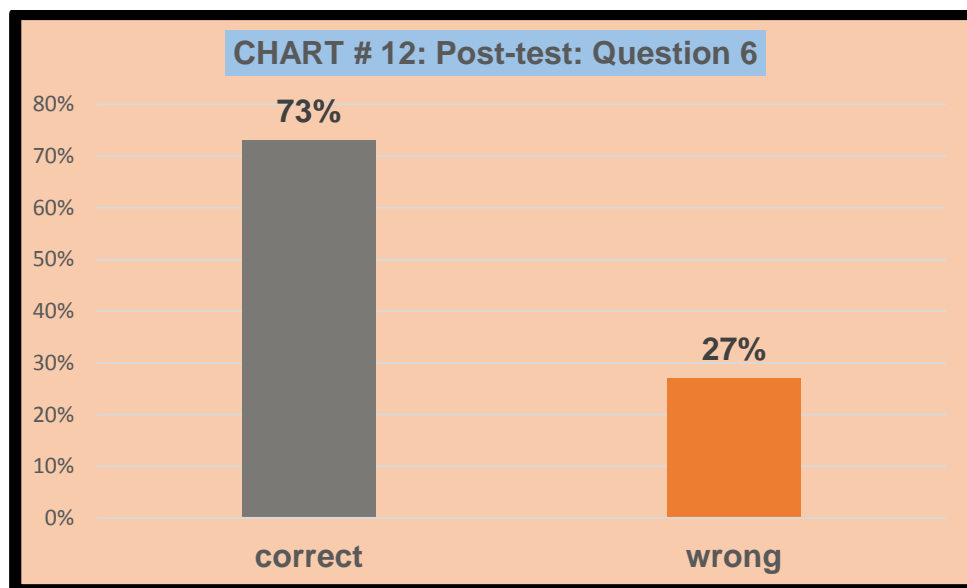
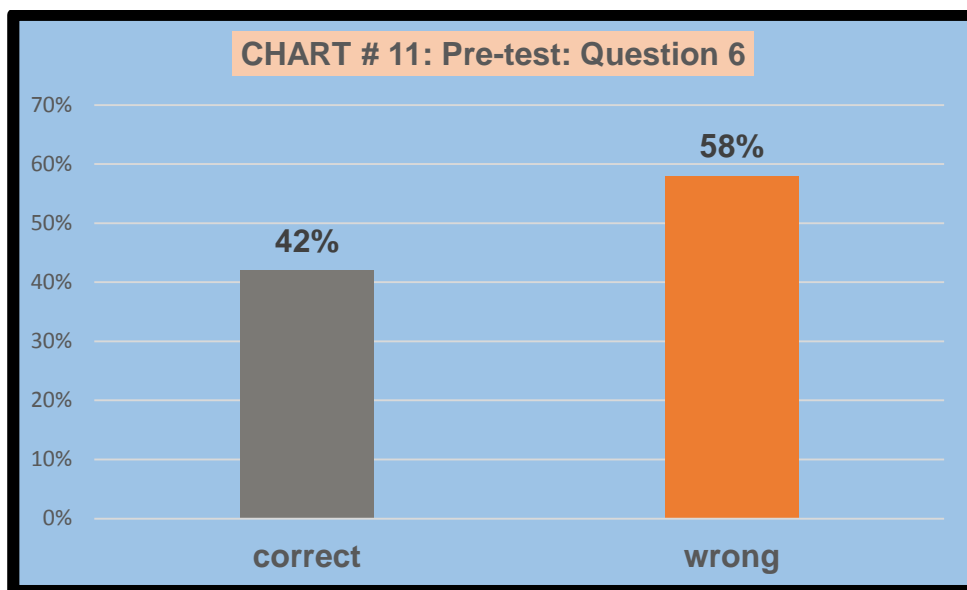


These graphs show that in the pre-test sixty-two percent (62%) of the students answered correctly, and thirty-eight percent (38%) failed this question.



In the post-test, sixty-four percent (64%) of the children chose the right answer, while thirty-six percent (36%) answered incorrectly. As it can be noticed, students did not demonstrate a significant improvement in the post-test regarding this question. However, they did not obtain a lower performance.

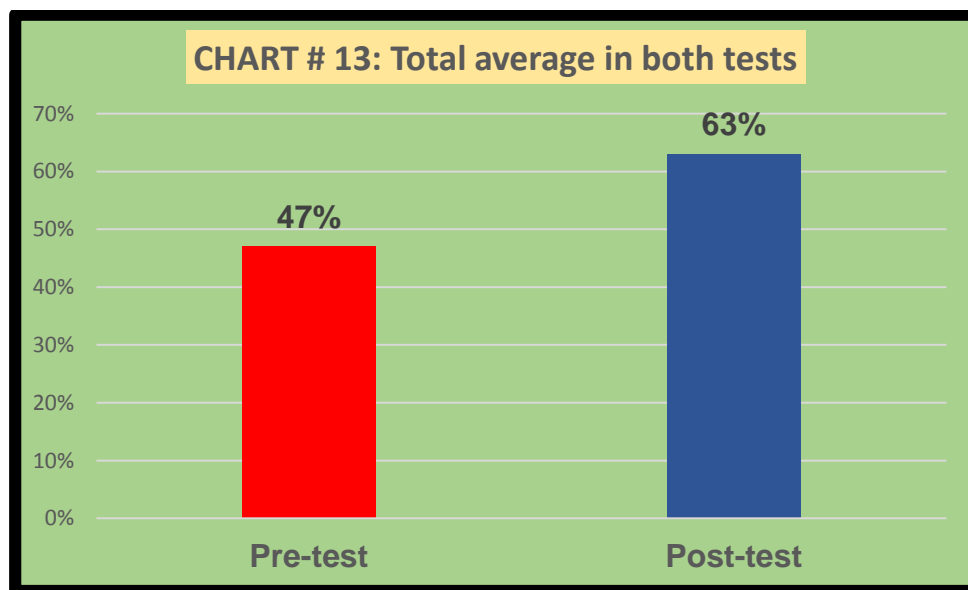
6. Who did help Little Red Riding Hood?





As one can see, in these graphs, in the pre-test most of the students chose the correct answer representing forty-two percent (42%), while fifty-eight percent (58%) of the students chose it incorrectly. On the other hand, in the post-test, students showed satisfactory result as seventy-three percent (73%) of the students chose the correct answer, and twenty-seven percent (27%) did not answer appropriately.

4.2 Total results of pre-test and post-test



In this graph, all of the results of the pre and post-test can be seen. These results were obtained through a quantitative analysis, which allowed the researchers to measure the outcome of this project in numbers. It is evident that the total average of the students who answered correctly in the pretest was forty-seven (47%). Meanwhile, in the post-test the students who responded



appropriately represent sixty-three percent (63%). Thus, it can be said that this project aided students in developing reading comprehension.

In addition to the results established above, this project also indicated the emotional state of the students at the time the tests were administered. Since feelings, emotions, and attitude cannot be measured by a quantitative analysis, a qualitative analysis was used to comment on it. Consequently, the researchers also focused on how children felt in each class. Thus, they realized that during the application of the classroom procedures, based on the Multisensory Approach, students felt comfortable when doing all the activities. They always had a positive attitude in reading the stories and learning through the multisensory material. They not only enjoyed their English classes, but also improved their performance in reading comprehension.



C HAPTER V

CONCLUSION AND RECOMMENDATIONS

The literature review which this work is based on is the main support of the development of it. It explains the importance of teaching classroom procedures, based on the Multisensory Approach. The results compiled during this research assisted the 6th “B” graders at Unidad Educativa “San Francisco” in developing reading comprehension skills while learning through multisensory activities in EFL environments. The main aspect of it is to help students to comprehend the real context of what they are reading, not only at school but also outside the classroom.

That is why it should not be overlooked; it is essential to comprehend the meaning of readings. Sometimes, students do not understand very well the content of a reading in Spanish and it is even worse in English. Therefore, we have to think about how to motivate students to learn throughout multisensory modalities and escalate their reading comprehension abilities. This will help



them to understand the proper meaning of whatever they read without changing the context or creating confusion. Basically, learning through the Multisensory Approach is beneficial for every single person because it is one of the best methods to improve and join people in the world through the appropriate use of language.

For these reasons, the purpose of the Multisensory Approach is to improve their performance while reading. In addition, students are more stimulated to learn while doing these activities.

It was believed that English classes at Unidad Educativa “San Francisco,” need to be more effective, especially in the students’ reading comprehension skills. Therefore, the ideal would be to introduce this Multisensory Approach in every session. On the other hand, we noticed that there is no enough teaching material that teachers can use. It is fundamental to clarify that neither this Chapter, nor any other part of this project, has the intention of criticizing the learning program of the above mentioned institution. On the contrary, the purpose of this research was to aid the teacher’s job by providing her with extra material that can be used as a complement to the English classes.

Since this project worked efficiently, the researchers recommend the use of this booklet in EFL environments. As it was previously explained, this material was designed especially for teaching reading comprehension. It



contains interesting stories and instructions to carry out multisensory activities, such as watching videos and performing role plays, among others. In addition, these activities allow students to learn and use the target language more confidently.

To conclude, the booklet has been developed for the English classes to improve the students' reading comprehension skill of the students. It is necessary to mention that teaching through Multisensory techniques can be applied even in Spanish classes. Therefore, the teachers who consider this booklet useful should look here for material and activities for their classes. Moreover, the authors of this work highly recommend that teachers implement this multisensory material by adding activities involving the children's senses of taste and smell. Thus, the five senses will be used in a single class which will result into more effective learning.



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A PPENDICES

APPENDIX 1

Pre and Post-test Template

Test administrated to the 6th “B” grade at Unidad Educativa “San Francisco.”

The following test has the purpose of determining students’ reading comprehension level. The results will be used as basis for the application of a graduation project entitled “Classroom procedures based on the Multisensory Approach for 6th graders to develop Reading Comprehension at Unidad Educativa San Francisco.”

Age: _____

Answer the following questions about the reading.



1. Who are the characters of the story?

- a) Little Red Riding Hood, her granny, her boyfriend, the woodcutter, and the wolf
- b) Little Red Riding Hood, her granny, her mother, the woodcutter, and the wolf
- c) Little Red Riding Hood, her granny, her mother, her best friend, and the wolf

2. Little did Little Red Riding Hood visit?

- a) the wolf
- b) her granny
- c) the woodcutter

3. What did Little Red Riding Hood have in her basket?

- a) an ice cream cone
- b) a nice cake
- c) an apple

4. Who did Little Red Riding Hood meet with on her way to her granny's house?

- a) the wolf
- b) the woodcutter
- c) her mother

5. Where did the wolf get into?

- a) granny's bed
- b) granny's kitchen
- c) granny's closet



6. Who did Little Red Riding Hood help?

- a) her father
- b) the woodcutter
- c) her boyfriend

Thank you for your great help!



APPENDIX 2

Picture Dictionary Template

Picture dictionary designed for the 6th “B” grade from Unidad Educativa “San Francisco.”

PICTURE DICTIONARY

Name: _____

Jack and the beanstalk

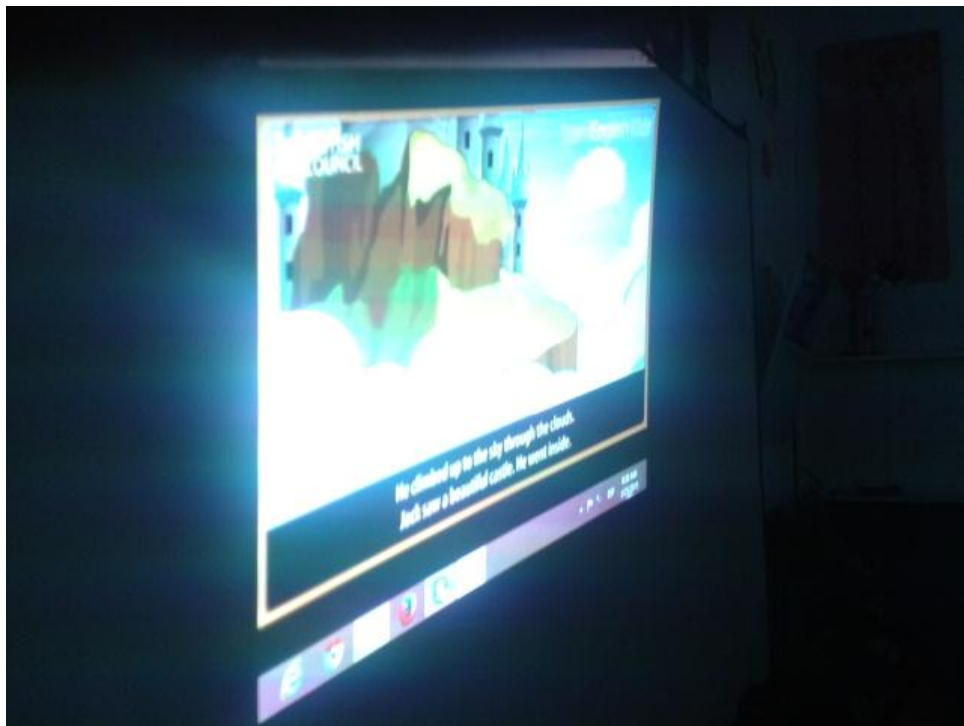
harp	
beans	
climb up	
climb down	
sky	
clouds	
cupboard	

APPENDIX 3

Example of a Class

Classroom procedures: reading aloud, presenting vocabulary, presenting a video, acting out a role play, manipulating sculpting material, and making a picture dictionary.

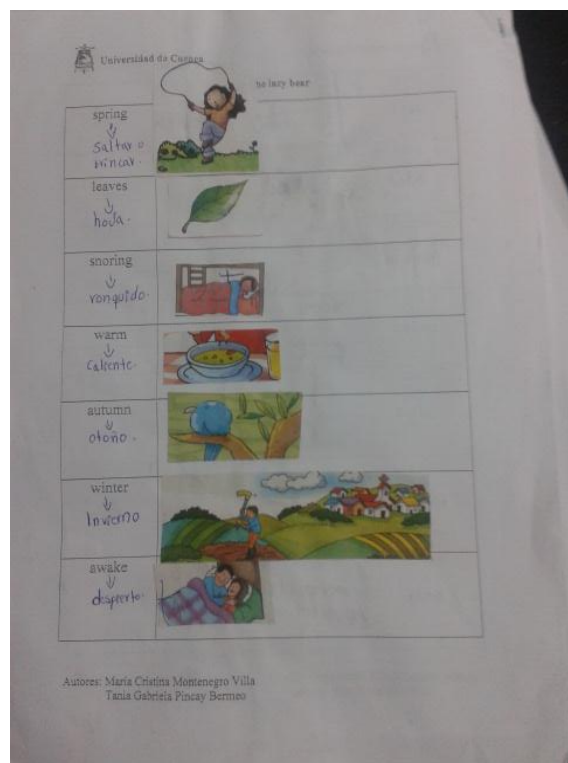
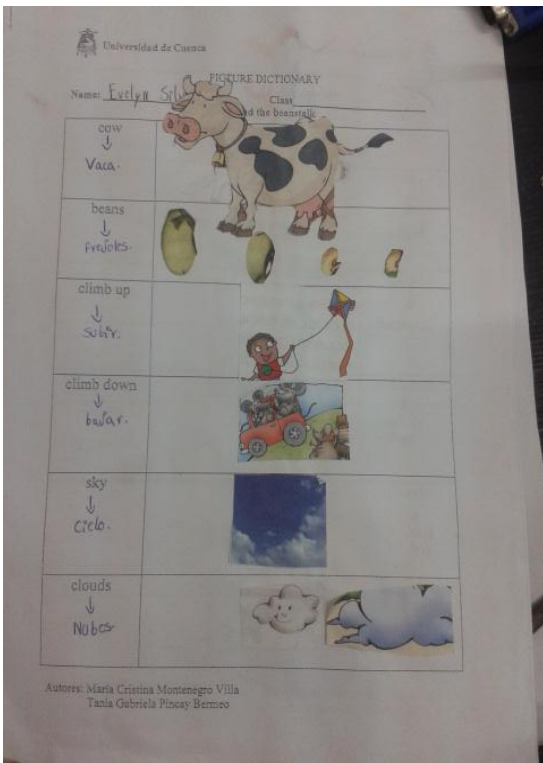


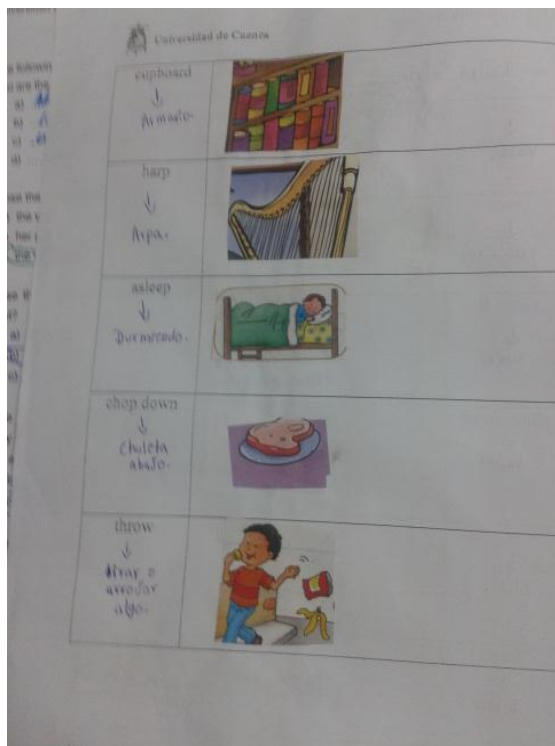
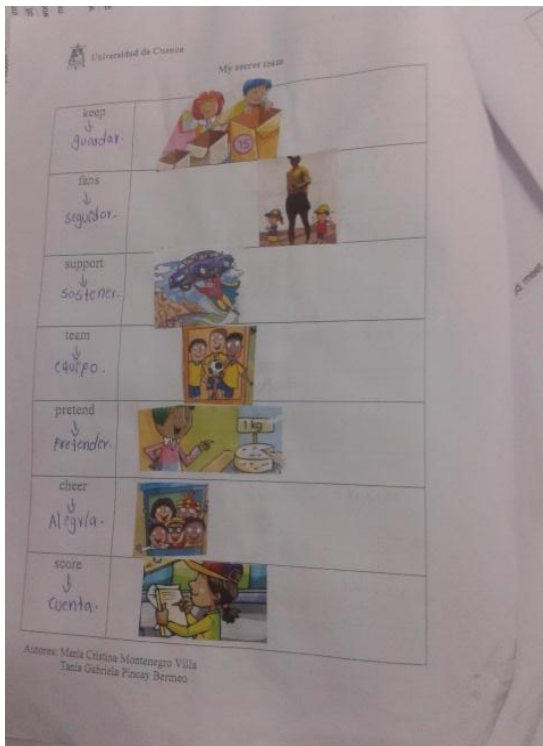














APPENDIX 4

Video of a Class Application