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Critical Thinking Skills Development and English Improvement
through Reading and Writing Activities at Lower-Intermediate Level
in Sagrados Corazones High School in Cuenca, Ecuador

Tesis previa a la obtención del
Título de Magíster en Lengua
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**Resumen**

El pensamiento crítico es una competencia necesaria en el entorno educativo actual y el aprendizaje de un idioma no es una excepción. El presente estudio investiga el impacto de tareas de lectura y escritura en el desarrollo de habilidades de pensamiento crítico y en la mejora del aprendizaje del idioma Inglés, adaptando historias del texto *American More! 2*. El experimento se llevó a cabo en una clase de inglés como lengua extranjera con un nivel bajo-intermedio en el Colegio "Sagrados Corazones" en Cuenca, Ecuador, durante el segundo semestre del período lectivo 2012-2013. Los participantes fueron estudiantes de Décimo Año de Educación Básica de 14 a 15 años de edad. La investigación utilizó el método experimental – cualitativo y estadístico aplicado a la enseñanza de un grupo de control y un grupo experimental los mismos que poseían un nivel relativamente similar en términos de competencia en el idioma. El grupo de control fue instruido como lo sugiere el libro del profesor. El grupo experimental fue instruido a través de un esquema de tres etapas. Los datos fueron recolectados a través de tres pruebas y un cuestionario. El desarrollo del pensamiento crítico fue medido de acuerdo a los niveles de la Taxonomía de Bloom. La mejora del idioma se midió a través de una rúbrica diseñada por el investigador. Los datos analizados cualitativa y estadísticamente demostraron que las tareas basadas en actividades de lectura y escritura tuvieron un impacto positivo en el desarrollo del pensamiento crítico y la mejora del idioma inglés.

**PALABRAS CLAVE:** pensamiento crítico, habilidades, tareas de lectura y escritura, inglés, desarrollo, mejoramiento, impacto, Taxonomía de Bloom.

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**Abstract**

Critical thinking has become a necessary competence in the educational environment of today and language learning is no exception. The present research study set out to develop critical thinking skills and improve English language learning by adapting pre-existing course materials, namely, stories in the textbook *American More! 2.* The research itself aimed at investigating the impact of task-based reading and writing activities on critical thinking development and English language improvement. The treatment was carried out in a lower-intermediate EFL class at "Sagrados Corazones High School" in Cuenca, Ecuador, during the second semester of 2012/13. The participants were Grade 10 female students aged 14-15. The research followed the experimental-qualitative-statistical method applied to the teaching of one control group and one treatment group. The groups were relatively similar in terms of language proficiency. The control group was taught in a straightforward manner as suggested by the Teacher's Book. In contrast, the treatment group was taught through a three-phase lesson framework and involved ten stories adapted from the regular textbook. The data were collected through three tests and a questionnaire. To measure critical thinking development, the students' answers were categorized according to Bloom's Taxonomy levels. Language improvement was measured through a rubric designed by the researcher. The data were qualitatively and statistically analyzed. The findings of the study demonstrate that task-based reading and writing activities do have a positive impact on critical thinking development and English language improvement.

**KEY WORDS:** critical thinking, skills, task-based reading and writing activities, English, development, improvement, impact, and Bloom´s Taxonomy.

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**Dedication**

I would like to dedicate this work to my beloved family members.

They have made many sacrifices to give me the

opportunity to accomplish my goal.

To all my best friends for their moral support

and encouragement especially to

that very special person (ILYSM).

Thanks to you all.

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**Background and Justification**

The central goal of the Ministerio de Educación in Ecuador is to educate critical thinkers that are able to face situations and ideas critically. With this purpose in mind, a Didactic Course based on the adaptation of strategies, tools and concepts from *The Miniature Guide to Critical Thinking* written by Paul and Elder has been developed. Ecuadorian teachers from different subject areas (including this researcher) attended a course that provided strategies to develop students' critical thinking skills. This research project, therefore, attempts to apply and adapt the strategies presented in the course to the teaching practice in EFL classrooms. The aim was to apply task-based reading and writing activities in EFL instruction to develop critical thinking skills and improve English proficiency. This research is an attempt to develop critical thinking skills and improve English by adapting pre-existing materials such as textbooks.

At present, critical thinking is recognized as an important competence for students to acquire academic language. The present research is a starting point for future Ecuadorian research studies. At the same time it may create awareness in teachers about their responsibility to develop critical thinking with their students rather than making them pass from one educational level to the next without adequate critical skills.

The research was carried out at Sagrados Corazones High School in Cuenca, Ecuador. It is a private school with considerable emphasis on the teaching and learning of English. As a teacher-researcher, I was aware of the English level of the participants because all students completed a placement test at the beginning of the school year. The research took place in the second semester of 2012/13 when the students had ample practice in communicative activities based on the textbook *American More! 2.*

## Introduction

Since language development and thinking are closely related, the teaching of higher-order thinking skills should be an integral part of the English curriculum. This research project attempts to bridge the gap between theories and instructional practice through the implementation of task-based reading and writing activities while teaching English as a Foreign Language. Critical thinking in reading and writing activities expands the learning experience and makes language more meaningful for learners.

## 1. Problem Statement

The development of critical thinking skills is one of the timely issues in Ecuadorian education and particularly at the Sagrados Corazones High School in Cuenca. This topic has been studied and analyzed by most Ecuadorian teachers through Creamer's *Didactic Guide to Critical Thinking* related to different subject areas in the curriculum. However, so far there has not been much research devoted to developing critical thinking skills in the context of foreign language instruction in Ecuador. The concept of critical thinking is relatively new to Ecuadorian teachers and, consequently, it is something that our students do not routinely do. Thinking skills provide students with the tools required to become active participants in their classrooms, schools, and community. The development of such skills makes English learning meaningful; it implies that if students learn to think more critically, they will become effective readers, writers, speakers and listeners because each of these activities requires well-reasoned thought.

Before the experiment, students in the Sagrados Corazones High School in Cuenca, Ecuador, have been found to be quite weak in identifying different perspectives and giving valid reasons for supporting their arguments. The development of these higher-order thinking skills has become central to the Ecuadorian Education Standards. The Ministry of Education of Ecuador recognizes the necessity of an important change in teachers' methodologies in order to reach the Education Standards of Quality (5). The quality of these standards is assessed through the SENESCYT admission exam in order

to ensure that high school students gain fair access to higher education. This exam assesses the students' cognitive abilities and requires reasoning and abstract thinking skills. It is evident that high school students need to develop critical thinking skills. They should be able to integrate new and previous knowledge, apply the information obtained to new contexts, learn from reflection, make decisions as well as be committed as critical members of society.

However, apart from the students in Sagrados Corazones High School, a research study carried out at Universidad de Guayaquil in Ecuador by using a survey showed that a) teachers do not frequently use strategies that encourage critical thinking in their classes, and b) students cannot easily recall information when expressed orally or in the written form. For these reasons a) teachers should provide more critical and reflective classes, b) teachers should organize the content of their classes in order to develop critical thinking skills (Parra 81-82). The purpose of this study therefore was to develop students' critical skills and language proficiency at lower-intermediate level through reading and writing activities.

The reasons above led to the following hypothesis, objectives and research questions:

## 2.  Hypothesis

Task-based reading and writing activities in EFL instruction will develop students' critical thinking skills and improve their English proficiency at the same time.

## 3.  Aim and Objectives

### 3.1 Aim

To develop Grade 10 students' critical thinking skills and improve their English through the application of task-based reading and writing activities.

### 3.2 Objectives

3.2.1 To introduce critical thinking strategies using the *American More! 2* textbook and pilot how they can be adapted to develop critical thinking skills.

3.2.2 To apply task-based reading and writing activities to Units 6, 7 and 8 of the textbook over a period of 30 lessons.

3.2.3 To develop critical thinking skills and improve English proficiency in reading and writing as a result of the application of the above reading and writing activities in the EFL classroom.

## 4. Research Questions

4.1 Can learners develop critical thinking skills and improve their foreign language learning via task-based foreign language instruction in reading and writing?

4.2 Can foreign language instruction in reading and writing be used to improve critical thinking?

## 5. Delimitation of the Research

The research study focused only on certain reading and writing activities that could be used for the development of critical thinking. The activities were based on the stories presented in the course book entitled *American More! 2* by Puchta. The material was taught to lower-intermediate, Grade 10 students at a private school in Cuenca, Ecuador. The participants of the study were female students aged 14-15. Two intact groups were chosen to participate in the research project. They were originally set up based on the placement test taken at the beginning of the school year and as a result, the groups were relatively similar in terms of language background and language learning experience. They had seven 45-minute English classes per week. The treatment was applied during the second semester of the school year (four months in total) with three classes of 45 minutes per week and seven classes for the assessment part of the study. The fact that the research was carried out at a private school could affect its generalizability.

## 6. Research Methodology

To establish the causal effect of task-based reading and writing activities on critical thinking skills development, this research followed thesis type 2 and the experimental-qualitative-statistical method.

The impact of the treatment was assessed and analyzed from two aspects: the students' critical thinking skills development and the improvement in their English through a pre-test, mid-test and post-test. The operationalization of critical thinking development was based on Bloom's Taxonomy. The participants' answers were categorized according to Bloom's Taxonomy levels and tally counted before, during, and

after the treatment. It was statistically and qualitatively analyzed. The improvement in English proficiency was assessed through the writing samples provided by the students at the end of each test using the rubric designed by the researcher, focusing on grammaticality and vocabulary use. Finally, a ten-question answer sheet with dichotomous and open-ended questions aimed at finding out the students' perceptions regarding their improvement in reading and writing skills was administered.

The treatment consisted of 10 stories that were presented to the students during the second semester of the school year (four months in total) with three classes of 45 minutes per week. This means 30 classes of instruction. The assessment section used seven classes including the questionnaire. This means the treatment lasted 37 periods of class. The treatment was administered through three-phase lessons: anticipation, building knowledge and consolidation.

The present study is divided into four chapters: Chapter I: Literature Review, Chapter II: Methodology, Chapter III: Data Analysis, Description and Interpretation and Chapter IV: Conclusions and Recommendations.

**Chapter I: Literature Review**

### 1. Overview

The following chapter provides an overview of the topics related to the research project undertaken and aims at offering an insight into the specifics associated with critical thinking and higher-order thinking skills. A number of definitions of critical thinking and the ways it is applied to cognitive domains in teaching will be reviewed. Teachers can promote higher order thinking skills in the cognitive domain through the application of Bloom's Taxonomy in their teaching and learning methods. The importance of teaching critical thinking skills is highlighted. After providing the theoretical aspects, the instructional implications are considered in a discussion about the best approach to teaching critical thinking skills. The close relationship between language development and cognition is established to support the teaching of critical thinking in EFL instruction. Arguments are put forward to support the idea that critical thinking could be embedded in the EFL curriculum. Task-based instruction is one of the instructional strategies to be presented as a potentially useful strategy. Finally, the application of critical thinking in reading and writing activities through a three-phase lesson is also analyzed.

### 2. Critical Thinking

The need for critical thinking (CT) is widely acknowledged. However, there is no consensus as to what exactly is meant by the term itself.  Lai, in her review of the literature suggests that critical thinking has its roots in three academic disciplines: philosophy, psychology and education (4).  These disciplines have given rise to three different approaches: the philosophical approach, the psychological approach and the educational approach.

The philosophical approach focuses on the "qualities and characteristics of the hypothetical critical thinker rather than on the behavior or actions the critical thinker can perform" (Lai 4). As for the psychological approach, Sternberg says that cognitive psychologists tend to focus on how people think in contrast with how they could or should think under ideal conditions (qtd. in Lai 7). The psychologist Daniel T. Willingham defines a critical thinker as one armed with the capabilities of "seeing both sides of an issue, being open to new evidence that disconfirms your ideas, reasoning

dispassionately, demanding that claims be backed by evidence, deducing and inferring conclusions from available facts, solving problems and so forth" (qtd. in Lai 8).

Finally, the educational approach is closely related to Benjamin Bloom's Taxonomy of information processing skills (Lai 8). Most educational practitioners use this hierarchical construct when they come to teaching critical thinking skills. Bloom's Taxonomy focuses hierarchically on the cognitive domain identifying six levels that involve knowledge skills at the bottom and evaluation skills at the top. In general, researchers agree on the specific skills which are: identifying assumptions, interpreting, predicting, analyzing arguments, claims or evidence, making inferences, using inductive or deductive reasoning, judging or evaluating as well as making decisions or solving problems (Lai 9).

The main characteristics of thinking critically were summarized by an expert panel of the so-called "Delphi Report" (7):

We understand critical thinking to be a purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based. CT is essential as a tool of inquiry. As such, CT is a liberating force in education and a powerful resource in one's personal and civic life. ("The Delphi Report" 2)

The author of the executive summary of the above report, Peter A. Facione, goes on to sum up the mental and personal characteristics of someone employing critical thinking skills:

The ideal critical thinker is habitually inquisitive, well informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit. Thus, educating strong critical thinkers means working toward this ideal. ("The Delphi Report" 2)

### 3. **Critical Thinking Cognitive Skills**

Critical thinking as applied to the cognitive domain is defined by Halpern as "the use of those cognitive skills or strategies that increase the probability of a desirable outcome. It is purposeful, reasoned, and goal-directed. It is the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions" ("Critical Thinking Workshop" 1).

In other words, thinking critically is to evaluate decisions and solutions and these are the outcomes of thought processes. However, Lipman has a different perspective on critical thinking outcomes. He considers that outcomes are not merely limited to solutions and decisions since these outcomes are too narrow to define critical thinking. Lipman states that wisdom is the outcome of intelligent and good judgment which is based on certain criteria, one of which is to think critically (38).

Most of the reviewers state that the cognitive domain entails the following mental abilities: interpretation, analysis, evaluation, inference, explanation, and self-regulation. These mental abilities or cognitive skills stimulate higher levels of thinking, which are essential to becoming critical thinkers. Each of the six skills are associated with sets of sub-skills; for example, analysis would involve the capability of examining ideas, identifying and analyzing arguments ("The Delphi Report" 6).

Facione refers to a study that was carried out at Pennsylvania State University to determine what a group of 200 policy-makers, employers, and faculty members perceived as the core critical thinking skills. The findings of the study confirmed the expert consensus on the above-mentioned mental abilities as those lying at the heart of critical thinking ("Critical Thinking: What It Is" 5).

However, critical thinking is not only solving problems or thinking for a purpose. Facione states that "critical thinking can be a collaborative and non-competitive endeavor" ("Critical Thinking: What It Is" 4). This means that students acquiring critical thinking skills can work together and cooperate to achieve a common purpose.

Bailin et al. state that interaction in pro-social ways and during group discussions promotes critical thinking by encouraging and respecting the contribution of others (qtd. in Lai 34). In the same vein, Thayer and Bacon emphasize that cooperative learning is

important since it enhances critical thinking through the learners' relationships (qtd. in Lai 34).

Based on 117 studies about instructional interventions aimed at promoting and improving critical thinking skills, Abrami et al. found a 0.10 difference between the presence and absence of collaboration. This means that collaborative learning as an instructional approach has a small but significant effect on critical thinking. (1119).

4. **Bloom's Taxonomy**

Critical thinking, as mentioned before, is applied to cognitive skills and seeks to promote higher-order thinking skills. In education, teaching and learning methods need to improve these cognitive skills. In order to achieve this, a classification system (taxonomy) that arranges the relationship among the higher-order thinking skills was needed (Nelson). Bloom and a committee under his leadership created what became known as Bloom's Taxonomy "in order to promote higher forms of thinking in education such as analyzing and evaluating, rather than just remembering facts" (Paul et al.). This taxonomy identified three domains of learning: cognitive or mental skills, affective or emotional areas and psychomotor or physical skills (Paul et al.).

Bloom's Taxonomy has gained the most attention among educators since it is task-oriented and easily measurable (Nelson). The base of this study is oriented to the cognitive domain which considers knowledge as the base of the intellectual abilities and skills. The taxonomy is based on six categories starting from the simplest (knowledge), which must be mastered before the development of the most complex skills (evaluation) (Paul et al.). Bloom's Taxonomy emphasizes that "higher-order thinking can be accomplished after the lower-order skills are put in use" (Stratton 39).

Each category has a hierarchical function seen in a pyramid arrangement that is a widely recognized model of learning (see Annex 1). Knowledge is at the bottom level of the pyramid followed by comprehension, application, analysis, synthesis, and evaluation (Paul et al.). The latter three skills, namely, analysis, synthesis, and evaluation are considered part of higher-order thinking. According to Stratton the distinction between higher and lower order thinking skills is "that whereas lower-order thinking involves memorization, simple understanding, and use of passively accepted information, higher-

order thinking involves a more active, more creative processing of information into relatively original ideas" (38).

In the cognitive domain, "knowledge" is the recall of information while "comprehension" implies understand the meaning and stating a problem in one's own words. The "application" level applies what was learned in new situations. At the next level, a whole is separated into concepts or component parts constituting the "analysis" level. In contrast, the "synthesis" level builds a structure or puts parts together to form a whole. Finally, the most complex level, which is termed as "evaluation", makes judgments about the value of ideas or materials (Paul et al.). Evaluation is the most exalted of higher-order thinking. Evaluation consists of making judgments based on ideals, rules, and principles about quality and whether something is good, bad, better, worse, best or worst (Stratton 38).

Veeravagu et al. carried out a quantitative study to explore the relationship between the students' performance and the level of thinking processes as defined by Bloom's Taxonomy when answering a reading comprehension paper. The level of the questions was designed according to Bloom's Taxonomy (205). Fifty Part 3 diploma students were willing and available to be studied. Their English language proficiency ranged from low-intermediate to high intermediate. The data were collected through a set of thirty-five multiple choice reading comprehension questions and were then quantitatively analyzed using Bloom's Taxonomy. According to the results obtained, the participants' performances varied, depending on the level of the thinking process involved. The higher scores were obtained in low levels of the thinking process (knowledge, comprehension, and application) while the most complex levels (synthesis and evaluation) were characterized by lower scores. For instance, 66% of the students responded to the knowledge level questions correctly, while only 28% of the students answered accurately at the evaluation level (Veeravagu 208).

Making use of and applying Bloom's Taxonomy in the teaching process contributes to students' reading improvement. Crews carried out a study to determine the effect of aligning the Virginia Standards of Learning (SOL) English Framework for reading instruction with Bloom's Taxonomy on students' achievement (III). This study was the result of the requirements of the No Child Left Behind legislation which seeks to

improve reading comprehension (Crews 69). Fourth Grade students in a rural K-5 public school participated in the experiment for nine weeks. The participants were taking reading classes.  There were two groups: a control and treatment group of twenty-three students each. The study followed a pre-test and post-test design. The treatment group was taught through lesson plans based on Bloom's Taxonomy with a skill spiral to ensure their exposure to the content while the treatment group followed the traditional reading methods (Crews 68).

The instruments for data collection were based on Form A (pre-test) and Form B (post-test) of the Division's Benchmark Assessments developed with the Test of Higher Standards (TfHS) Assessment.  Both the pre-test and the post-test were based on thirty-four questions (Crews 67). The results were scanned using the Reports Online System (ROS) and an Analysis of Covariance (ANCOVA) to determine statistical significance between scores (Crews 68).

After analyzing the data, the results showed that the control group earned a higher mean score than the treatment group in the pre-test. However, the post-test results revealed that the mean score for the treatment group gained 9.79 points while the control group's performance increased by 7.65 points (Crews 71). This indicated that aligning the SOL Framework to Blooms' Taxonomy had a positive effect when comparing the treatment group's pre-test and post-test results (Crews 74). Nevertheless, it must be said that there was no significant difference between the groups (Crews 83). The findings supported the use of Bloom's Taxonomy when planning instructional activities enabling teachers to determine strategies for increasing higher-order thinking skills (Crews 8). The use of Bloom's Taxonomy is important as "a scaffold for planning lessons which permits the teacher to systematically teach the content at the advancing degrees of complexity" (Crews 48).

Bloom's Taxonomy has had a considerable impact on education and it might be considered a useful tool in teaching critical reading in EFL classes, too. The taxonomy highlights the complexity of critical thinking and critical reading processes and encourages EFL teachers to plan activities that promote critical reading (Surjosuseno and Watts 227-244). In order to support the use of Bloom's Taxonomy in EFL classes Surjosuseno and Watts provide a perspective of how the Taxonomy could be used as

an educational tool in teaching critical reading in classes which teach English as a foreign language (227-244).  The authors provide a table that illustrates the use of Bloom's   Taxonomy in EFL classes for question formulation (see Annex 2).

The materials used in EFL classes have also been evaluated through Bloom's Taxonomy learning objectives in order to provide teachers an insight into their practice and achieve higher-order thinking. A qualitative and quantitative study carried out in Iran evaluated to what extent Interchange course books promoted higher-order thinking (analysis, synthesis and evaluation). The study investigated which levels of Bloom's Revised Taxonomy were more emphasized in the four course books of Interchange Third Edition series. The evaluation took place looking at the six levels of learning objectives in Bloom's Revised Taxonomy (Razmjoo and Kazempourfard 176). The revised Bloom's Taxonomy emerged out of Bloom's Original Taxonomy. The revision consisted of some changes: a) the six categories have changed from noun to verb forms since cognition is an active process, b) knowledge, comprehension and synthesis are renamed as remembering, understanding and, creating, respectively; c) the order of synthesis and evaluation is exchanged since synthesis (create) is considered  the most difficult skill in the taxonomy (Krathwohl 213-214). (see Annex 3).

Based on the revision mentioned above, Razmjoo and Kazempourfard's study analyzed the contents of Interchange textbooks according to a coding scheme designed by the researchers. The study follows a content analysis type and, accordingly, three units from each course book were coded in terms of learning objectives. The data were analyzed based on frequencies and percentages of occurrence of the different learning objectives (levels) of Bloom's Revised Taxonomy (Razmjoo and Kazempourfard 179). The findings of the study showed that the most prevalent learning levels in the course books were lower-thinking skills, the three lowest levels in Bloom's Revised Taxonomy. The average percentage was 82.86% compared to the higher-order thinking skills with 17.14%.  (Razmjoo and Kazempourfard 186). Finally, in order to design more effective course books, developers should include more evaluative tasks for instructional implications. It is suggested that students should carry out more complex activities in accordance with their level of proficiency (Razmjoo and Kazempourfard 193).

## 5. The Importance of Critical Thinking in Teaching

Once the importance of developing higher-order thinking skills has been highlighted, Williams remarks that the recalling of subject matter at school is important but is not the same as in-depth knowledge, thought and learning. Recalling information is not enough for people functioning in the 21st century and that is why skills that go far beyond recalling information are needed (1). Bellanca & Fogarty affirm that "To prepare our young people for the possibilities and probabilities of the future that few of us can imagine, the wisest course seems to be a curriculum that triggers their critical and creative thinking" (qtd. in Williams 2).

Thinking critically and creatively prepares students for their changing world and, therefore, teachers have the obligation to enable the thinking skills of every student (Williams 3). Paul alleges that "thinking is at the heart of our future, not only for our society but for every society in the world" (qtd. in Williams 4). Critical thinking is important for a lifetime of continuous learning. Moore states that education must emphasize thinking skills that enable students to function responsibly to solve problems in ways that are sensitive and caring of others, society and the world (221).

## 6. Critical Thinking and Instructional Implications

Having clarified the theoretical aspects of critical thinking and the cognitive skills involved, we now turn to what they imply for education. Most teachers and educators would agree that to think critically is not an ability that students naturally possess. However, there appears to be a consensus that critical thinking skills and abilities can be taught. The issue is how. Halpern is an advocate of the broad approach when she says "instruction in general thinking skills, taught as a broad-based, cross-disciplinary course, is the most effective way of teaching critical thinking" (*Assessing Effectiveness 2* 278). She adds that critical thinking should be taught based on two basic assumptions: (1) that there are clearly identifiable and definable thinking skills which students can be taught to recognize and apply appropriately, and (2) if recognized and applied, the students will be more effective thinkers ("Critical Thinking Workshop" 2).

Halpern states that "research shows that students can be taught to become better thinkers and that critical thinking skills transfer to novel situation" (qtd. in Riedel 2). Other authors also agree that critical thinking is a "learnable skill; the instructor and the peers

are resources in developing critical thinking skills" (Bean 4). In sum, they can be taught in the classroom and teachers must act as guides in the process.

Puchta states that thinking skills require development, and this is especially true for children, who need a nurturing environment to foster their cognitive development (5). Fisher says that "thinking is not a natural function like sleeping, walking and talking. Thinking… needs to be developed, and people do not necessarily become wiser as they become older" (qtd. in Puchta 5). In other words, thinking is a learnable skill and needs to be developed starting at an early age.

Based on an instructional program to improve college students' critical thinking skills, Halpern offers evidence that critical thinking can indeed be taught. In her study, "students who were taught general problem-solving skills improved on Piagetian-inspired measures of cognitive development" (qtd. in Lai 29). She carried out another study in Venezuela designed to enhance thinking skills. The research involved students in seventh-grade classes in an experimental and a control group. The students' results based on inventive and creative thinking type activities were evaluated blindly.

Halpern's findings suggest that students who participated in the control group outperformed the experimental group on standardized tests of thinking skills. However, the students of the latter group, who were part of  critical thinking instruction, showed greater improvement and clearer thinking when discussing and writing about novel topics ( "Assessing Effectiveness" 1 245).

Based on the results of 117 studies, Abrami et al. confirm the positive impact of instructional interventions on learners' critical thinking skills and sum up their findings by saying that "The data (161 effect sizes from 117 studies, including 27 true experiments) suggest a generally positive effect of instruction on students' CT skills" (Abrami et al. 1119).

Abrami et al. recognize four instructional approaches. These are general, infusion, immersion, and mixed approaches. In the general approach, critical thinking skills and dispositions are learning objectives, without specific subject matter content (Abrami et al. 1119).  According to Ennis this means that critical thinking skills are taught separately from the presentation for the context of existing subject matter (qtd. in Abrami et al. 1006). The infusion approach encourages the students to think critically in the

given subject. This means that the infusion of critical thinking needs deep and well-understood subject matter instruction (Abrami et al. 1106). Ennis states that infusion takes place when critical thinking principles are somehow made explicit. In contrast, the immersion approach is one in which the subject matter is deep and involving, but critical thinking principles are not made explicit (1). In the immersion approach the treatment of the subject matter is thought-provoking and students do get immersed in the subject (Abrami et al. 1106).

The mixed approach combines the general approach with either the immersion or the infusion approach. Critical thinking is taught "as an independent track within a specific subject matter" (Abrami et al. 1105). Under this approach, "students are involved in subject-specific CT instruction, but there is also a separate thread or course aimed at teaching general principles of CT" (Abrami et al. 1106).

After analyzing data from relevant studies based on an extensive literature search, Abrami et al. concluded that mixed instructional approaches significantly outperformed all other types of instruction, while immersion appeared to be the less effective method. (1117). Moreover, the study proved that the improvement of critical thinking skills is associated with "how the instruction is provided". Critical thinking outcomes depend on the type of critical thinking intervention and the pedagogical grounding (Abrami 1120).

Coming back to the issue of infusion and immersion, namely, explicit and implicit critical thinking skills instruction, Ennis claims that often it is only the second type (implicit instruction) that is being employed since critical thinking instruction is often not made explicit since these skills are expected to be acquired as a "natural consequence of engaging with the subject matter" (qtd. in Lai 31). This then implies that critical thinking abilities are taken to be part of the content to be learned. This means that critical thinking skills should be built into the subject material. It is questioned whether critical thinking could be developed independent of content. Critical thinking must be seen as a "way of teaching the curriculum" by taking a central place in the curriculum (Case 45-49). Paul and Elder state that "one gains knowledge only through thinking" (qtd. in Case 45-49). Paul and Elder affirm that to learn any content area, "figuring out" is necessary and this can be done only through thinking. In other words, he points out

the fact that a concept could not be learned without learning how to use it in thinking something through ("Content Is Thinking"). When content is approached as a sequence of material to be covered, there is no basis for intellectual growth ("Content Is Thinking"). This means that content subject and critical thinking teaching are hand-in-hand.  Pithers and Soden "rejects the view that critical thinking could be taught as a separate subject. Rather, critical thinking should be viewed as a way of teaching and learning in any domain" (qtd. in Lai 31).

In summary, critical thinking skills should be embedded in other courses since the combination of both immersion and subject-specific approaches seems to be the best approach.  The objective is to promote subject matter knowledge while at the same time students develop their critical thinking skills which will be useful for other courses and everyday life.

## 7.  Critical Thinking in EFL Instruction

Cognition and language development are closely related. According to Vacca et al.:  "it is through language that children come to know the world" (qtd. in Liaw 46). Children's critical thinking can be enhanced through English learning since critical thinking and foreign language are considered as a single life skill. In Gheith's opinion, this means that in the present global age learners need to contact each other to exchange ideas or discuss controversial issues and this needs a type of language use associated with critical thinking (Slide 15-16). In her presentation on Developing Critical Thinking for Children through EFL Learning, Gheith argues that critical thinking and the purposeful use of the foreign language should be developed alongside each other. She adds that, as a result, "The language learning challenge is not a mere communicative process, but rather, a much more critical and genuine production" (Slide 27).

The literature, therefore, seems to suggest that thinking skills should be introduced in the English language curricula. Liaw supports the effectiveness of teaching critical thinking skills alongside English as a second or foreign language through her experiment of content-based reading and writing for critical thinking. The study involved 32 junior school students aged 12-13 in central Taiwan. They were put into two groups of similar language proficiency level and English learning background. The treatment consisted of a five-unit syllabus including five subject areas. Each unit required three

hours of instruction time and was taught on weekends as an enrichment program for the participants' regular English instruction (Liaw 58). The data were collected and analyzed according to three aspects: a) critical thinking skills development, b) learning of content area knowledge, and c) improvement in English language skills. A pre-test and a post-test were administered to measure the participants' writing examples using Bloom's Taxonomy and the Critical Thinking Test by Yeh (special test to assess Taiwanese junior school students' critical thinking skills). The assessment of content area knowledge was done through the participants' in-class work samples and homework. To measure the third aspect of the research, a pre-test and a post-test created by the researcher based on the vocabulary list and sentence structures suggested by the English textbook were administered to the participants. Finally, the participants were asked to fill in a questionnaire as well (Liaw 60-61).

The results of the study indicated that although the post-test scores were higher than the pre-test, the difference in terms of Yeh' test was not statistically significant. However, the participants' critical thinking skills development was evident in all six cognitive levels of Bloom's Taxonomy. Moreover, English language proficiency scores revealed a significant increase after the program. The questionnaire indicated positive responses toward the instructional approach. This means that, apart from the content area knowledge and enhanced English language skills, the experiment brought about an additional benefit which was the increase of confidence and motivation in learning and thinking in English (Liaw 62-73).

The application of critical thinking in EFL classes is intended to provide a great deal of benefits to language learners. The Colombian researcher, Pineda stresses that "the role of language educators should not be limited to the teaching of language features exclusively" (Pineda 47). The study is based on the assumption that students tend to participate more when the didactic units focus on issues that generate controversy and touch their reality. She believes that thinking skills in EFL instruction are necessary to encourage learners to reflect on current concerns. Pineda and a group of teachers in the School of Education at the Universidad de Externado engaged their students in activities designed on the basis of critical thinking principles (Pineda 47). The activities were carried out with three groups of a total of thirty-three students divided into

three different levels that represented the "entry, mid-point and the exit stages of language development" (Pineda 54). The research study focused on the constructivist notion of learning since the participants were expected to draw on their own cognitive systems to actively construct meaning (Pineda 48).The tasks themselves were based on Facione's ideas related to cognitive skills development and on Bloom's Taxonomy of Educational Objectives. Most of the activities required that the participants present their points of view by providing well-supported arguments. The purpose was to find out how the designed tasks influenced language competence and critical thinking.

After a qualitative interpretative analysis of the data, the results indicated that the tasks stimulated classroom talk and encouraged participants to engage in critical work. Pineda is, therefore, a supporter of the use of criticality in EFL classrooms since she holds that learners can develop their potential and "reflect not only on what others say and do, but also on what they say and do themselves" (Pineda 75). In summary, she stresses "language competence and criticality are on-going, never-ending processes. However, teachers can refine them through thought-provoking, stimulating materials" (Pineda 45).

## 8. Instructional Strategies

Based on the views and findings of the academics and educationalists dealing with the topics of the present research study, it is probably reasonable to assume that a) critical thinking skills can be taught; b) they should be taught as part of the content or subject matter; and c) there are valid arguments to support the idea that critical thinking skills can and need to be built into the foreign language (English) curriculum.

However, there are some other instructional strategies based on constructivist learning methods, such as cooperative learning, and task-based instruction that may encourage critical thinking skills.

Constructivist learning methods are student-centered. The constructivist method states that "knowledge is acquired through a person's interaction with the social and material environment" (Geok-chin Tan et. al 20). In other words, the students' interactions lead to experiences, then concepts are formed and these constitute knowledge. It is important to appreciate that the presentation of pieces of information does not in itself constitute knowledge. Geok-chin Tan et al. emphasize that there are

stages in acquiring knowledge: first, the students need to organize the information, then interpret it and, finally, build a concept based on their experiences (21). The activities that are used to promote critical thinking through constructivist methods are, for example, KWL charts (What I know, What I want to know and What I have learned), graphic organizers, argument diagrams, concept maps, and problem-based activities (Lai 36).

Another approach, cooperative learning, is also rooted in constructivist methods and in Piagetian and Vygostkyian traditions which emphasize that cognitive development is achieved through social interactions (qtd. in Lai 34). Davidson et al. define cooperative learning as "a way of reorganizing classroom instruction to enable teachers to move away from the traditional role of information provides to a new role of facilitators to promote student collaboration and thinking" (qtd. in Geok-chin Tan et al. 3). We have already referred to Abrami et al., who demonstrated that collaborative learning as an instructional approach has a small but significant effect on critical thinking (Abrami et al. 1119).

According to Bonk and Smith, there are collaborative strategies that can enhance learning, such as think-pair-share, interviews, roundtables, and jig-sawing (qtd. in Lai 35).  Sylwester alleges that in order to engage students, teachers must provide them with a dynamic and active environment. Activities such as "student projects, cooperative learning, and portfolio assessments place students at the center of the educative process, and thus stimulate learning" (qtd. in Williams 5). Cooperative learning is a lot more than students sitting in groups.

Some other activities that promote cooperative learning through interactive working groups include discussions and debating (Vygotsky 57). The creation of graphic organizers also promotes critical thinking. KWL (know, want to know, and learned) charts are very useful: these charts require students to identify what they already know about a topic, what they want to know about the topic, and what they have learned upon completing the instruction (Crawford et al. 13-15).

Geok-chin Tan et al. emphasize that in order for this method to succeed, students need to be engaged in a collective task which can only be completed effectively by cooperating with one another (Geok-chin Tan et al. 3). They carried out a six-week

experiment in eighth-grade classes in Singapore which was designed to study the relationship between the students' academic achievement and their motivation to learn.

Two methods were employed: The Group Investigation method or cooperative learning and the traditional Whole-Class method (1).  The results of the experiment did not support the original hypothesis that group investigation would improve achievement. In actual fact, achievement and motivation did not improve at all in the experimental group. This is due to the fact that the most dominant type of instruction in Singapore is the traditional method and the six-week experiment was not long enough to have an effect. Although the findings were not the ones expected, the studies cited by Geok-chin Tan et al. described some successful experiments with cooperative learning (Zingaro 7).

Critical thinking skills could be taught as part of the content or subject matter and this is what Klimovienė et al. allege when they state that critical thinking is an essential constituent of functioning in the academic world since this is the  manner in which knowledge is added to a field. In their words, "Critical thinking is a desirable skill in all aspects… it allows knowledge and skills  to develop and evolve" (77). They go on to say that critical thinking has become a very important  strategy to increase learning effectiveness  when teaching any subject, and foreign language is no exception (77). It is worth looking at some of the research projects that focused on verifying or refuting this claim.

The experiment that  took place at the Lithuanian University of Agriculture analysed the development of critical thinking in a university environment while teaching Business English. The study  focused on cooperative learning activities that  have already been identified as  effective techniques for developing critical thinking. The research method was based on the analysis of scientific literature, questionnaires, and observations, as well as statistical and comparative analyses (Klimovienė et al. 77-78). The participants of the investigation were 90 second-year students of the Faculty of Economics at the University of Lithuania, who had Business English as a compulsory subject and were taught by three English language instructors. The participants had three hours a week of Business English for four months. The treatment was based on cooperative learning techniques that were built into the instructional and evaluative methods as well.

Since critical thinking requires the thinker to identify, analyze, criticize, question, evaluate, summarize and communicate information effectively, the focus areas for assessing critical thinking were the seven components of critical thinking chosen according to Bloom's Taxonomy (Klimovienė et al. 81). The analysis of the preliminary test data showed that only one-third of the students displayed reasoning skills. However, the post-test results showed a significantly higher rating (Klimovienė et al. 81). The findings revealed that there was a relationship between cooperative learning and critical thinking: "Students who mastered the skills of cooperative learning mastered the skills of critical thinking as well. The relationship between students' success in mastering critical thinking and good language command has become evident as well" (Klimovienė et al. 81).

## 9. Critical Thinking in Task-Based Instruction

Once critical thinking is deemed a teachable matter, there are a number of instructional strategies to develop the related thinking or cognitive skills. The present study is focused on task-based instruction in order to encourage critical thinking skills and language improvement. Several authors claim that this approach can have a beneficial effect on learning in general and English language learning in particular. Jantrasakul, for example, is of the opinion that "…an integration of critical thinking into instruction would lead EFL classes to become meaningful and, thus, train the student to become a lifelong learner" (22).

In this vein, Ellis attempts to define "tasks" as part of Task-based Instruction. Tasks are central in language pedagogy; Ellis refers to Nunan, who defines a task as an activity that necessarily involves language (*Task-based Language Learning* 2). Ellis makes a distinction between "tasks" and "exercises". The first one calls for primarily meaning-focused language use in contrast to the second one which calls for primarily form-focused language use (*Task-based Language Learning* 3). Lee states that a task is a classroom activity that has an objective obtainable only by the interaction among the participants. It is focused on meaning exchange as well as on a language learning endeavor and demands that learners comprehend, manipulate and produce the target language (qtd. in *Task-based Language Learning* 2). Ellis' own criterial features define a task as follows: a) A task has a work plan; b) A task involves a primary focus on

meaning and seeks to engage learners in using language pragmatically; c) A task involves real world processes of language use.; d) A task can involve any of the four language skills (both the 2 receptive and the 2 productive skills); e) A task engages cognitive processes and has a clearly defined communicative outcome (9-10). Tasks provide the basis for an entire language curriculum to emphasize the students' full potential for growth (*Task-based Language Learning* 31). He stresses that tasks can be designed with a metacognitive focus to help learners "to become aware of, reflect on, and evaluate their own learning styles and the strategies they use to learn" (*Task-based Language Learning* 32).

There is related research evidence provided through a qualitative study carried out at the University of Technology, North Bangkok. Jantrasakul's research investigated how critical thinking-based EFL lessons facilitate students' language learning and thinking development. The purpose of the study was to train students to become competent in English with critical minds. The participants were 37 first-year students whose language proficiency level varied.

The critical thinking-based EFL lessons did not last the whole 3-hour class period. These lessons were designed for about 45 minutes to 1.5 hours of class while the grammar lessons were set for the remaining time. Jantrasakul designed ten critical thinking-oriented lessons based on 10 readings of the regular English textbook (New Inside Out) (24). The treatment lasted two semesters over a full academic year. The data were collected through classroom observation, task sheets, written assignments, a written journal and both mid-term and final tests (24).

Jantrasakul's main findings support those who claim that critical thinking and language learning can be done simultaneously and can bring about positive results. The data analysis based on the written journals revealed that the students' attitudes towards the instructional approach were positive and they were highly motivated (27). Classroom observation and the written tasks suggested that the approach promoted students' involvement and language use. Even though the results concerning the participants' language learning improvement did not show a significant gain, the data revealed some language improvement in the use of vocabulary (28). Moreover, the critical thinking-

oriented approach in EFL classes had a beneficial effect on general English language performance (Jantrasakul 30-31).

Learners' engagement in doing something during their lessons helps them to learn best and they become actively involved when working together. This is what tasks can create if they are applied in class. Students learn best when they are given meaningful and engaging tasks. Motivation and engagement are further enhanced when learners are involved in working together actively. The study described below was conducted by Melike Yücel in a Turkish Primary school in Tarsus. The treatment lasted 4 months and aimed at finding out the effects of task-based learning on the participants' critical thinking skills related to the language content and topics proposed by the regular curriculum (82).

The participants were randomly selected and their ages ranged between 11 and 14. The treatment consisted of tasks requiring the use of thinking skills. Then lesson plans were divided into warm-up tasks, presentation tasks, and practice. Follow-up sections were also designed so as to infuse critical thinking in the curriculum (Yücel 43). The data collected were analyzed both quantitatively and qualitatively. A Critical Thinking Questionnaire with 16 items including closed-type and scaled statements was administered before and after the treatment to measure to what extent the participants can think critically (Yücel 51). The participants were interviewed at the beginning and at the end of the study and the researcher kept a written diary about the students' attitudes and behavior during the treatment. Bayer's Critical Thinking Behavior Observation Report (Yücel 52) was used to analyze the participants' behavioral changes towards the instructional approach. The analysis of these data showed a statistically meaningful positive change in the participants' attitude towards the course. In Yücel's opinion, this may be due to the fact that the students felt that through the accomplished tasks they could develop their language (83). She states that combining language instruction with critical thinking is effective and engaging: "Integrating tasks is a good way of stimulating the use of critical thinking" (86). Furthermore, Yücel transcribed and analyzed the video-recorded lessons using Facione's Holistic Critical Thinking Scoring Rubric (51) which consisted of the cognitive dimensions of critical thought based on Bloom's Taxonomy (83).

The results indicated a gradual improvement in the participants' critical thinking skills and dispositions. The findings revealed that task-based activities do have an influence in the development of critical thinking skills. At the end of the study the participants showed signs of using some critical thinking skills such as: "accurately interpreting evidence, statements, or questions; identifying relevant arguments (reasons and claims) for and against; offering analyses and evaluations of obvious alternative points of view; drawing warranted, non-fallacious conclusions; justifying some results or procedures; explaining reasons; fair-mindedly following where the evidence and reasons lead" (Yücel 85).

The reading and writing activities to develop students' critical thinking skills in the present research are based in the TBLT (Task-based Language Teaching) approach. This approach is based on the students' interaction and use of the language in meaningful tasks. According to Howatt, task-based language teaching attempts "to create opportunities for communication in the classroom on the grounds that language is best learned through communicating" (qtd. in *Language Teaching* 196). Rod Ellis, for his part, suggests that the design of task-based lessons must be divided into three phases which are pre-task, during task and post-task (*Language Teaching* 243). The author of this research likewise divided the lessons into three phases: anticipation, building knowledge and consolidation (Crawford et al. 2-3), a method which is closely related to Ellis' design.

These lessons will require background knowledge; therefore, the activities should be based on the students' experiences and previous knowledge of the topic. Willingham stresses that "The processes we must hope to engender in our students - thinking critically and logically - are not possible without background knowledge" (*Critical thinking* 37). Teachers need to be sure that students have the necessary previous knowledge of the situations or topics presented to them so that they can carry out a critical thinking task. According to Willingham "the goal is not simply to have students know a lot of stuff – it's to have them know stuff in service of being able to think effectively" (*Why don't students like school?* 48). According to Fisher et al., the tasks that require the exercise of judgment are more likely to elicit critical thinking than others (qtd. in Lai 40).

### 10. Critical Thinking in Reading and Writing Activities

Evidence that critical thinking can be enhanced through reading and writing activities in EFL classes has been provided by various experiments. Alizamani et al. conducted an experimental study in Iran investigating the effectiveness of teaching critical thinking strategies on Iranian EFL learners' reading comprehension ability. Eighty EFL students of PADIDEH Language Center were selected and randomly assigned into experimental and control groups. The treatment group was taught using the regular textbook, but in addition, received instruction regarding critical thinking strategies consisting of formulating questions, paraphrasing the text, interpreting, analyzing, evaluating, inferring, explaining, etc. The treatment took eight weeks of one and a half hour instruction per week. (Alizamani et al. 135). The control group followed traditional methods of teaching reading comprehension as presented in the participants' textbooks. The data was collected through pre-tests and post-tests administered to both groups.

The analysis of the pre-tests showed that there was no significant difference between the two groups. However, the final results provided evidence in support of the positive effect of critical thinking on reading comprehension ability. They showed that critical thinking skills helped students to understand English language texts better (Alizamani et al. 137-140).

Another study in Iran also explored the relationship between critical thinking, reading comprehension and reading strategies. The sample was randomly selected and showed homogeneity in terms of language proficiency. The participants were seventy junior and senior EFL students of Arak University, Iran. They could be considered a representative sample of Iranian EFL learners since the participants were admitted from all over the country (Hosseini et al. 1358). The data were collected through the TOEFL reading comprehension test, a 34-item reading strategies inventory and a Persian version of the California Critical Thinking Skill Tests, Form B (Hosseini et al. 1359).

The findings of the study revealed that: a) the use of reading strategies and critical thinking made significant contributions to the participants' reading comprehension, b) Iranian EFL learners used cognitive and metacognitive strategies more than memory, social and textual strategies, c) there was a positive relationship

between the participant's use of cognitive strategies and their reading comprehension ability and critical thinking (Hosseini et al. 1361-1362).

The integral relationship between reading, writing, and learning is addressed by the Foundation for Critical Thinking through *The International Critical Thinking Reading and Writing Test*. This test assesses "the ability of learners to use reading and writing as tools for acquiring knowledge" (*The International Critical Thinking* 1). Critical thinking is the principle of "close reading" and "substantive writing" and both are considered integral parts of the "educated mind"( *The International Critical Thinking* 1). Reading closely helps learners to learn and deepen their understanding of ideas, and writing substantively involves the ability to identify and express significant ideas in clear writing (*The International Critical Thinking* 2). Reading and writing hold an intimate relationship since they are parallel and seek to enable learners to continue learning throughout a lifetime. Thus, Paul and Elder state that "close reading and substantive writing are symbiotic skills of disciplined thought" (*The International Critical Thinking* 4) and both require learners to use the elements of reasoning well (*The International Critical Thinking* 2). This means that learners must possess the intellectual ability to clarify purposes, formulate clear questions, distinguish accurate and relevant information, infer logically, identify justifiable assumptions, and trace logical implications (*The International Critical Thinking* 4).

Reading closely and writing substantively are divided into five levels of proficiency where thinking skills are central. These levels are: a) paraphrasing the text sentence by sentence, b) explicating the thesis of a paragraph, c) analyzing the logic of the text where learners can use their understanding of the elements of reasoning/thought (see Annex 4), d) assessing the logic of what learners are reading (evaluation) by applying intellectual standards like clarity, precision, accuracy, relevance, significance, depth, breadth, logic and fairness, and e) role-playing which means speaking in the voice of an author (*The International Critical Thinking* 8-9 ).

Reading is considered "an essential skill critical to most" (Veeravagu 206). Reading comprehension is a thinking process through which a reader selects facts, determines meanings, relates the new material to previous knowledge, and judges the appropriateness of a text (Veeravagu 206). Apart from what has been mentioned before,

Garner believes that cognitive processes require that the learner make meaningful understanding by inferring, elaborating ideas, and discarding unimportant details (qtd. in Veeravagu 206). For these reasons, critical thinking is closely related to reading comprehension. Fielding and Person state that many researchers affirm that active and thoughtful reading is a source for critical thinking engagement with texts since critical thinking facilitates, re-enacts, and reconstructs knowledge that leads to comprehension (qtd. in Veeravagu 206). According to Allington, comprehension in reading cannot be measured by recalling information about what has been read. It is important that the assessment focuses on critical reading taking into consideration the cognitive processes (qtd. in Veeravagu 207).

As the aim is to help students to organize, process, and connect ideas to present well-founded arguments upon a determinate topic unfinished sentence. Writing activities based on critical thinking could provide the students with the necessary practice to develop these higher-order thinking skills. Crawford et al. states that the writing process begins with an idea which is gradually shaped to the point where it is communicated successfully to the readers (115). Critical thinking activities are needed in the writing process to enhance students' understanding since they rarely gain insights from only listening to the teacher's wisdom (Crawford et al. 182).

Thinking critically is also present in the writing process since the learner needs to carefully think and critically decide which words or ideas to use to create a written sample. Elbow proposes a two-step writing process to integrate creative and critical writing. The idea is to write freely and uncritically so that learners can generate as many ideas as possible and then return to the text to revise and evaluate what they have written (Elbow 7).

The impact of critical thinking tasks on the paragraph writing ability of Iranian EFL learners was measured through a study carried out over five weeks. The participants were selected based on an Oxford Placement Test, a Cornell Critical Thinking Test from X and a pre-test. There were 30 participants in the treatment group and 30 participants in the control group. Both groups were taught academic paragraph writing; however, the treatment group received special instruction with critical thinking tasks through the mixed approach (Khodabakhsh 642).The data obtained in the pre-test and the post-test were

quantitatively analyzed. The results showed a significant difference between the control and the experimental group. The treatment group showed an evident improvement in their pre-test and post-test results (Khodabakhsh 644). The study suggests that EFL teachers should allocate more time and effort to the teaching of writing skills through critical thinking techniques to improve their students' writing ability (Khodabakhsh 644).

The cultivation of mechanisms for critical thinking skills in university education is based on language learning tasks since the "formation and development of learners' critical thinking ability can be achieved through language learning tasks…" (He 103).

According to Pirozzi, critical reading is designed to understand, interpret, and evaluate information to reach logical conclusions (qtd. in He 103). The suggested tasks to cultivate critical reading are: a) warm-up and preview to activate background knowledge, b) vocabulary activities leading to the understanding of the text, c) teamwork to interpret and evaluate the author's viewpoints, and d) essay writing to present one's own points, exhibiting the output of the language production (He 104). Writing is an effective way to develop critical thinking since the students are required to have good insights, analytical capacity, innovative capacity, questioning capacity and expressive capacity. For this reason teachers should design writing activities about social issues and hot spots to stimulate the students' interest. Acquiring critical writing skills can help students to choose appropriate language forms and reduce the use of fixed patterns (He 104). In short, critical thinking can be enhanced through reading and writing activities.

## 11. The Three-phase Lesson

As mentioned before in He's work, critical thinking should be cultivated and teachers should consider doing this by designing appropriate reading and writing activities for their students. Crawford et al. state that teachers want to challenge students "not just to memorize, but question, examine, create, solve, interpret, and debate the material in their courses" (Crawford et al. 1).

With this purpose in mind, the lessons of the present study were divided into three main parts: anticipation, building knowledge and consolidation (ABC lessons). The anticipation phase directs the students to think and ask questions about the topic they are about to study. This phase serves to explore the participants' previous knowledge in order to help them to focus attention on the new topic. It also provides a context for

understanding new ideas (Crawford et al. 2). Eaton states that good critical thinkers try new ideas and propose alternate solutions that look at a problem in a new way. They are willing to take risks when trying out new ideas and stretching their imagination (Eaton 27). The anticipation phase uses warm-up activities that encourage creative problem solving. The building knowledge phase "leads the students to inquire, find out, make sense of the material, answer their prior questions, and find new questions and answer those, too" (Crawford et al. 3). During this middle phase the students compare, revise, identify, monitor, question, make inferences, and make personal connections (Crawford et al. 3). In the consolidation phase the students summarize, interpret, give opinions, make personal responses, test out ideas, assess learning and ask additional questions. During this phase the students reflect on what they have learned (Crawford et al. 3).

The ABC lesson structure is based on a three-part teaching model introduced by Meredith and Steele. These authors describe the three-part lesson as the framework for teaching (16). According to this construct, "students have to be adept at applying a set of practical thinking skills that enable them to sort information efficiently and transform it into practical behaviors" (Meredith and Steele 18). Their three-part teaching model goes by the name of "evocation", "realization of meaning", and "reflection". The objective of the evocation phase is to raise awareness of prior knowledge to guide the students' thinking during the rest of the lesson. The new material or new learning experiences are introduced through questioning or activities that prompt thought about the topic and build bridges between known and new knowledge (Meredith and Steele 21). The realization of the meaning phase exposes the students to the new information; they need to be purposefully and thoughtfully engaged to manage the information (Meredith and Steele 23). Meredith and Steele recommend activities such as group brainstorming, individual brainstorming, group and paired discussion and jigsaw activities (30). In the final phase, reflection, the students express and make use of the new knowledge and show understanding in their own words. The students apply the new knowledge to generate new ideas and concepts (Steele 8).

This three-part lesson or framework for teaching introduces a model of change into instructional practices. The Reading and Writing for Critical Thinking Project

(RWCT) promoted this model of instruction through a long-term multinational school restructuring project (2000). It provided a powerful model of change in instructional practices since it relies on a corps of professional volunteers with excellent skills associated with the International Reading Association (IRA). The participants of the project came from 24 different countries in Europe and Central Asia (Steele 2). The instructional strategies that reflected the project's philosophy and purposes were presented in a compilation of eight guidebooks during the first year of the project. However, nothing in the guidebooks was taught directly as content. The participants were supposed to experience the strategies as learners and then reflect on their experiences as teachers (Steele 13). During the second year, the participants were trained to deliver what they had acquired to their colleges in each of the 24 countries. After three years of preparation (2003), The Reading and Writing for Critical Thinking was received throughout Central and Eastern Europe and Central Asia with overwhelming support and positive changes (Steele 20).

A study carried out in Kosova assessed the impact of the Reading and Writing for Critical Thinking (RWCT) program. The data were collected through systematic observation reports designed by the American Institute of Research and the questionnaires were adapted from a comprehensive AIR-developed instrument in previous RWCT evaluations (Pupovci 14). The data analysis followed qualitative and quantitative methods. The participants were 20 RWCT trained teachers and 20 non-RWCT trained teachers. After analyzing the observation reports, the results supported the effectiveness of this training program in leading to education change. The 20 RWCT teachers showed significant differences in their teaching methodology from their control group counterparts (Pupovci 11).

In Ecuador teachers are required to take part in a training course called "Curso de Didáctica del Pensamiento Crítico". It is a SiProfe training program for teachers at state schools sponsored by the Ministry of Education. The objective of the training course is to develop teachers' critical thinking abilities so that they can promote their students' abilities to judge, support ideas, question and give arguments (Creamer 9). The teachers are trained to manage strategies for the development of their students' critical thinking skills. During the training course the teachers experience the strategies as

learners and the lessons follow the anticipation, building knowledge, and consolidation structure (Creamer 63). Unfortunately, as yet there have been no studies conducted to assess the impact of the application of these teaching strategies in Ecuador.

In summary, the major results of the present literature review define critical thinking as the ability to use cognitive skills or mental abilities in order to understand, apply, analyze, synthesize, and evaluate information. This ability will lead learners to formulate inferences and solve problems using good judgment. Blooms' Taxonomy has become a very important construct to evaluate critical thinking development. There have been important studies that demonstrate the positive contribution of the use of Bloom's Taxonomy in teaching and learning methods. This taxonomy seeks to promote learners' higher-order thinking skills. Other studies present evidence supporting the fact that critical thinking is teachable matter since it is part of the cognitive domain. Moreover, findings in this literature review confirm that language development and cognition are closely related. This means that critical thinking can be developed in EFL classes and English language improvement can be similarly promoted. There are several instructional approaches to enhance critical thinking in the curriculum such as general, infusion, immersion, and mixed approaches. According to the evidence, subject matter knowledge can be promoted while the learners also develop their critical thinking skills.

By way of summary, the literature seems to suggest that the immersion approach might be the best way to develop critical thinking. Beyond that, there are instructional strategies based on constructivist learning methods, cooperative learning, and task-based instruction to encourage critical thinking development. Several researchers claim that task-based instruction does have influence on the development of learners' critical thinking skills. A convincing amount of findings supports the fact that critical thinking and language learning can be developed simultaneously. Research findings show that critical thinking can be enhanced through reading and writing activities in EFL classes. Finally, the evidence presented supports the use of the three-phase lesson design as a model of change in instructional practices. Now that the theories and instructional practices have been reviewed, the next chapter focuses on the methodology applied for the carrying out of the research project.

**CHAPTER II: Research Methodology**

### 1. Overview

The concern of the present study was to find answers to the questions about whether critical thinking skills development and foreign language improvement is possible via task-based foreign language instruction and whether foreign language instruction in reading and writing can be used to improve critical thinking. The hypothesis was that task-based reading and writing activities in EFL instruction would develop the students' critical thinking skills and improve their English proficiency at the same time. The independent variable is the application of task-based reading and writing activities. The dependent variable is the improvement of critical thinking skills and English language proficiency. Since the development of critical thinking skills and English improvement are the constructs of this research, they had to be defined in measurable terms to have validity. In other words, the two variables of critical thinking development and English improvement needed to be operationalized to be measured.

The impact of the treatment was assessed and analyzed from two aspects: the students' critical thinking skills development and the improvement in their English. The operationalization of critical thinking development is based on Bloom's Taxonomy. As mentioned previously, there are six progressive domains of thinking: knowledge, comprehension, application, analysis, synthesis and evaluation (Liaw 60). The students were assessed through a pre-test, a mid-test and a post-test by reading and writing tasks based on the stories introduced during the treatment.

To measure critical thinking development, the students' answers were categorized according to Bloom's Taxonomy levels and tally counted for the three tests. The students' answers were analyzed based on the quality of the arguments underlying their position and how they manipulated what they had learned. The improvement in English proficiency was assessed through the writing samples provided by the students at the end of each test using the rubric designed by the researcher focusing on grammaticality and vocabulary use.

Finally, a ten question sheet with dichotomous and open-ended questions aimed at finding out the students' perceptions regarding their improvement in reading and writing skills was administered. The purpose was to establish the degree of their appreciation and points of view about the activities carried out during the treatment. They were also expected to provide a rationale or justification for their choices. The data were registered and tally counted in a control register following which it was statistically and qualitatively analyzed.

## 2. Research Methodology

To establish the causal effect of task-based reading and writing activities on critical thinking skills development, this research follows the experimental-qualitative-statistical method applied in the teaching of one control group and one treatment group. The data was qualitatively and statistically analyzed. The process in both groups was based on the reading activities and stories in units 6, 7 and 8 of the course book *American More! 2.* The control group was taught in a straightforward manner as suggested by the Teacher's Book during a double class on Mondays and a single class on Tuesdays. The treatment group was presented with the adapted version of the ten stories taken from the course book. Their classes took place on Thursdays (double class) and on Fridays (single class). The research project was conducted during the second semester of the school year (4 months in total) in 2013. Double classes took 90 minutes, while single classes lasted 45 minutes. This meant 30 class periods of instruction for each group. Each class for the treatment group was divided into three stages: anticipation, building knowledge and consolidation. The first two stages were developed during the double class on Thursdays while the third stage was carried out during a single class on Fridays.

## 3. Research sample

The research involved two intact classes as random sampling was not deemed feasible. The treatment was administered to lower-intermediate, Grade 10 students at a private school in Cuenca, Ecuador (Sagrados Corazones High School). The participants of the study were 17 female students aged 14-15. The control group was formed by 15 female students of the same age range.

According to the English Language Learning Standards (ELLS) based on the Common European Framework of Reference for Languages (CEFR), the proficiency levels set for Ecuador's ELLS are A1, A2, and B1.  The Ecuadorian Ministry of Education and all the educational institutions around the country work together and follow established guidelines to take Ecuadorian students to the top level of the CEFR (Ecuador 2). Sagrados Corazones High School in Cuenca is by no means exceptional and that is why the institution chose the teaching material based on the CEFR objectives. The chosen book, *American More! 2* corresponds to level A2 of CEFR.  Both the control and the treatment group were set up based on the placement tests taken at the beginning of the school year and constituted what one might call "lower grade groups", or in CEFR objectives "Level A2". Based on the results of the placement tests, it was evident that the groups were comparable in terms of English language proficiency.

The teacher informed the students of both groups about the main points of the study and was aware of her dual role as a teacher/researcher. After the students voluntarily agreed to participate in the experiment, their parents signed  the consent forms which guaranteed the confidentiality of the gathered information and the anonymity of the participants (see Annex 5). The study reports the data in general terms.

### 3.1 Control group

The group was formed by 15 female students. The stories and activities presented by the book *American More! 2* in units 6, 7 and 8 were taught as suggested by the book. The participants worked with their books while following and   completing all the activities. The activities took 30 periods of class. The participants completed all the reading, culture, grammar, vocabulary, skill building and cross-curricular sections that the units provided.

### 3.2  Treatment group

The treatment group differed from the control group because the reading activities were treated in a different way. Both groups received the same input in all the sections mentioned above however, the treatment group worked on adapted critical thinking activities with regard to the reading and writing sections.

The stories taken from the textbook *American More! 2* were central to the classes. Ten stories were presented during the 30 classes of instruction and the students were asked to express their ideas, make comments verbally and in a written form about the stories. The teacher designed topical, thought-provoking questions and activities encouraging the use of higher thinking skills. The purpose of the treatment was to provide opportunities to activate the participants' previous knowledge and use the newly learned material so that both could be applied to the topic in question. During the lessons the participants were expected to express their ideas even if it meant that the target language was used in a manner involving frequent mistakes.

The lessons were occasions for the students to practice English based on their experience and interests related to the given topic. Building on Crawford's work, the questions and activities were designed to support higher levels of thinking. The activities dealt with complex ideas such as the relationship between concepts instead of addressing facts and details (5). The students carried out activities ranging from the simplest (knowledge level) to the most complex (evaluation level) of the cognitive domain.

In order to provide the students with the necessary vocabulary and grammar structure, isolated grammar lessons were provided before the treatment days. The treatment followed the three-phase lesson pattern: anticipation, building knowledge and consolidation or ABC lesson. Moreover, the intervention involved a mixed instructional approach that combined both the English language content and critical thinking instruction (Abrami et al. 1105).

## 4. Stories

During the treatment, the ten stories were explored by the three-phase lesson pattern mentioned above. The stories were based on real life situations. The activities for each story were designed so as to raise the participants' interest and encourage them to get involved in the topics and share their experiences. The titles and details are presented in the following table:

| Story Title | Description |
|---|---|
| 1. The Blind Side | It was a true story about personal achievement. It was about a homeless African-American teenager who became a famous football player. |
| 2. DVD Horror | The story was about superstitions and supernatural events. It described bad things happening to people who had watched a famous horror movie. |
| 3. Storytelling (Rattlesnakes) | A student told her classmates about her experience with a rattlesnake in the Great Canyon. |
| 4. The United States of America | The story described important tourist sites in that country. |
| 5. Twilight | It was based on the famous movie "Twilight". The story described an impossible love. |
| 6. Khalid's Dream | This story was about a man named Khalid who became rich after he obeyed his repetitive dreams. |
| 7. The Impossible | The story was about the tsunami that occurred in Thailand in December 2004. Many people died and a family became separated from one another. |
| 8. Agony Aunt Letter | In the story, a teenage girl was confused about changing her physical appearance to impress the person she liked. |
| 9. Personality Quiz | This was meant to help the participants to discover how introverted or extroverted they were. |
| 10. Last Day of School | This story, apart from being a farewell from school, was a reflection on the positive and negative aspects of the school year. |

Table 1. Stories and description
Adapted from *American More! 2*

## 5. The Three-phase Lesson

All the stories were prepared to raise the participants' motivation in order to keep their attention. The purpose was to make them feel that they could relate to the stories. For instance, most of the students had faced emotional and physical appearance issues. Besides, the majority of them were interested in horror stories as well as supernatural events. It was meaningful for them to read and write about such topics. The three-phase lesson pattern consisted of the following:

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## 5.1 Anticipation Phase

The activities of the anticipation phase were intended to arouse the participant's curiosity; it also included a short presentation of the topic by the teacher as well as the introduction of the new concepts before the reading activity. The purpose was to link what the students already knew to the new information presented to them.

### 5.1.1 Warm-up Activities

These activities at the beginning of each lesson helped the students to learn new vocabulary and to make connections between what they already know and the new stories; it also helped to awaken their curiosity and imagination. The specific aim was to encourage students to use reasoning skills such as: logical thinking, critical analysis, and creative problem solving (Eaton IV). The participants were asked to make comparisons, inferences and predictions. Some of the warm-up activities were designed as games to motivate the students and start the lesson in an upbeat atmosphere. The 10 warm-up activities were taken and adapted from the book entitled *10-Minute Critical-Thinking Activities for English* to inspire independent and creative problem solving before launching the participants into the lesson (Eaton IV).

Participants manipulated the new language to form new words and concepts through word games. Stories and riddles promoted critical reading and logical thinking skills. During some of the short contests, they were encouraged to generate lots of alternatives or ideas for solving problems. The students were also asked to describe their opinions in writing. Finally, "Brain Busters" were designed to challenge participants to think logically. The ten warm-up activities used were the following:

| Story Title | Warm-up Activities |
|---|---|
| 1. The Blind Side | 1. A-Maze-Ing |
| 2. DVD Horror | 2. Food chain farmer |
| 3. Storytelling (Rattlesnakes) | 3. A code and read the messages (wisdom proverb) |
| 4. The United States of America | 4.Tied up in knots |
| 5. Twilight | 5.The dragging' dragons |
| 6. Khalid's Dream | 6. Peek pocket |

| 7.  The Impossible | 7. Meow times four |
|---|---|
| 8.  Agony Aunt Letter | 8. Game: Connect! |
| 9.  Personality Quiz | 9. What kind of animal is your uncle? |
| 10.  Last Day of School | 10. A contest writing a short story |

Table 2. Stories and warm-up activities
Adapted from *10-Minute Critical-Thinking Activities for English and How to Teach Learning and Thinking Skills*

All these activities were intended to challenge the participants to think, make connections, use logic, and question their assumptions as well as to motivate them before the lessons.

The anticipation activities were used to present the new information and vocabulary. To bring up the participants' own prior knowledge, brainstorming tasks were also carried out. The anticipation activities were taken and adapted from the book *How to Teach Thinking and Learning Skill* and *Teaching and Learning for the Thinking Classroom.*

The aim was to present the topic through a set of activities that offer a context for the participants to develop their thinking skills. During this phase, the participants brainstormed ideas before reading the text in order to help them to open their minds towards the new information. Afterwards they had to decide which ideas were relevant. The technique of "predicting from terms" provided the students with some key words related to the story in order to make the participants aware of the topic and to create their own story or interpretation through the terms. Inferring through images and completing a semantic map made the participants draw conclusions. In addition, activities such as completing charts and word webs were also presented.

### 5.2 Building Knowledge Phase

Building knowledge activities consisted of a number of tasks to help the participants gain an insight into and start using critical thinking skills. This phase encouraged the participants to explore and make meaning. In addition, checking vocabulary understanding was essential for getting meaning from the stories.  The

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activities were designed to stimulate the use of critical thinking skills according to Bloom's Taxonomy. Critical reading tasks were presented in this part of the lesson. The participants were assigned to read a text from the regular textbook *American More! 2.* The idea was to engage the participants in tasks that allowed them to reach the top level of Bloom's Taxonomy through practicing the new topic and language content. The tasks varied from finding similarities and differences to comparing and contrasting two ideas or events. They required group work, pair-work or individual work. Some cooperative learning tasks allowed the students to read a text closely for understanding with the help of paired reading activities.

The activities consisted of the following:

| Story Title | Building Knowledge Activities |
|---|---|
| 1. The Blind Side | 1. Individual reading: Think 'n' Move<br>2. Jigsaw<br>3. Graphic organizer: positive, negative and interesting aspects<br>4. Complete a magical potion |
| 2. DVD Horror | 1. Read the story and find mistakes in the picture<br>2. Match the sentence halves<br>3. Graphic Organizer: What I see…/What I cannot see…/What I infer… |
| 3. Storytelling (Rattlesnakes) | 1. Identify new vocabulary<br>2. An exploratory question<br>3. Prediction charts<br>4. Summarizing activity<br>5. Exploratory questions |
| 4. The United States of America | 1. Match the text to the pictures<br>2. Complete a semantic map<br>3. Compare and contrast "Categories of Comparison Map" |
| 5. Twilight | 1. Prediction through pictures<br>2. Individual reading<br>3. Exploratory questions<br>5. Graphic organizer: positive and negative aspects<br>4. Alternative Explanations |
| 6. Khalid's Dream | 1. Pair reading<br>2. Group work: summarizing<br>3. Exploratory questions<br>4. Graphic organizer: agree/disagree |
| 7. The Impossible | 1. Prediction through terms<br>2. Individual reading |

| | |
|---|---|
| | 3. Comprehension questions<br>4. Game: Connect! |
| 8. Agony Aunt Letter | 1. Comparative chart<br>2. Silent reading<br>3. Graphic organizer: agree/disagree<br>4. Graphic organizer: positive and negative aspects |
| 9. Personality Quiz | 1. Identify  personalities<br>2. Class reading<br>3. Take a quiz<br>4. Identify your personality |
| 10. Last Day of School | 1. Class reading<br>2. Class discussion<br>3. Graphic organizer: positive and negative aspects<br>4. Semantic map |

Table 3.  List of building knowledge activities for each story
Adapted from *American More! 2, 10-Minute Critical-Thinking Activities for English, How to Teach Learning and Thinking Skills, and Teaching and Learning Strategies for the Thinking Classroom*

## 5.3 Consolidation Phase

Once the participants had a basic understanding of the stories, they could realize what the implications of the ideas they constructed were, and how these ideas could be applied to their own lives (Crawford 25).  Consolidation activities consisted of tasks aimed at fostering critical thinking skills. The participants were expected to perform the following tasks:

| Story Title | Consolidation Activities |
|---|---|
| 1. The Blind Side | 1. Write a short essay  to support a position |
| 2. DVD Horror | 1. Create a new story<br>2. Questioning |
| 3. Storytelling (Rattlesnakes) | 1. The clock activity<br>2. Give reasons to support a point of view |
| 4. The United States of America | 1. Draw a map of your city  and write about important landmarks |
| 5. Twilight | 1. Identify with different points of view and complete a chart<br>2. Write a letter of advice (letter) |
| 6. Khalid's Dream | 1. Write a new story from a different point of view |
| 7. The Impossible | 1. List steps to create a plan<br>2. Evaluate causes and consequences |
| 8. Agony Aunt Letter | 1. Reflective decision making<br>2. Carry out decision-making and problem- |

| | solving by answering exploratory questions |
|---|---|
| | 3. Write a letter of advice |
| 9. Personality Quiz | 1. Reflect and write a letter about your personality |
| 10. Last Day of School | 1. Reflect and complete a chart |
| | 2. Evaluate evidence and write a short essay |

Table 4. List of consolidation activities for each story
Adapted from *10-Minute Critical-Thinking Activities for English, How to Teach Learning and Thinking Skills, and Teaching and Learning Strategies for the Thinking Classroom*

As the objective was to measure the participants' thinking skills development, the instructions in each phase as well as in the assessment part were set with verbs or thinking words that were based on Bloom's Taxonomy. These verbs were used for each of the ten stories that the participants studied during the treatment.

## 6. Sample Lesson – Story 6

The treatment was administered during three periods of class of 45 five minutes each. The anticipation and building knowledge phases were performed during a double class. This meant that the activities were designed for a 90-minutes class. The consolidation phase was accomplished during a single class of 45 minutes.

### 6.1 Anticipation Phase

During the anticipation phase, the treatment group always had a 10-minute critical thinking activity. As mentioned before, these activities were taken from the book titled "*10-Minute Critical-Thinking Activities for English*". On this occasion, "Peek Pocket" (Eaton 35) was used and turned into a contest. The task was to list 10 ways by which one of the participants could get an egg out of her blouse pocket without breaking it while her hands were tied. This activity, as Eaton states, helps students to try new ideas and propose alternative solutions by looking at a problem in new ways (27). The idea was to encourage the flow of creative ideas; however silly they might be. (Eaton 67). The participants came up with lots of ideas trying to use their mouths, jumping, bowing in front of the desk, kneeling on the floor, etc. The winning team suggested that the person lay on her/his side on the floor and with smooth movements let the egg roll out of her blouse.

After the warm up, activity 2 asked the participants to use five key words to write a sentence using all the words. This activity was adapted from the book *Didáctica del Pensamiento Crítico* (76). The purpose was to infer the topic of the story as well as introduce the new topic so that the participants could make connections to what they already knew. In activity 3 the participants had to create a story by ordering eight images taken from the book *American More! 2*. The purpose was to emphasize collaborative work since the participants had to listen to their classmates' opinions, offer ideas, and give reasons when creating a specific storyline. This activity was adapted from "flow diagrams" in the book *How to Teach Learning and Thinking Skills.* Another version of this activity is to find different ways of sequencing the pictures to create other stories (Simister 58).

### 6.2 Building Knowledge Phase

During the building knowledge phase, the story was presented and the participants read it in pairs. Using the silent reading technique, participant A read the first paragraph and summarized it to student B. Then the participants switched roles and participant B read the second paragraph and they continued doing so through the whole story. Vaughn defines paired reading summarizing as "a technique for having pairs of students read a text closely for understanding" (qtd. in Crawford 25). According to Crawford, the method encourages different kinds of thinking as well as enhances comprehension. It also allows the students to take the initiative and become responsible for their own and each others' learning (Crawford 25).

Beforehand, three exploratory questions were posted on the wall to be debated in class. The participants discussed if dreams could predict events in the future, if dreams could tell them what to do, and where dreams came from. Exploratory questions helped to clarify various elements of the content and relate them to what the students already knew. This type of question encourages students to discuss issues and reflect on them (Creamer 79). The building knowledge activity was based on a technique called academic controversy. This cooperative task encourages students to argue different sides of an issue while defending their position by making sound arguments (Crawford 64). The participants worked in two groups, taking a position on opposite statements. Group 1 would defend the position "Dreams can come true" through their own belief and

experiences and group 2 would take the opposite position supporting the statement "Dreams coming true are examples of coincidence or superstition".

### 6.3 Consolidation Phase

The consolidation phase requested the participants to form groups and retell the story from a different point of view. In this new story, Khalid decided to disregard his dream. The participants had to analyze and write about the consequences of the character's decision.

## 7. Sample Lesson – Story 10

The researcher created the story "Last Day of School" since there were no more stories presented in the course book *American More! 2.* However, this story was related to a topic included in the book. The story was created based on the feelings that the participants might be experiencing at the end of the school year. This story, apart from being a farewell from school, was a reflection on the positive and negative aspects of the school year.

### 7.1 Anticipation Phase

The anticipation phase was based on a group contest. It was adapted from the technique called quick-write. Quick-writes are informal short essays to capture thoughts in a hurry without being preoccupied with style (Crawford 27). This time the technique involved a brief written reflection on a topic (Vacation Time).

Two teams were set up with five participants each and asked to create a story on the board based on the topic "vacation time". After a participant wrote a sentence related to the previous one, she passed the board marker to the next person. After five minutes of writing, the rest of the participants acted as the jury and decided which was the better story. After the text was corrected, all the participants copied the winning version.

### 7.2 Building Knowledge Phase

Once the students appeared motivated and their background knowledge was activated, a directed reading-thinking activity was used to present the story titled "Last Day of School". The objective of the activity was to engage the participants in reading for understanding (Crawford 44). However, the question prompts provided at the end of the reading were focused on the participants' own experiences and feelings during the school year. Later, the participants reflected on the positive and negative aspects of the

period involved to complete a chart. This activity was adapted from the book *Curso de Didáctica del Pensamiento Crítico.* The purpose was to reflect on and discuss the different sides an issue might have (Creamer 87). Finally, the participants completed a mind map about the importance of their classmates and they gave an explanation for their reasons. The purpose was to show the relationships between the new components and the components already learned. The technique helps the students to clarify, organize, connect and gather ideas about a topic (Creamer 176).

### 7.3 Consolidation Phase

This phase required the students to complete a map. This activity is called "Things you never knew about…" The adapted map asked the students about the things they enjoyed the most, things they enjoyed the least, what they would change, and goals for the next school year. The participants then wrote a detailed piece of text / essay using the information in the map.

The purpose of this technique is to improve the quality of questioning and show the participants that not everything they have learned has to be taken for granted. For instance, in this case, the purpose is to evaluate the school year. Once the four questions mentioned above are clear to the participants, they are expected to gather information about the school year and their experiences. Then they come to conclusions about the relevant aspects of the school year to generate implications for the possible goals for the following school year. They need to think about how to improve the quality of their situation at school and improve their lives in the school context. In the final step of questioning, the participants start thinking about what they may wish to do to pursue their goals for the next school year.

It is important to mention that the time limits to accomplish each activity were set out in the instructions provided to the participants and, therefore, they were aware of the timeframe for the carrying out of the activities.

The aim of the treatment was to maximize the benefits of the activities through the three-phase lesson towards critical thinking skills development since "young people need to be discerning with what they find: to clarify, to challenge, to evaluate competing positions, to assess logic and validity, to sort the sense from the nonsense" (Simister 12). The stories and all the activities employed in this study are included in Annex 6**.**

## 8. Methods of Data Collection

The participants were assessed with formatives tests based on Bloom's Taxonomy Levels. They were evaluated by a pre-test, a mid-test and a post-test. A double class was used for each test. Also, the participants answered a questionnaire with dichotomous and open-ended questions based on their perceptions of the treatment.

The three formative tests were divided into six parts according to the thinking levels of Bloom's Taxonomy: knowledge, comprehension, application, analysis, synthesis, and evaluation. The activities intended to measure to what extend the participants were able to use thinking skills in each level.  As mentioned before, language improvement was assessed through the writing samples provided by the participants at the end of each formative test. The participants' written pieces were evaluated through the rubric designed by the researcher and will be discussed in more detail in the data analysis chapter.

### 8.1 Pre-test

The participants were presented with the reading text "Horror Movie" included in the book *American More! 2*. The reading activities were carried out as suggested in the book. After all the activities were finished, the pre-test was administered to the participants. It assessed the six levels of Bloom's Taxonomy based on what the participants had read. The activities are detailed in the following table:

| Blooms'  Taxonomy Levels | Activities |
|---|---|
| 1. Knowledge | 1. Name the characters<br>2. Underline the correct option<br>3. Match the halves |
| 2. Comprehension | 1. Interpret and underline the main idea<br>2. Write numbers to put the story in order<br>3. Underline the main idea<br>4. Translate the expressions into Spanish |
| 3. Application | Answer the questions:<br>1. Could this happen?<br>2. Do you think…?<br>3. Give an example of… |
| 4. Analysis | 1. Compare ideas<br>2. Distinguish characteristics |
| 5. Synthesis | 1. Write an end to the story<br>2. Combine ideas and create a new story |

| | |
|---|---|
| 6.  Evaluation | Answer the questions<br>1.  How would you feel if…?<br>2.  Do you think…? Why?<br>3.  Conclude |

Table 5. Activities designed according to Bloom's Taxonomy levels
Source: Pre-test

The activities to be carried out by the participants at this stage were meant to assess the participants' language level as a starting point before the treatment was administered.

## 8.2 Mid-test

Six stories had been presented to the participants by the time the mid-test took place. In the same vein as the pre-test and the post-test, the mid-test also focused on activities suggested by Bloom's Taxonomy. The activities in this test were based on the stories presented previously and are summarized in the following table:

| Bloom's   Taxonomy Levels | Activities |
|---|---|
| 1.                          Knowledge | 1.  Match the halves<br>2.  Interpret statements |
| 2.  Comprehension | 1.  Interpret the idea<br>2.  Paraphrase<br>3.  Write numbers to put the story in order |
| 3.  Application | 1.  Bring up facts<br>2.  Use arguments to demonstrate<br>3.  What would you need…? |
| 4.  Analysis | 1.  Complete a chart to support an idea<br>2.  Write three positive aspects |
| 5.  Synthesis | 1.  What solutions would you suggest?<br>2.  List ideas |
| 6.  Evaluation | 1.  Establish a relationship<br>2.  Interpret statements |

Table 6. Activities designed according to Bloom's Taxonomy levels
Source: Mid-test

## 8.3 Post-test

After the participants worked on the ten stories chosen for the treatment, the development of their critical thinking skills was assessed through the post-test. The activities were designed to suit each of the ten stories. The post-test included all the stories that the students worked on during the treatment. The activities based on Bloom's Taxonomy were the following:

| Blooms' Taxonomy levels | Activities |
|---|---|
| 1.  Knowledge | 1.  Match the title to the picture<br>2.  Identify and underline names of characters |

| 2.  Comprehension | 1.  Describe differences |
| | 2.  Interpret pictures |
| 3.  Application | 1.  Classify |
| | 2.  If you were…how would you…? |
| | 3.  Give advice |
| 4.  Analysis | 1.  Analyze: What could happen if…? |
| | 2.  Contrast  and find similarities and differences |
| 5.  Synthesis | 1.  Create a plan of four steps |
| | 2.  Identify problems and suggests solutions |
| 6.  Evaluation | 1.  Decide, judge, justify, compare, consider, appraise, and write. |

Table 7. Activities designed according to Bloom's Taxonomy levels
Source: Post-test

The three assessments (pre-, mid- and post-test) took one double class each, so altogether six class periods in each group were used to gain data on how the students' language and thinking skills may have improved.

All the participants in the treatment and the control group were present during the three tests. It is important to stress the fact that English language improvement was measured through the written examples provided by the participants in the last part of each test. Most of the proposed activities in each of the tests were based on the book *Activities for Any Literature Unit Grades 3-5*. These specific literature activities were adjusted to the participants' level to present challenging activities according to their age.

The activities were flexible and could match the differing abilities, needs, and aspirations of the participants. The development of a full range of the cognitive abilities was ensured through these types of activities (Kilpatrick et al.19). The assessment part of the study was designed with the aim of evaluating to what extent the participants were able to use critical thinking skills. Moreover, the proposed activities were appropriate to measure the participants' critical thinking development. The participants' answers in each test were analyzed based on the quality of the arguments underlying their position and how they manipulated what they had learned.

English language improvement was measured through the students' writing skills. The written samples in the last part of each of the three tests were analyzed based on the quality of the sentences and how the participants manipulated grammar structures and how they used vocabulary in context.

### 8.4 Questionnaire

Finally, for triangulation purposes, a questionnaire was administered to the participants. The purpose of the questionnaire was to obtain information from the participants about their perception of the treatment. It was designed to find the degree of the participants' appreciation and their points of view. To complete the questionnaire, the participants needed to think about the experiences they had with regard to the reading and writing activities during the treatment. Ten questions were presented in the questionnaire.

The first question was a dichotomous question about the importance of English. Questions 3, 5 and 6 were closed-ended questions since the participants had to choose a response from a given list. Questions 8 and 9 were open-ended since the participants were expected to provide answers freely. In Questions 2, 4 and 7, Likert Response Scales were provided so that the participants could rank their preferences. Question 10 gathered data about the general view of the reading and writing activities and how far the participants improved their thinking and language skills according to their own perceptions.

The three tests were administered to both the control and the treatment groups under the same conditions. Both groups had the same amount of time to do the tests; however, the tests were not applied on the same day due to timetable constraints.

The treatment group was assessed over seven classes of 45 minutes each. In contrast, the control group's assessment took six classes because the questionnaire was not administered to the control group.

### 9.  Methods for Data Analysis

The assessment material required participants to provide evidence or logical arguments in support of judgments, choices, claims or assertions. The participants were given different activities related to the stories explored. The idea was to observe how well they managed them. Afterwards, the participants carried out written activities which were designed to reflect the "evaluation levels" of Bloom's Taxonomy. The data obtained from these written examples were analyzed to determine language improvement as well.

Bloom's Taxonomy provides an effective tool to measure thinking skills. As critical thinking requires the thinker to identify, analyze, criticize, question, evaluate, summarize and communicate effectively, it was deemed reasonable to incorporate the assessment of the six levels of Bloom's Taxonomy into the assessment of the three administered tests. Each of the six criteria of Blooms' Taxonomy was tally counted according to three main aspects: if the participants' answers represent competency, demonstrate adequate skills or do not represent competency.

To determine the development of critical thinking skills through Bloom's Taxonomy levels, the following criteria were used for data collection:

| Bloom's Taxonomy Levels | Represents Competency | Demonstrates Adequate Skills | Does not Represent Competency |
|---|---|---|---|
| 1. Knowledge | Identify and recall all the required information | Identify and recall part of the required information | Does not identify or recall any of the required information |
| 2. Comprehension | Understand and organize facts and ideas to state a problem in one's own words | Understand and organize part of the facts and ideas to state a problem in one's own words | Does not understand or organize facts and ideas. It is difficult to state a problem in one's own words |
| 3. Application1\| | Use and apply facts, rules, concepts, and principles learned in the classroom in novel situations | Use and apply part of facts, rules, concepts, and principles learned in the classroom in novel situations | Does not use or apply facts, rules, concepts, and principles learned in the classroom in novel situations |
| 4. Analysis | Break information into parts and make inferences to support generalizations | Information breaking and making inferences skills are to some extent used to support generalizations | Does not break information or make inferences to support generalizations |
| 5. Synthesis | Compile information to create a new meaning and propose alternative solutions | A new meaning is partly created and some alternative solutions are proposed | Does not compile information or create new meanings to propose alternative solutions |
| 6. Evaluation | Develop and defend opinions and decisions by making judgments about information | Judgments about information are partly made and opinions and decisions are developed to a certain extent | Does not develop or defend opinions and decisions by making judgments about information |

Table 8. Rubric used to tally count the participants' answers during the pre-test, mid-test and post-test
Adapted from: Handbook-Bloom's Taxonomy and Study of 38 Public and Private Universities to Determine Faculty Emphasis on Critical Thinking in Instruction

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The participants' answers were tally counted according to the quality of evidence or logical arguments in support of judgments, choices, claims or assertions. Each of the six criteria of Bloom's Taxonomy was analyzed according to the three assessment criteria mentioned in the chart above. The same chart was used to tally count the participants' answers during the pre-test, mid-test and post-test. The results obtained during the three tests were compared to establish the development of critical thinking skills. The qualitative part of this study was based on the participants' feedback questionnaire. The analysis was based on their interests, experiences and on what they had learned during the treatment.

Once the participants' answers in the three tests were categorized according to the three fulfillment criteria above, the quantitative assessment took place by tally counting these answers and comparing results through percentages.

The data for English language improvement via task-based foreign language instruction in reading and writing were evaluated by the quality of the written samples that the participants were able to produce. The researcher analyzed the written activities that the participants carried out in the last part of each formative test. The written sample was considered well-written when it satisfied two main criteria: 1) correct use of grammar, 2) accurate use of vocabulary. The first aspect was judged by the adequate use of the grammar structure with subject, verb and complement agreement. The second aspect related to the understandable use of language with the correct use of vocabulary within context. Accordingly, these criteria were followed when tally counting the correct use of the aspects mentioned before in the participants' written samples.

The research methodology applied in the present study was described in detail to provide a clear idea of how the study was carried out. This chapter highlighted the management of the treatment and the research sample (control and treatment groups). The data collection techniques and data analysis methods were also described in detail. The data analysis chapter that follows intends to establish whether the treatment had a positive impact on critical thinking skills development and English language improvement through a meticulous statistical analysis of the data.

## Chapter III: Data Description, Analysis and, Interpretation

### 1. Overview

The present chapter describes, analyzes and interprets the data obtained during the pre-test, the mid-test, the post-test, and the questionnaire. The study measures two main aspects: the development of critical thinking skills via task-based reading and writing instruction and English language improvement through task-based reading and writing instruction. The data are presented by line graphs, bar and pie charts and are displayed in tables showing frequencies and percentages.

First, the results are organized in two general tables that present a descriptive overview of the results found for each of the language skills and critical thinking skills measured in this study. These general descriptive tables are based on average scores to show the results. The participants' English language improvement is also presented through bar charts and tables that show the extent of the correct use of grammar and the correct use of vocabulary. The bar charts and tables that show the degree of critical thinking development are presented according to Bloom's Taxonomy levels: knowledge, comprehension, application, analysis, synthesis, and evaluation. Finally, the questionnaire data are presented through frequency tables (number of participants), bar charts, and pie charts.

### 2. General Descriptive Results

The following descriptive tables present the results obtained in the three tests according to average scores. The results belong to both the control and the treatment groups and describe language improvement according to the correct use of grammar and the correct use of vocabulary. The table contains the average scores showing the results of the measured skills in each test.

### 2.1 Language Improvement in General Descriptive Terms

The participants' language improvement in Table 1 is presented in average score terms for all three tests. The average score was calculated as follows: correct use of grammar was given 1 point while its incorrect use was given 2 points. The same method was used to measure the correct or incorrect use of vocabulary. To represent positive results, the average score should be close to 1. The closer the result to 1, the better the

result. With the help of this table, it is possible to interpret the improvement that the students attained in each language skill.

| | Treatment Group | | Control Group | |
|---|---|---|---|---|
| Language Skills | Number of Students | Average Score | Number of Students | Average Score |
| Pre-test Correct use of grammar | 17 | 1.82 | 16 | 1.81 |
| Pre-test Correct use of vocabulary | 17 | 1.35 | 16 | 1.31 |
| Mid-test Correct use of grammar | 17 | 1.47 | 16 | 1.63 |
| Mid-test Correct use of vocabulary | 17 | 1.06 | 16 | 1.06 |
| Post-test Correct use of grammar | 17 | 1.24 | 16 | 1.56 |
| Post-test Correct use of vocabulary | 17 | 1.18 | 16 | 1.00 |

Table 1. Statistical description of the language skills according to the average score

Source: Pre-test, Mid-test and Post-test

### 2.1.1 Correct Use of Grammar in Descriptive Terms

Table 1 shows that the average score of the correct use of grammar in the pre-test was 1.82 for the treatment group. This means that this average score was very close to 2 (incorrect use of grammar). A similar score was obtained by the control group (1.81). Both groups were almost at the same level - very close to incorrect grammar use in general.

In the mid-test, the average score decreased to 1.47 for the treatment group while the control group obtained 1.63. The improvement was evident for both groups; there was only a modest difference of 0.16 in favor of the treatment group.

Finally, it can be seen that the average score in the post-test for the treatment group was 1.24 while the control group's average score was 1.56. Although the average scores for both the treatment group and the control group were almost the same in the pre-test and decreased during the mid-test, the post-test results showed a better score in favor of the treatment group. Both groups improved, however; it is evident that the treatment group's results were significantly better since it surpassed the results of the control group by 0.32 in the average score.

### 2.1.2 Correct Use of Vocabulary in Descriptive Terms

As part of establishing language improvement, vocabulary was measured by giving 1 point to the correct use and 2 points to the incorrect use of this skill. Table 1 indicates that 1.35 was the average score obtained by the treatment group. The use of this skill was quite close to the expected average score regarding the correct use of

vocabulary (1), considering that there was a difference of only 0.35. In contrast, the control group attained 1.31. The control group scored better than the treatment group by 0.04. This means that both groups were almost equivalent in terms of vocabulary use.

When considering the mid-test results, the treatment group equaled the control group with a noticeable improvement in the average score. Both groups obtained equivalent average scores (1.06). However, when one contrasts the post-test results the treatment group did not show improvement (1.18) while the control group did reach the expected average score (1). By the end of the study, the treatment group was far from the required score by 0.18, but the participants in the control group demonstrated that they were capable of using vocabulary accurately within a sentence.

## 2.2 Critical Thinking Development in General Descriptive Terms

Critical thinking development is displayed through average scores. The measured skills were knowledge, comprehension, application, analysis, synthesis, and evaluation as shown in the following table.

| Critical Thinking Skills | Treatment Group | | Control Group | |
|---|---|---|---|---|
| | Number of Students | Average Score | Number of Students | Average Score |
| Pre-test Knowledge | 17 | 1.53 | 16 | 1.06 |
| Pre-test Comprehension | 17 | 2.24 | 16 | 1.94 |
| Pre-test Application | 17 | 2.18 | 16 | 2.31 |
| Pre-test Analysis | 17 | 2.41 | 16 | 2.06 |
| Pre-test Synthesis | 17 | 2.35 | 16 | 2.38 |
| Pre-test Evaluation | 17 | 2.88 | 16 | 2.88 |
| Mid-test Knowledge | 17 | 1.24 | 16 | 1.06 |
| Mid-test Comprehension | 17 | 1.76 | 16 | 1.88 |
| Mid-test Application | 17 | 1.59 | 16 | 2.06 |
| Mid-test Analysis | 17 | 1.71 | 16 | 1.75 |
| Mid-test Synthesis | 17 | 1.65 | 16 | 2.06 |
| Mid-test Evaluation | 17 | 1.53 | 16 | 2.31 |
| Post-test Knowledge | 17 | 1.06 | 16 | 1.19 |
| Post-test Comprehension | 17 | 1.35 | 16 | 1.5 |
| Post-test Application | 17 | 1.59 | 16 | 2.00 |
| Post-test Analysis | 17 | 1.41 | 16 | 1.81 |
| Post-test Synthesis | 17 | 1.41 | 16 | 1.94 |
| Post-test Evaluation | 17 | 1.71 | 16 | 2.19 |

Table 2. Statistical description of critical thinking skills development according to the average score
Source: Pre-test, Mid-test and Post-test

The average score for critical thinking skills development was calculated as follows: "represents competency" 1 point, "demonstrates adequate skills" 2 points, and "does not represent competency" 3 points. Once again, this means that the closer the average results to 1, the better the results.

Let us now look at the knowledge level or skill as displayed in the pre-test: the average score was 1.53 for the treatment group and 1.06 for the control group. There is a significant difference between the two groups. The control group performed considerably better than the treatment group.

In the mid-test, the treatment group enhanced its results from 1.53 to 1.24. This indicates that this group got close to the required score that demonstrates adequate use of the knowledge skill. The control group maintained its average score (1.06) halfway through the treatment.

However, the final results in the post-test demonstrated that the treatment group has improved tremendously, since its average score was 1.06 better than that of the control group (1.19). The improvement is even more marked if we compare the treatment group's pre-test average score (1.53) with the post-test average score (1.06).

In sum, Table 2 demonstrates that the treatment group improved considerably regarding its knowledge skills by the end of the treatment. This outcome was recurrent in all the other measured skills (comprehension, application, analysis, synthesis, and evaluation).

At this point, the results highlight Blooms' Taxonomy as a useful resource in designing the assessment or tests. This is because the designed activities were oriented to obtain critical thinking outcomes based on the Educational Objectives of Bloom's Taxonomy. This Taxonomy has proved to be a good way for measuring and demonstrating the degree of learners' critical thinking skills since their thinking abilities are measured starting with the simplest skills up to the most complex ones. In agreement with Surjosuseno and Watts (227-244), the results of this study support the use of Bloom's Taxonomy as a useful approach in teaching critical reading in EFL classes.

### 3. English Language Improvement Results

To establish the relationship between task-based reading and writing activities and language improvement, two aspects were considered. They were whether the written samples fulfilled two main criteria: correct use of grammar and accurate use of vocabulary.

### 3.1 Correct Use of Grammar

The correct use of grammar refers to the quality of the sentences produced by the participants. To provide evidence of English improvement through the correct use of grammar, the sentences needed to be well structured with subject, verb and complement agreement. The following table shows the final results in both frequency and percentage terms.

| | | | Correct Use of Grammar | |
|---|---|---|---|---|
| | | | Yes | No |
| Pre-test | Treatment | f | 3 | 14 |
| | | % | 17.6% | 82.4% |
| | Control | f | 3 | 13 |
| | | % | 18.8% | 81.2% |
| Mid-test | Treatment | f | 9 | 8 |
| | | % | 52.9% | 47.1% |
| | Control | f | 6 | 10 |
| | | % | 37.5% | 62.5% |
| Post-test | Treatment | f | 13 | 4 |
| | | % | 76.5% | 23.5% |
| | Control | f | 7 | 9 |
| | | % | 43.8% | 56.2% |

Table 3. Correct Use of Grammar
*Source: Pre-test, Mid-test and Post-test*

Table 3 shows the correct and incorrect use of grammar in frequency terms (number of participants). In the treatment group three participants demonstrated correct use of grammar, but 14 of them had difficulties when using grammar. The control group attained a similar result. This implies that both groups were at the same level as to their use of grammar.

One can notice that the participants' correct use of grammar had improved since nine out of 17 participants in the treatment group produced well-structured sentences according to the mid-test results. The number of participants that were using grammar

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correctly also increased in the control group (six out of 16 participants).This implies that the treatment group outperformed the control group by three participants.

The post-test results were decisive when it came to affirming that the treatment group had improved significantly since at this stage 13 out of 17 participants used grammar correctly. The control group's improvement (seven out of 16 participants) was not as noticeable as that of the treatment group. It can be concluded that the treatment did have a positive effect on the improvement of grammar use in the case of both groups.

The following bar chart presents the data in a different format.
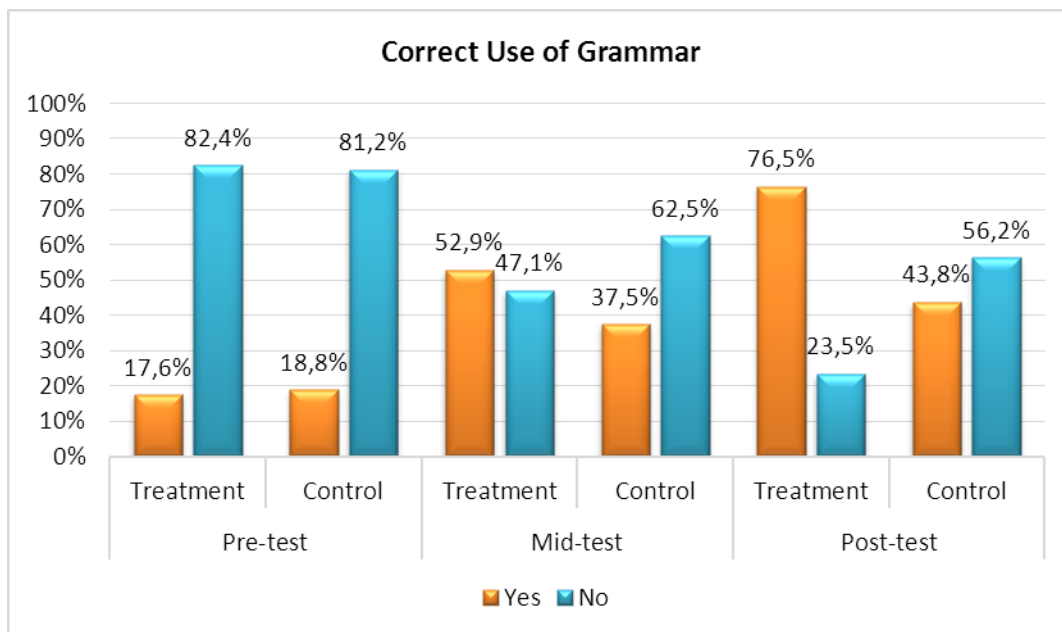


FIG. 1. Correct Use of Grammar

Source: Pre-test, Mid-test and Post-test

Figure 1 shows that about one-fifth of the participants (17.6%) in the treatment group were able to use grammar correctly by the criteria described above. However, more than four-fifths of them could not write grammatically well-formed sentences. The results are more or less the same for the control group (18.8% and 81.2% respectively). This implies that the two groups started out at a similar level since their scores are almost equivalent.

When looking at the mid-test results, one can see a striking improvement in the performance of the treatment group. The correct use of grammar increased by 35.3% from 17.6% to 52.9%. Without a doubt, the results of the control group have also improved from 18.8% to 37.5% - an increase of 18.7%.

Overall, however, there was a 15.4% difference in improvement in favor of the treatment group.

Let us now look at the post-test results. The improvement in the treatment group's performance is even more striking. By the end of the treatment, almost four-fifths of the participants were able to produce grammatically correct sentences. There was improvement in the control group's performance as well, but not nearly as significant as in that of the treatment group: the increase was a mere 6.3%.

The trends are clearly visible when the results are plotted as a line graph.
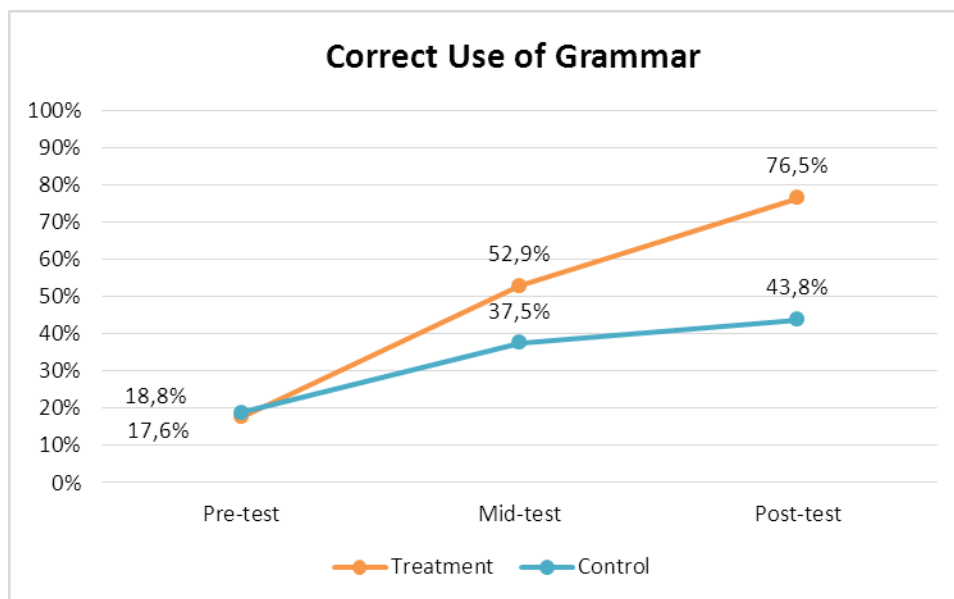


FIG. 2. Correct Use of Grammar Plotted as a Line Graph
Source: Pre-test, Mid-test and Post-test

Both groups improved throughout the treatment due to the fact that isolated grammar lessons were provided before the treatment. However, the treatment group outperformed the control group. This improvement makes evident the positive impact that the treatment had on the participants' language improvement in relation to the

grammar criteria. The positive results obtained at the end of the treatment in relation to the correct use of grammar in the written samples confirm Jantrasakul's findings (27) that demonstrated that critical thinking and language learning can be done simultaneously.

### 3.2 Correct Use of Vocabulary

The second indicator to measure language improvement was the accurate use of vocabulary. The results are presented in the table below.

| | | | Correct Use of Vocabulary | |
|---|---|---|---|---|
| | | | Yes | No |
| Pre-test | Treatment | f | 11 | 6 |
| | | % | 64.7% | 35.3% |
| | Control | f | 11 | 5 |
| | | % | 68.8% | 31.2% |
| Mid-test | Treatment | f | 16 | 1 |
| | | % | 94.1% | 5.9% |
| | Control | f | 15 | 1 |
| | | % | 93.8% | 6.2% |
| Post-test | Treatment | f | 14 | 3 |
| | | % | 82.4% | 17.6% |
| | Control | F | 16 | 0 |
| | | % | 100% | 0 |

Table 4. Correct Use of Vocabulary
Source: Pre-test, Mid-test and Post-test

The pre-test results in Table 4 demonstrate that both groups were using vocabulary at more or less the same level of correctness. Eleven out of 17 participants in the treatment group and 11 out of 16 participants in the control group used vocabulary correctly.

When the mid-test results are looked at, it is apparent that the frequency (number of participants) shows improvement in the treatment group halfway through the treatment. Sixteen out of 17 participants displayed the correct use of the vocabulary skill. Undoubtedly, the improvement in the control group's results was also high since 15 out of 16 participants were able to use vocabulary accurately within a sentence.

The post-test results indicate that the treatment group obtained a lower frequency (14 participants) than in the mid-test. The control group surpassed the treatment group by two frequencies (participants). Although the treatment group improved its frequency from 11 to 14, the control group outperformed the treatment group by the end of the study.

For ease of understanding, the results are shown below in percentage terms as well.
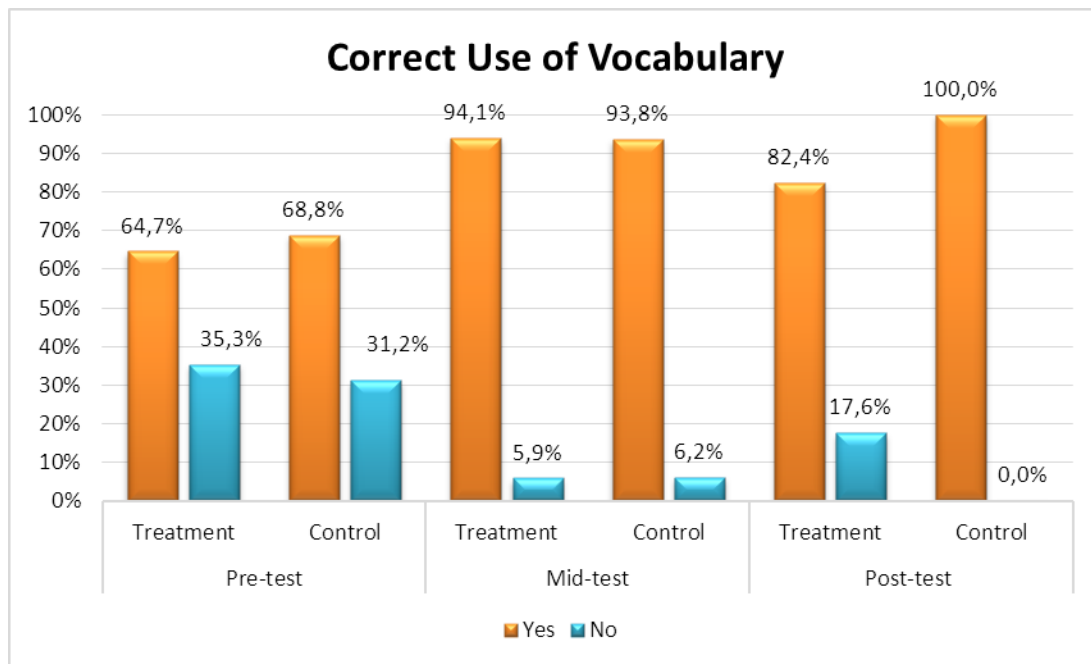


FIG. 3. Correct Use of Vocabulary
Source: Pre-test, Mid-test and Post-test

As shown in Figure 3, 64.7% of the participants in the treatment group were able to use vocabulary in context correctly at the time of the pre-test. This result demonstrates that the majority of the participants already possessed the ability to use vocabulary appropriately when writing. As for the control group, it can be seen that 68.8% of the participants were able to use vocabulary correctly. It is evident that in the pre-test both groups started out at more or less the same level since their scores were fairly similar in terms of vocabulary use.

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When one looks at the mid-test results, it is evident that the improvement of the treatment group was steep: the results went up from 64.7% to 94.1%. The participants in the control group improved as well since 93.8% of them displayed correct vocabulary usage. It is clear that both groups increased their scores considerably.

The post-test results revealed that 82.4% of the participants in the treatment group demonstrated the correct use of vocabulary in their written samples. The result compared to the mid-test decreased by 11.7%. In spite of the decrease of the treatment group's results in the last part of the assessment, the participants' correct use of vocabulary improved in a significant manner since the increase between the initial benchmark score and that of the post-test was 64.7%. At the same time, the control group outperformed the treatment group since 100% of the participants displayed appropriate use of vocabulary. This result will be interpreted in chapter four. The following line graph provides a clearer idea of the results.
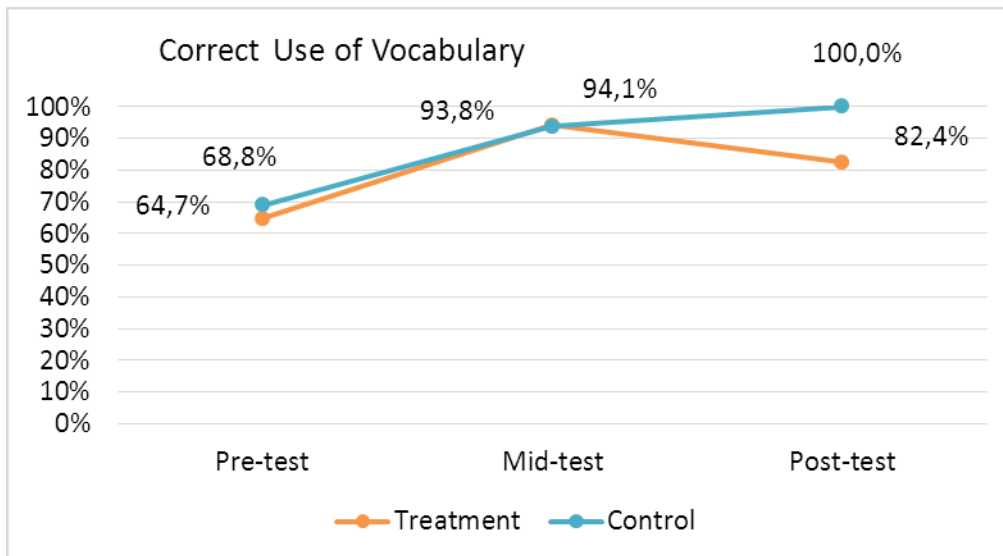


FIG. 4. Correct Use of Vocabulary Plotted as a Line Graph

Source: Pre-test, Mid-test and Post-test

The results about the correct use of vocabulary were not what we expected. Although both groups improved, the control group outperformed the treatment group.

This is not in line with what Jantrasakul suggested in the literature review. Jantrasakul findings suggested that critical thinking activities help trigger and reinforce the students' language use of vocabulary (28).  His findings could not be confirmed by the present study. Nevertheless, the treatment group's improvement should not be dismissed. The fact that the improvement in the treatment group was only marginal may due to the fact that during the treatment and the assessment part, the treatment group's attention was possibly more focused on transmitting well-reasoned arguments for solving problems rather than using vocabulary correctly. It is also evident that the use of grammar requires the participants to draw on their cognitive system to construct meaning (complex skill) while the correct use of vocabulary can be done merely by practicing this relatively simple skill.

## 4.  Critical Thinking Development Results

To answer the question whether task-based foreign language instruction in reading and writing could develop or improve learners' critical thinking skills, three indicators were used for each of Bloom's Taxonomy levels. These were whether the participants' answers represent competency, demonstrate adequate skills, or do not represent competency. Nevertheless, these three indicators were organized in tables of two entries due to the sample being limited to generate a results table of three entries. The indicators of "represents competency" and "demonstrates adequate skills" were grouped in a single column and the results of the indicator "does not represent competency" were grouped in a different column. The tables present the obtained results in frequency terms (number of participants) and percentage terms as well. The data obtained in percentage terms are also displayed in bar charts.

### 4.1 Knowledge Level

The ability to recall information (knowledge level) is presented in the following table in frequency and percentage terms.

|  |  |  | Knowledge | |
|---|---|---|---|---|
|  |  |  | **Represents Competency or Demonstrates Adequate Skill** | **Does not Represent Competency** |
| Pre-test | Treatment | F | 10 | 7 |
|  |  | % | 58.8% | 41.2% |
|  | Control | F | 15 | 1 |
|  |  | % | 93.8% | 6.2% |
| Mid-test | Treatment | F | 13 | 4 |
|  |  | % | 76.5% | 23.5% |
|  | Control | F | 15 | 1 |
|  |  | % | 93.8% | 6.2% |
| Post-test | Treatment | F | 16 | 1 |
|  |  | % | 94.1% | 5.9% |
|  | Control | F | 13 | 3 |
|  |  | % | 81.3% | 18.7% |

Table 5. Knowledge Level
Source: Pre-test, Mid-test and Post-test

Table 5 shows that 10 out of 17 participants in the treatment group were able to demonstrate competency or adequate skills when recalling information, while 15 out of 16 participants in the control group were at a similar level. This means that the participants in the control group performed better than the treatment group in the pre-test. There was a significant difference between the results of the treatment group and the control group. The control group performed better by five participants.

The results in the mid-test exhibited an improvement of the treatment group since in this part of the research project the number of participants performing well or adequately increased from 10 to 13. In spite of the treatment group's improvement, the control group continued showing better results (15 participants).
In conclusion, the treatment group's results increased while the control group's score remained the same.

Finally, in the post-test 16 participants of the treatment group reached the expected result of the knowledge level (namely, represented or demonstrated adequate skills). This implies that the treatment group continued improving while the control group's results were weaker, as only 13 participants showed competency or adequate skills in the knowledge level.

The outcomes can be observed in percentage terms displayed in the following bar chart:
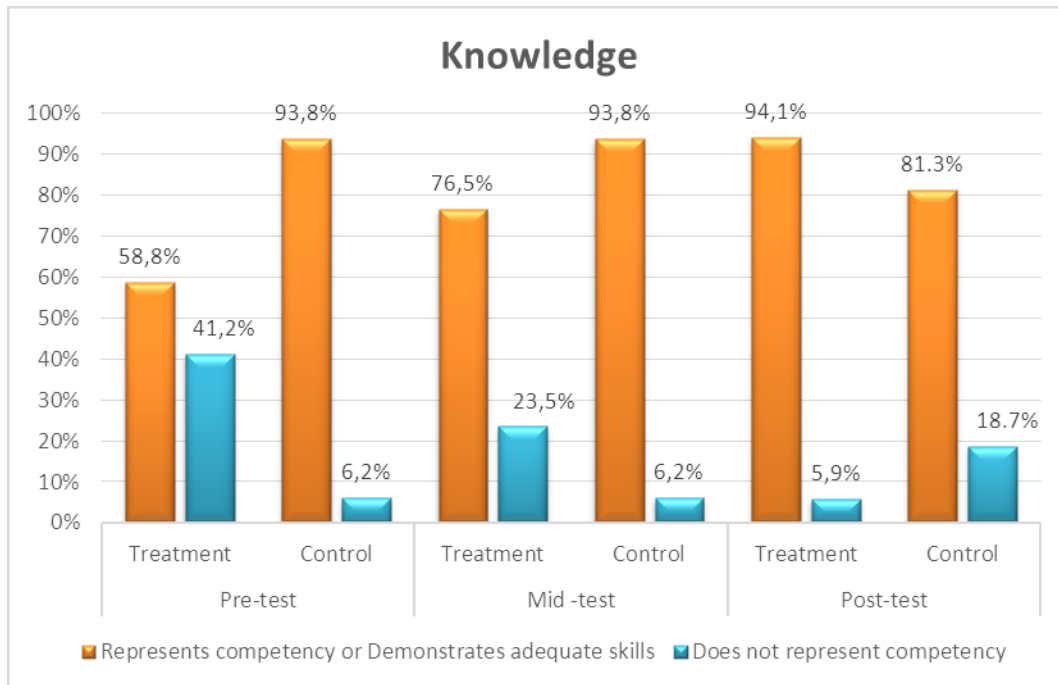


FIG. 5. Knowledge level
Source: Pre-test, Mid-test and Post-test

Figure 5 shows that 58.8% of the participants in the treatment group performed according to the required standard in the pre-test. This means that almost three-fifths reached a level representing competency or demonstrating adequate knowledge skills. However, the result for the control group was outstanding since 93.8% of the participants reached the required indicator. The results indicate that the two groups were very different in their performance regarding the first level of Bloom's Taxonomy.

As shown in Figure 5, the second assessment section brought about better results in the case of the treatment group (76.5%) that improved by 17.7% compared to the pre-test. In contrast, the control group's score stayed at the same level - 93.8%.

The post-test results showed a further significant improvement in the performance of the treatment group since 94.1% of the participants reached a score that represented competency or an adequate level in the knowledge skill. It is a remarkable fact that they improved from 58.8% (pre-test) to 94.1% (post-test) and almost all of them reached the desirable outcome. Somewhat surprisingly, the control group's results

decreased from 93.8% to 81.3%. The level of competency or adequate use of the knowledge level, therefore, decreased by 12.5%. At the end of the study, in spite of the fact that the control group performed better at the beginning of the study, the treatment group outperformed the control group by 12.8% in the post-test.

The results obtained in terms of improvement are plotted in the following line graph:
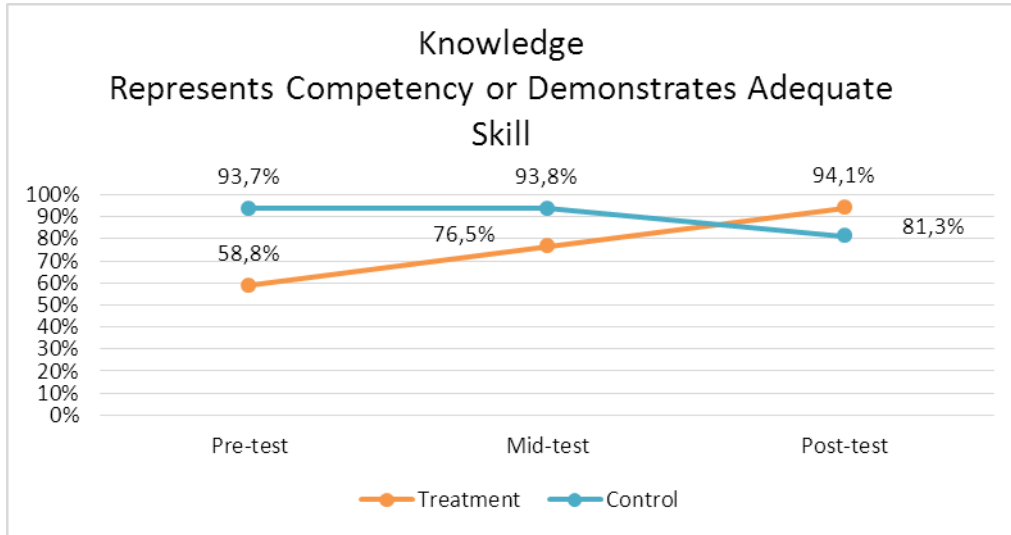


FIG. 6. Represents competency or adequate skill at Knowledge level

Source: Pre-test, Mid-test and Post-test

Knowledge level is the starting point for the development of complex thinking skills. Pineda affirms that knowledge is a crucial skill for storing and retrieving new linguistic information. Students gain insights about the way their memory functions through knowledge (49). This awareness helps them to recall information better. As it is considered the simplest intellectual ability, it is evident that both groups already possessed some of it. The pre-test results indicate that the knowledge ability was not the identical for both groups. However, it is interesting to observe in the post-test results that the treatment group improved and outperformed the control group whose results declined. This improvement shows that the treatment was effective in promoting memory functions such as recalling and retrieving information. Besides, one might state that this improvement was not only result of the students' natural maturation or previous experiences regarding this level.

**4.2 Comprehension Level**

Comprehension is the second cognitive domain in Bloom's Taxonomy. It focuses on how far someone is able to understand the meaning of information and state problems in their own words.

The results obtained are displayed in frequency terms in the following table:

| | | | Comprehension | |
|---|---|---|---|---|
| | | | Represents competency or Demonstrates adequate skill | Does not represent competency |
| Pre-test | Treatment | f | 1 | 16 |
| | | % | 5.9% | 94.1% |
| | Control | f | 2 | 14 |
| | | % | 12.5% | 87.5% |
| Mid-test | Treatment | f | 5 | 12 |
| | | % | 29.4% | 70.6% |
| | Control | f | 3 | 13 |
| | | % | 18.8% | 81.2% |
| Post-test | Treatment | f | 11 | 6 |
| | | % | 64.7% | 35.3% |
| | Control | f | 9 | 7 |
| | | % | 56.3% | 43.7% |

Table 6. Comprehension Level
Source: Pre-test, Mid-test and Post-test

As can be seen in Table 6, there was only one participant in the treatment group who demonstrated competency or adequate use of the comprehension level or skill. This means that the majority of the participants in the treatment group had difficulties in understanding information or stating problems in their own words. A similar outcome can be observed when comparing the results with the control group, since only two out of 16 participants demonstrated competency with regard to this skill. These results indicated that there was no significant difference between the two groups at the pre-test stage.

As regards the mid-test results, the treatment group showed some improvement in the use of the comprehension skill since the frequency (number of participants) increased to five while the control group increased its frequency to three. In other words, both groups improved in the mid-test; however, the improvement was not very significant.

At the end of the study, the treatment group improved in frequency terms since at this point the number of participants reaching the required level increased by six. This means that 11 participants were competent or demonstrated adequate use of this skill. Nine participants in the control group displayed a satisfactory level of this ability. There was an improvement in both groups; however, the treatment group outperformed the control group by two participants.

The bar chart below displays the results in a different format.
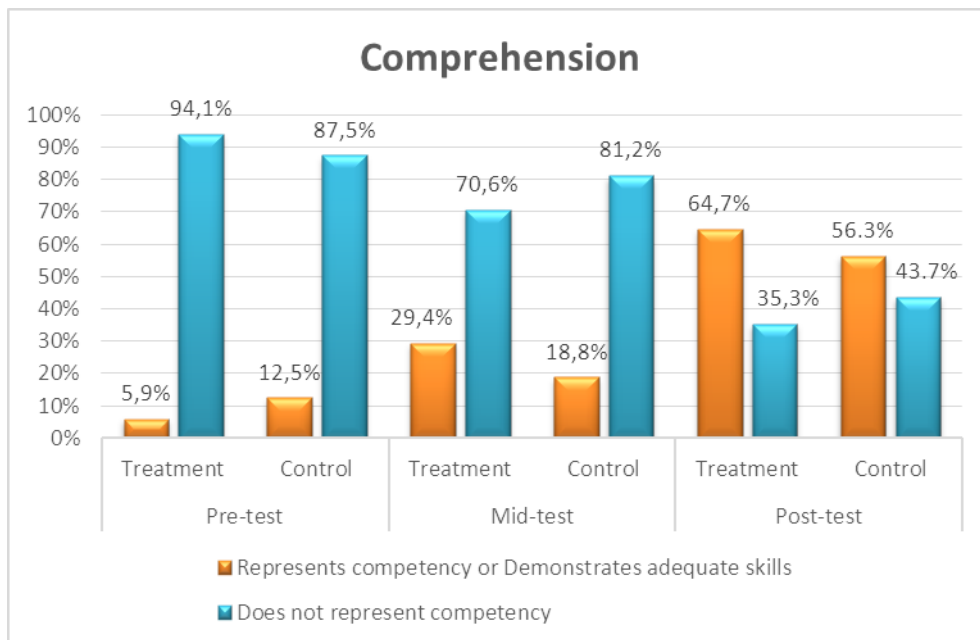


FIG. 7. Comprehension level
Source: Pre-test, Mid-test and Post-test

As shown is Figure 7, the pre-test results demonstrated that 5.9% of the participants in the treatment group displayed competency or adequate use of the comprehension skill. Nevertheless, the control group demonstrated that 12.5% of them reached the expected outcome. These results show that both the treatment group and the control group were at a similar, low level of comprehension with a difference of 6.6%.

In the pre-test results, the treatment group showed a positive improvement since 29.4% of the participants were competent in understanding information. In contrast, only 18.8% of the participants in the control group reached the desirable outcome. They had improved by 6.3%. Although the control group did improve, this improvement was not

that significant. The treatment started showing its positive impact on the comprehension skill at this part of the study, since the treatment group equaled and even outperformed the control group.

Figure 7 also demonstrates that the post-test results for the treatment group continued increasing. It can be seen that 64.7% of the participants demonstrated competency or adequate use of the comprehension skill. The improvement was significant since the results went up from 5.9% (pre-test) to 64.7% (post-test). As compared to this figure, 56.3% of the participants in the control group were able to use the comprehension skill adequately. It is evident that the treatment did have a positive effect on this skill, since the treatment group showed a progressive improvement and outperformed the control group by 12.5% by the end of the treatment.

The results described above are included in the line graph below.
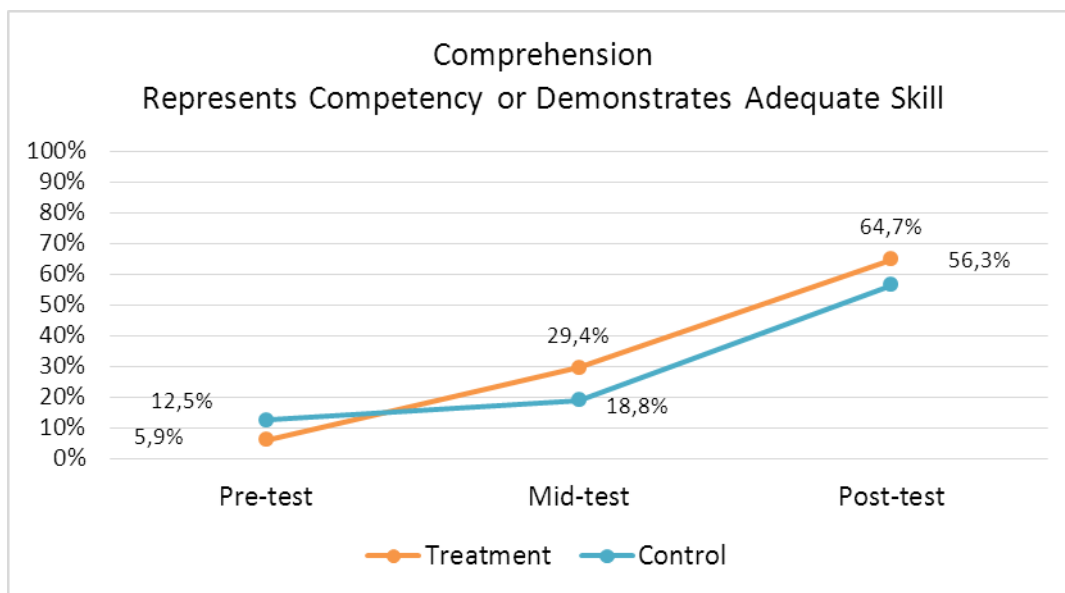


FIG. 8. Represents competency or adequate skill at Comprehension level
Source: Pre-test, Mid-test and Post-test

### 4.3 Application Level

The application skill required the participants to apply what they have learned in novel situations. This is the third level in Bloom's Taxonomy. The following table shows the results regarding this cognitive skill according to frequencies.

| | | | Application | |
|---|---|---|---|---|
| | | | Represents competency or Demonstrates adequate skill | Does not represent competency |
| Pre-test | Treatment | f | 4 | 13 |
| | | % | 23.5% | 76.5% |
| | Control | f | 2 | 14 |
| | | % | 12.5% | 87.5% |
| Mid-test | Treatment | f | 8 | 9 |
| | | % | 47.1% | 52.9% |
| | Control | f | 3 | 13 |
| | | % | 18.8% | 81.2% |
| Post-test | Treatment | f | 8 | 9 |
| | | % | 47.1% | 52.9% |
| | Control | f | 2 | 14 |
| | | % | 12.5% | 87.5% |

Table 7. Application Level

Source: Pre-test, Mid-test and Post-test

As shown in Table 7, four out of 17 participants demonstrated competency when it came to the application level or skill. In contrast, in the control group only two participants were able to display adequacy as regards this skill. In conclusion, the treatment group outperformed the control group by two participants. This means that both groups were at a fairly similar level of being able to apply what they have learned in novel situations.

In the mid-test, the number of participants using the application skill increased in the treatment group (eight participants). This was a significant improvement at this part of the study. However, in this part of the study, the number of participants using the application skill only increased by three, implying that the treatment group significantly outperformed the control group, namely, by five participants.

When looking at the post-test results, the frequency of the participants with competent use of the application skill continued being the same as in the mid-test (eight participants). However, the control group frequency decreased to two. This was the same result as in the pre-test. It is evident that the treatment group surpassed the control group by a noticeable difference of six participants.

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The following table shows the results described above in percentage terms.
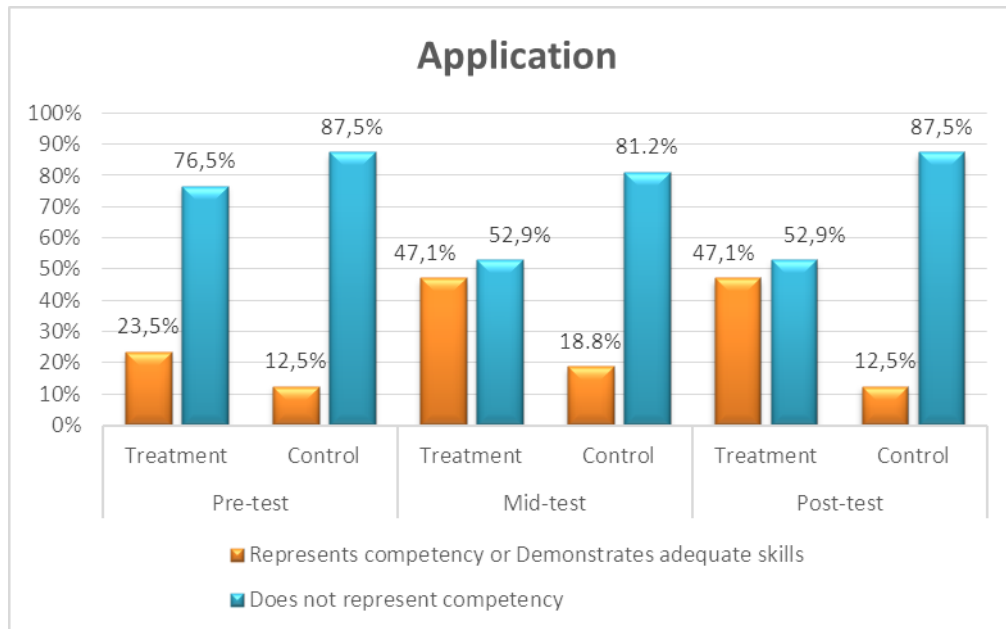


FIG. 9. Application Level
Source: Pre-test, Mid-test and Post-test

As Figure 9 above shows, 23.5% of the participants in the treatment group were able to apply what they have learned in new situations. This means that 76.5% of them had difficulties when applying this skill. As compared to this, only 12.5% of the participants in the treatment group demonstrated a competent use of this skill. At the beginning of the study, therefore, both groups appeared to have difficulties when using what they have learned in new situations.

Figure 10 further shows that the participants in the treatment group improved their performance considerably (47.1%) in the middle part of the study. This group improved by 23.6%, meaning that almost half of the participants were competent when using the application skill. In contrast, only 18.8% of the participants in the control group displayed the same ability. Their performance did not improve noticeably since they only progressed from 12.5% (pre-test) to 18.8% (mid-test). When comparing the results of both groups, it can be established that the treatment group outperformed the control group by 28.3%. It is evident that the treatment showed its positive effect in the mid-test results.

The post-test results in Figure 10 show that the result obtained by the treatment group in the mid-test stayed the same at the end of the study (41.7%). There was no improvement after the second part of the treatment. However, the control group's performance showed a small amount of decrease, since only 12.5% of them were able to use the application skill in a competent manner as opposed to the 18.8% reached before. All in all, the treatment group did not improve during the second part of the treatment; however, this group outperformed the control group by 34.6% at the time of the post-test.

The improvement that each group demonstrated during the study is shown in the following graph:
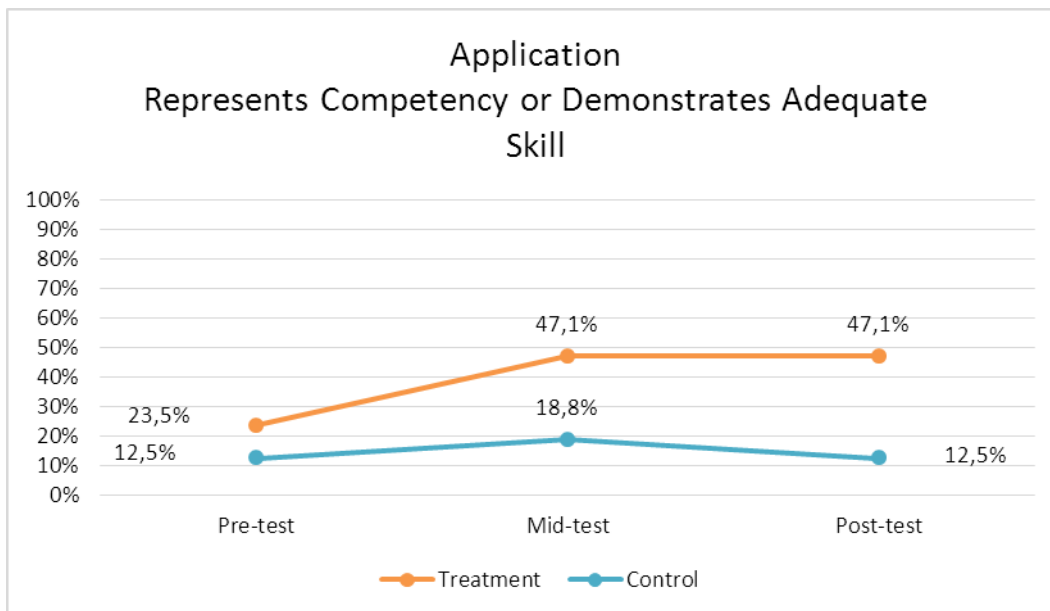


FIG. 10. Represents competency or adequate skill at Application level

Source: Pre-test, Mid-test and Post-test

## 4.4 Analysis Level

In this cognitive skill, the participants were expected to separate a whole into component parts. As part of this skill, the participants should be able to analyze patterns and organize ideas. The results in the following table provide an insight into the results obtained in terms of frequency.

| | | | Analysis | |
|---|---|---|---|---|
| | | | **Represents competency or Demonstrates adequate skill** | **Does not represent competency** |
| Pre-test | Treatment | f | 1 | 16 |
| | | % | 5.9% | 94.1% |
| | Control | f | 3 | 13 |
| | | % | 18.8% | 81.2% |
| Mid-test | Treatment | f | 6 | 11 |
| | | % | 35.3% | 64.7% |
| | Control | f | 5 | 11 |
| | | % | 31.3% | 68.7% |
| Post-test | Treatment | f | 12 | 5 |
| | | % | 70.6% | 29.4% |
| | Control | f | 3 | 13 |
| | | % | 18.8% | 81.2% |

Table 8. Analysis Level

Source: Pre-test, Mid-test and Post-test

Table 8 shows that only one out of 17 participants in the treatment group was able to use the analysis level or skill with competency or adequacy. However, the control group had three participants displaying the adequate use of this skill. The control group (three participants) outperformed the treatment group (one participant). This implies that the difference between groups was significant. Let us see the results of the mid-test. After the first part of the administration of the treatment, the number of participants using the analysis skill increased to six in the treatment group. The control group also increased the number of participants (five) using this skill in an adequate manner. These results show that the treatment group significantly improved since it equaled and surpassed the control group.

When looking at the post-test results, a further improvement can be observed in the treatment group. The frequency of participants with competency or adequate use of the analysis skill increased to 12. There were only five participants who did not reach the required indicator. On the other hand, the control group decreased to three the number of participants showing competent use of the skill. This implies that the majority of the participants did not reach the expected outcome. It is evident that the treatment group progressively improved during the study while the control group more or less maintained

its level during the whole study. The treatment group outperformed the control group by nine participants. The bar chart below highlights the results in percentage terms.
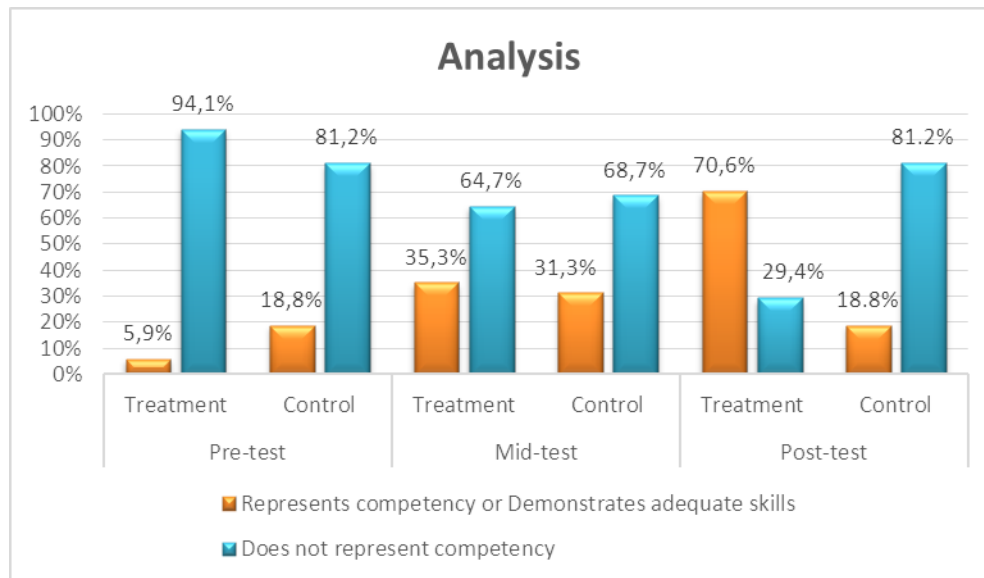


FIG. 11. Analysis Level

Source: Pre-test, Mid-test and Post-test

As shown in Figure 11, only 5.9% of the participants in the treatment group were able to perform according to the stated requirements of the pre-test. This means that there was room for improvement, since 94.1% of the participants needed to develop their analysis skill. However, 18.8% of the participants in the control group demonstrated competency with this skill. The results obtained in the pre-test imply that the difference of level between the groups was considerable since the control group surpassed the treatment group by 12.9%.

The mid-test results demonstrated that the treatment showed its positive impact on the treatment group since 35.3% of them improved with regard to the use of the analysis skill. As for the control group, the result of 31.3% also constitutes improvement, but this was not sufficient to equal the progress in the treatment group. After the first part of the treatment, both groups obtained fairly similar results.

As for the post-test results, Figure 10 shows considerable advancement in favor of the treatment group, since 70.6% of the participants demonstrated competency or adequate use of the analysis skill. Contrary to this result, only 18.8% of the participants in the control group reached the required outcome. The conclusion, therefore, is that the

treatment positively affected the performance of the treatment group since its participants outperformed the control group by 51.8%.

The trends about both groups' improvement are visible when the results are plotted as a line graph.
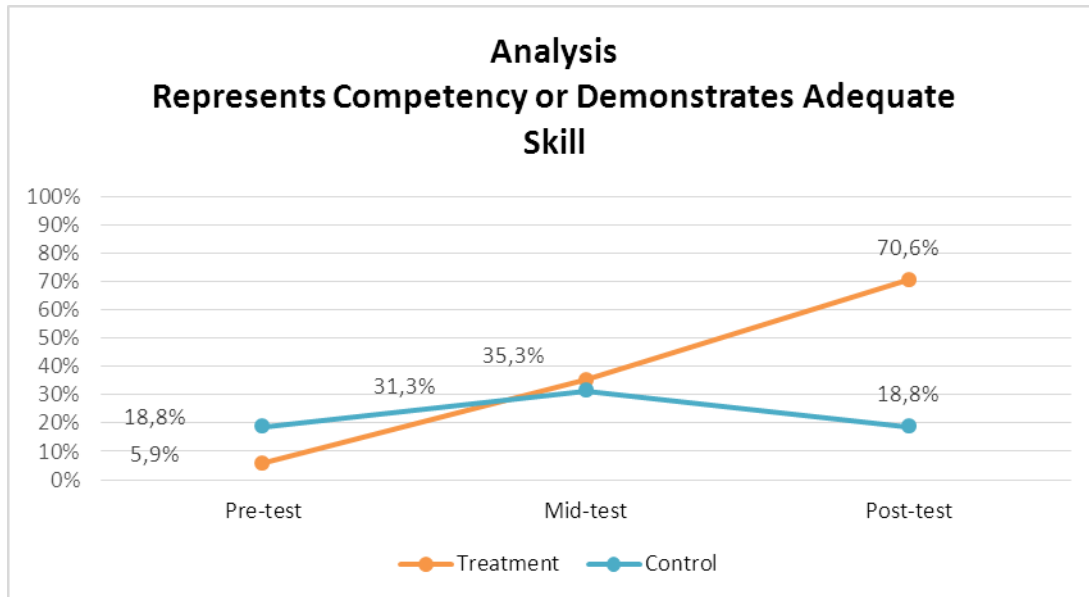


FIG. 12. Represents competency or adequate skill at Analysis level
Source: Pre-test, Mid-test and Post-test

## 4.5 Synthesis Level

This skill is the opposite of the analytic skill and, therefore, the participants were expected to put component parts together to form a whole. This level challenged the participants to create new patterns or structures based on what they have learned. They needed to construct or produce original ideas in order to propose alternative solutions through the combination of elements in new ways. The results of this skill are shown in frequency terms in the following table:

| | | | Synthesis | |
|---|---|---|---|---|
| | | | Represents competency or Demonstrates adequate skill | Does not represent competency |
| Pre-test | Treatment | f | 2 | 15 |
| | | % | 11.8% | 88.2% |
| | Control | f | 0 | 16 |
| | | % | 0 | 100% |
| Mid-test | Treatment | f | 6 | 11 |
| | | % | 35.3% | 64.7% |
| | Control | f | 3 | 13 |
| | | % | 18.8% | 81.2% |
| Post-test | Treatment | f | 11 | 6 |
| | | % | 64.7% | 35.3% |
| | Control | f | 3 | 13 |
| | | % | 18.8% | 81.2% |

Table 9. Synthesis Level

Source: Pre-test, Mid-test and Post-test

The results obtained in the pre-test show that only two out of 17 participants displayed the required synthesis skill. Furthermore, a total lack of this skill was observed in the control group. These results suggest that there was a striking absence of this skill in both groups. Besides, the results indicated that both groups were fairly similar from the point of view of how far they were applying the skill of synthesis (or rather not applying it much at all).

When observing the mid-test results, the number of participants using the synthesis skill with competency increased to six in the treatment group. The treatment group had improved regarding this skill after the first part of the treatment. The control group also improved since three participants were able to use this skill with competency or adequacy. However, even though both groups improved, the number of participants using the synthesis skill competently was higher in the treatment group than in the control group.

The post-test results showed positive improvement in the case of the treatment group since the number of participants displaying the synthesis skill increased to 11. In other words, the majority of the participants reached the expected level. As opposed to this result, there was no improvement in the control group. The number of participants with synthesis skill in the control group did not increase. The lack of this skill in the

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control group was evident right up until the end of the study. In the end, the treatment group outperformed the control group by eight participants.

The results obtained are presented in percentage terms in the following bar chart:
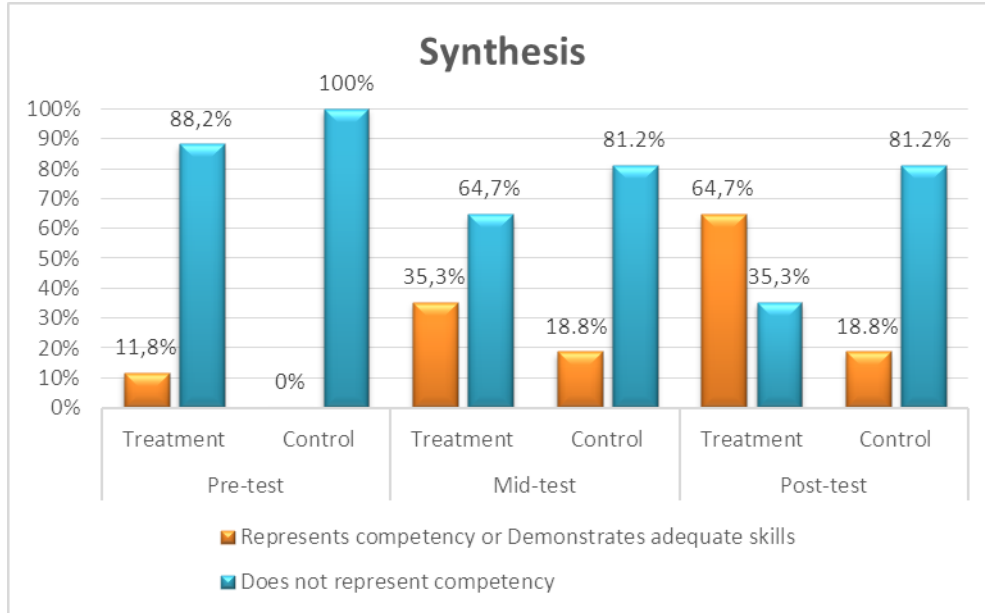


FIG. 13. Synthesis Level

Source: Pre-test, Mid-test and Post-test

Figure 13 demonstrates that initially only 11.8% of the participants of the treatment group were able to demonstrate adequate use of the synthesis skill, while the other 88.2% of them were not aware of how this skill should be employed. Moreover, none of the participants in the control group was able to use the synthesis skill adequately. This means that the analysis skill was an unfamiliar ability for both groups.

When looking at the mid-test results, it can be seen that 35.3% of the participants in the treatment group exhibited competency or adequate use of the synthesis skill. The treatment group had improved by 23.5% compared with the results obtained in the pre-test. The positive impact of the treatment started after the first phase of instruction. The control group also improved slightly, with 18.8% of the participants showing the adequate use of this skill. When comparing the results between the two groups, the improvement of the treatment group is evident, even though the improvement was not spectacular after the first phase of the study.

In the post-test results, 64.7% of the participants in the treatment group showed competency or adequacy when using the synthesis skill. This suggests that members of the experimental group had improved by leaps and bounds by the end of the study. The participants were competent when carrying out activities such as creating new ideas (put component parts together to form a whole), predicting, inferring, and composing, etc. Taking the treatment process as a whole, the treatment group improved by 52.9% from 11.8% (pre-test) to 64.7% (post-test). In contrast, only 18.8% of the participants in the control group demonstrated the adequate use of this skill. This implies that the participants in the control group with adequate synthesis skill did not improve any further than the results achieved in the mid-test. The obvious conclusion is that the treatment group managed to achieve a much higher degree of improvement (64.7%) than the control group (18.8%). The following line graph shows the improvement that each group achieved during the application of the treatment.
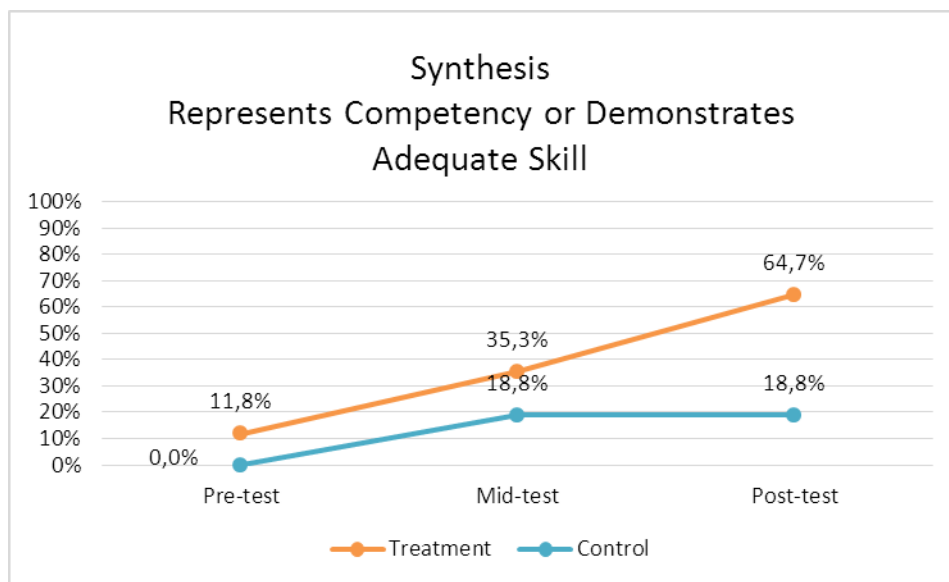


FIG. 14. Represents competency or adequate skill at Synthesis level
Source: Pre-test, Mid-test and Post-test

## 4.6 Evaluation Level

The most complex skill in Bloom's Taxonomy is "evaluation" which requires the participants to make judgments about rules, principles or ideas. The table below shows the results obtained after the treatment was administered.

|  |  |  | Evaluation | |
|---|---|---|---|---|
|  |  |  | Represents competency or Demonstrates adequate skill | Does not represent competency |
| Pre-test | Treatment | F % | 1 5.9% | 16 94.1% |
|  | Control | f % | 0 0 | 16 100% |
| Mid-test | Treatment | f % | 8 47.1% | 9 52.9% |
|  | Control | f % | 2 12.5% | 14 87.5% |
| Post-test | Treatment | f % | 8 47.1% | 9 52.9% |
|  | Control | f % | 1 6.3% | 15 93.7% |

Table 10. Evaluation Level

Source: Pre-test, Mid-test and Post-test

As shown in Table 10, the results obtained in the pre-test indicate that one out of 17 participants in the treatment group was competent using the evaluation skill. This indicates that there was a lot of room for improvement since the great majority of the participants lacked this skill. Furthermore, a total absence of this skill was evident in the case of the control group. When looking at the performance of the two groups, it seems justified to assume that they were comparable with regard to the low level (or total lack) of the skill in question.

The mid-test results showed an improvement in the case of the treatment group, since eight out of 17 participants were able to use the evaluation skill with competency or adequacy. Half of them had developed this ability during the first part of the treatment. This shows the positive impact that the designed activities had on the improvement of the evaluation skill. As opposed to the treatment group's result, there were only two participants in the control group that were able to demonstrate the use of this skill. The difference is, therefore, six in favor of the treatment group.

At the end of the treatment, the number of participants in the treatment group showing competency with the evaluation skill remained the same (eight participants). Although there was no improvement during the second part of the study, the level of the participants in the treatment group was still high. Interestingly, the number of

participants who were able to use this skill in the control group fell back to one. This implies that during the second part of the treatment neither of the groups showed any improvement regarding the evaluation skill. However, it is a fact that the treatment group maintained its frequency (number of participants) and outperformed the control group by seven participants.

The results are presented in percentage terms in the following bar chart:
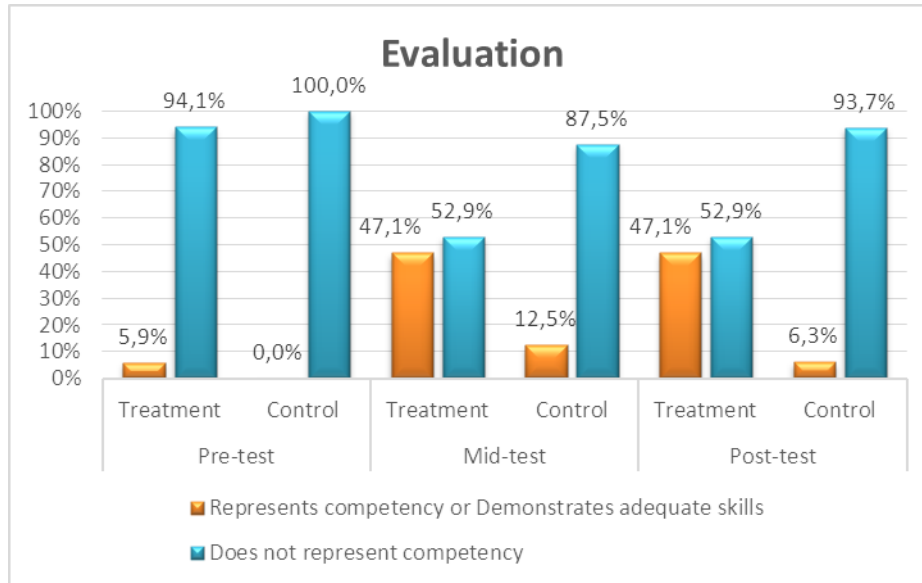


FIG. 15. Evaluation Level

Source: Pre-test, Mid-test and Post-test

Figure 15 shows that 5.9% of the participants in the treatment group displayed the evaluation skill, while none of the participants in the control group was able to use this skill. The results in the pre-test for both groups are comparable but very low (or zero).

The mid-test results showed that 47.1% of the participants in the treatment group were able to carry out activities such as comparing ideas, judging information, recommending and solving problems. This implies that their evaluation skill or level had improved considerably. The treatment group's performance improved by 41.2% in comparison to the pre-test results. As compared with this result, the control group's performance showed only a modest improvement (12.5%). When comparing the results, it is clear that the treatment group outperformed the control group by 34.6%.

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Finally, let us look at the post-test results. There was no improvement of the treatment group in this part of the study. The score reached (47.1%) in the mid-test did not increase any further after the second part of the treatment. The reason for there not being any change might be due to the fact that, according to Bloom's Taxonomy, evaluation is the most complex skill in critical thinking. Therefore, it is all the more important to stress the improvement that the treatment group had achieved overall with regard to such a complex skill. Conspicuously, the control group was not able to show any improvement of the evaluation skill. Although this group improved  slightly in the mid-test (12.5%) results, their performance decreased by the end of the study (6.3%). The impact of the treatment is evident since the treatment group outperformed the control group by 40.8%.

The trends are clearly visible when the results are plotted as a line graph.
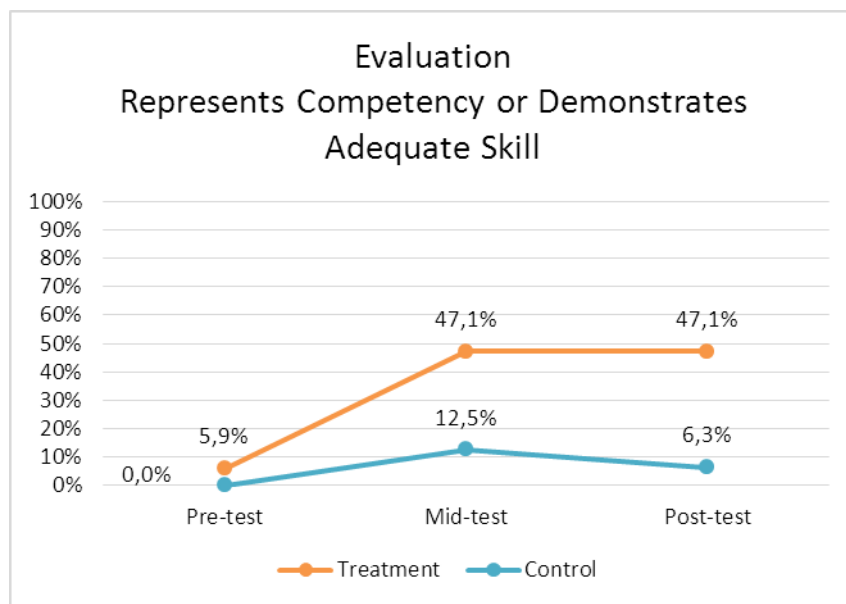


FIG. 16. Represents competency or adequate skill at Evaluation level
Source: Pre-test, Mid-test and Post-test

Once the results regarding language improvement and critical thinking development were analyzed, it was possible to observe the positive effects that the treatment had on language and thinking skills improvement.

As for the results on language improvement, it can be concluded that the treatment had positive effects on grammar improvement. Interestingly, in vocabulary terms the control group slightly outperformed the treatment group.

The improvement regarding language improvement in the treatment and control group is displayed in the following figure:
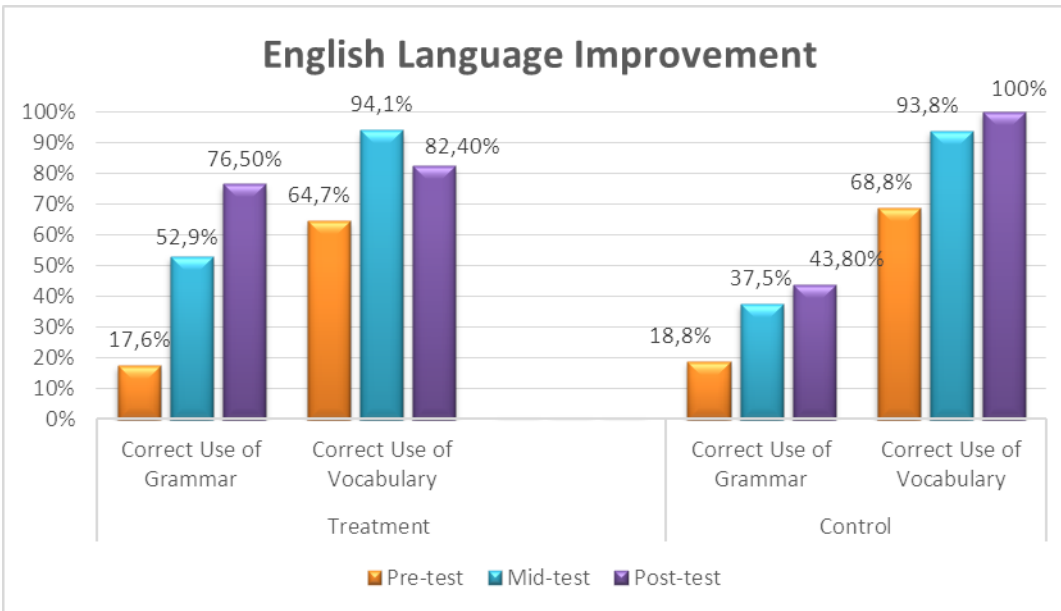


FIG. 17. English Language Improvement of the Treatment and Control Groups
Source: Pre-test, Mid-test and Post-test

Figure 17 provides evidence that task-based activities do promote English language improvement in terms of grammaticality. This result is line with Pineda's findings which demonstrated that "language competence and criticality are on-going processes" that can be developed through "thought-provoking material" (45). It is felt that for the present study, the material designed for the treatment has effectively fulfilled this requirement.

When looking at the results on critical thinking skills development, it can be observed that the treatment administered to the participants in the treatment group did have a positive impact. Namely, the treatment group progressively improved and outperformed the control group in all the critical thinking skills or levels according to Bloom's Taxonomy.

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The improvement that the treatment brought about regarding critical thinking skills in the treatment group is displayed in the following figure:
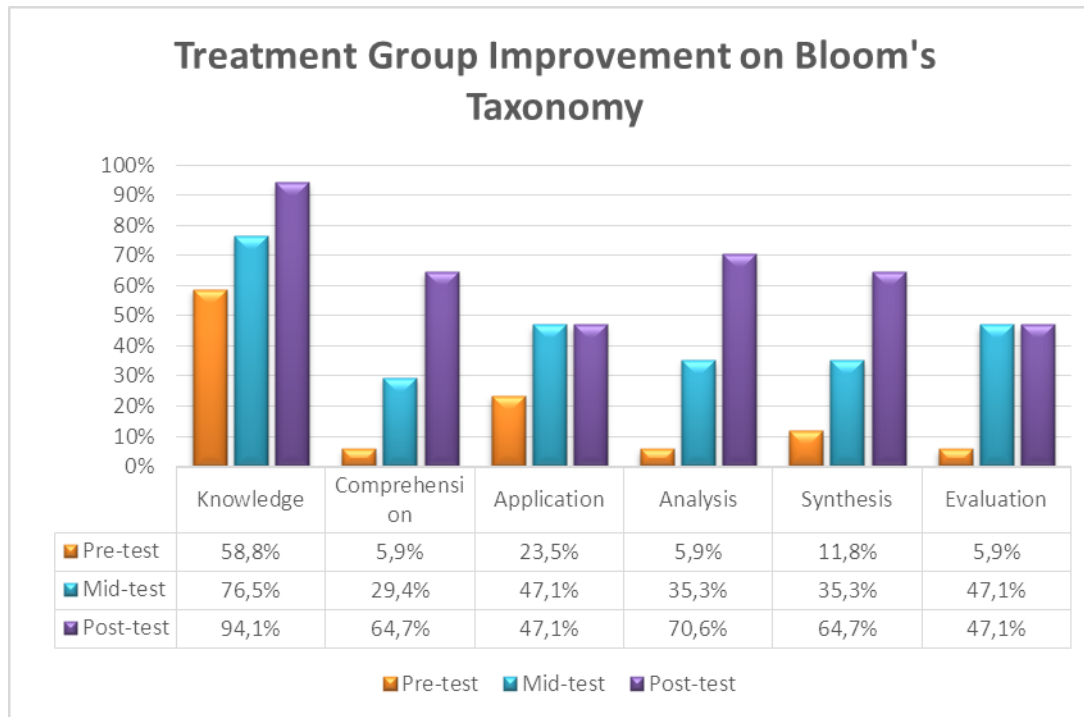


FIG. 18. Treatment Group Improvement according to each Level in Bloom's Taxonomy
Source: Pre-test, Mid-test and Post-test

Figure 18 demonstrates that the treatment group progressively improved and the participants were able to demonstrate competency or adequate use of all the skills presented in Bloom's Taxonomy. However, it is clear that the participants' performance varied depending on the level of the thinking process involved. In agreement with Veeravagu's findings (208), the higher scores were obtained in the lower levels of thinking processes, while the complex levels were characterized by lower scores. This means that the more complex the thinking level, the lower scores. The knowledge and comprehension levels showed that the treatment was able to help the treatment group to reach the scores of the control group (that did better in the pre-test) and even surpass the performance of the latter (see Figures 6 and 8).

It could be assumed, however, that lower-thinking skills (knowledge, comprehension and application) are the base from where to reach higher-order skills (analysis, synthesis, and evaluation). It is important to point out that the positive results

obtained in this study are in line with what is stated by Stratton, namely, that higher-order thinking skills can be accomplished after the lower-order skills are put in use (39). The complex skills improvement in this study was possible since lower-order thinking skills were achieved. He also stressed that knowledge and comprehension require mere memorization and simple understanding while higher-order thinking involves a more active and creative processing of information. The participants have mastered these two skills and, to some extent, the third one (application) because traditional instructional approaches in Ecuador have always been oriented to those outcomes (memorization and understanding).

The participants' critical thinking development was evident in the higher-order thinking skills (analysis, synthesis, and evaluation). The results demonstrate that task-based activities have positive effects on participants' critical thinking skills, and the use of these skills have increased considerably.

Finally, a ten-question answer sheet was administered with dichotomous and open-ended questions aimed at finding out the students' perceptions regarding their improvement in reading and writing skills. The purpose was to establish the degree of their appreciation and points of view about the activities carried out during the treatment. They were also expected to provide a rationale or justification for their choices. The data were registered and tally counted following which they were statistically and qualitatively analyzed.

## 5. Questionnaire Results.

Above we have described, interpreted, and analyzed the quantitative data. In the following section we look at the qualitative part of the study, namely, consider the data gathered by the questionnaire applied at the end of the treatment. The questionnaire was designed in order to gauge the participants' perceptions about their improvement in both language and critical thinking skills as well as their reaction to the classroom instruction and activities.

The questionnaire consisted of 10 questions and was applied only to the treatment group. The results are presented with the help of tables and bar charts for each question.

**Question 1.** Do you think reading and writing skills are important in English?

The following table and figure demonstrate the answers given to Question 1.

| Do you think reading and writing skills are important in English? | |
| --- | --- |
| **Answer** | **Frequency** |
| Yes | 17 |
| No | 0 |
| TOTAL | 17 |

Table 11. Participants' Answers to Question 1

Source: Questionnaire
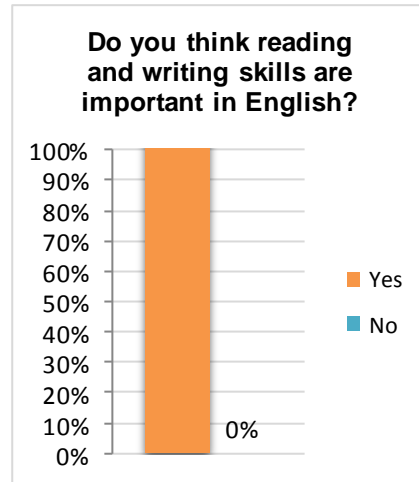


FIG. 19. Participants' Answers to Question 1

Source: Questionnaire

Table 11 shows that all the students consider reading and writing activities as important skills when learning the English language. Figure 19 reiterates that 100% of the participants agree that reading and writing are important. The participants were asked to explain their answers and all of them stated that these activities could improve their English learning. This means that the participants are aware of the improvement that they might have if these skills are given due emphasis in the English classroom.

**Question 2.** Which story did you like best? Choose one option

| Which story did you like best? Choose one option | |
|---|---|
| **Story Title** | **Frequency** |
| a) The Blind Side | 3 |
| b) DVD Horror! | 0 |
| c) Storytelling (rattlesnakes) | 0 |
| d) The United States of America | 0 |
| e) Twilight | 2 |
| f) Khalid's Dream | 0 |
| g) The Impossible | 0 |
| h) Agony Aunt Letter | 2 |
| i) Personality Quiz | 0 |
| j) Last Day of School | 10 |
| **TOTAL** | **17** |

Table 12. Participants' Answers to Question 2

Source: Questionnaire
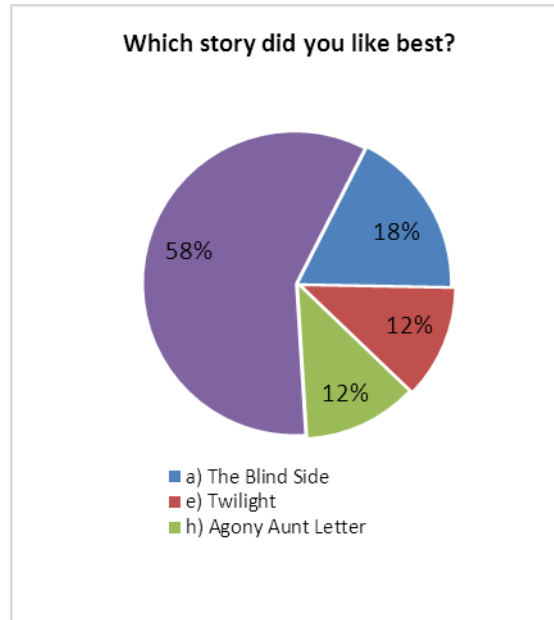


FIG. 20. Participants' Answers to Question 2

Source: Questionnaire

As shown in Table 12 and Figure 20, ten (58%) participants out of 17 answered that their favorite story was "Last Day of School". Three participants (18%) preferred "The Blind Side" story. Two participants (12%) chose "Aunt Agony Letter" and another two participants (12%) liked the "Twilight" story. The clear favorite was a story adapted by the researcher and it dealt with the participants' experiences during the school year. The other stories were about personal achievement, physical appearance, and an impossible love. The results confirmed that the learners are actively involved when the issues are rooted in their reality. As Geok-chin Tan et al. state, the learners' experiences lead them to the creation of concepts (knowledge) when they interact with their social environment.

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**Question 3.** Which part of the class did you like best? Circle one option.

| Which part of the class did you like best? Circle one option | |
|---|---|
| **Three-phase Lesson** | **Frequency** |
| a) Anticipation activities | 5 |
| b) Building Knowledge activities | 3 |
| c) Consolidation activities | 9 |
| **TOTAL** | **17** |

Table 13. Participants' Answers to Question 3

Source: Questionnaire
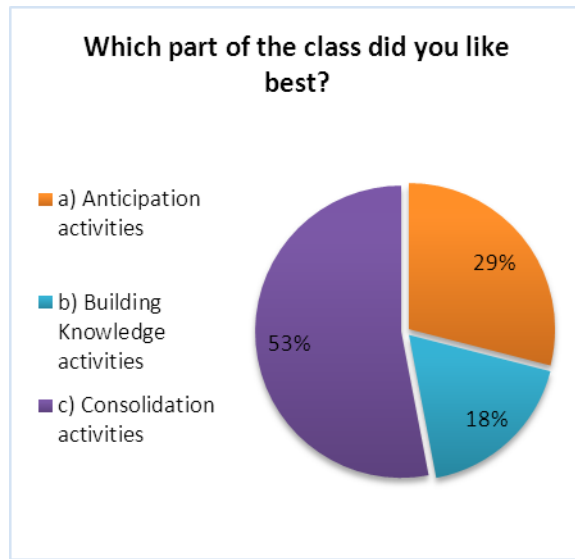


FIG. 21. Participants' Answers to Question 3

Source: Questionnaire

The purpose of this question was to establish which phase of the lesson was most appealing to the participants. As shown in Table 13 and Figure 21, the consolidation phase (53%) was the preferred one, followed by the anticipation phase (29%) and the building knowledge phase (18%). Nine participants out of 17 chose the consolidation phase. During this part of the lesson the participants were asked to write response letters or short essays, reflect and give solutions, or write from different points of view. In other words, they had to reflect on what they had learned in order to carry out problem-solving tasks. This was the most complex phase since the participants were expected to use higher-order thinking skills. It is possible that the sense of achievement when discovering solutions to problems made the participants think that they have improved their thinking skills.

**Question 4.** Please rate the following statements between 1 and 6.

This question consisted of four statements and the participants had to rate each of them by assigning a number between 1 (strongly agree) and 6 (strongly disagree). The participants' answers to each statement are presented below.

**Statement 1.** The use of reading and writing activities helped me to share my ideas by being able to support them better.

| The use of reading and writing activities helped me to share my ideas by being able to support them better. | |
|---|---|
| **Option** | **Frequency** |
| strongly agree | 8 |
| Agree | 4 |
| somewhat agree | 4 |
| somewhat disagree | 1 |
| Disagree | 0 |
| strongly disagree | 0 |
| **TOTAL** | **17** |

Table 14. Participants' Answers to Question 4, Statement 1

Source: Questionnaire
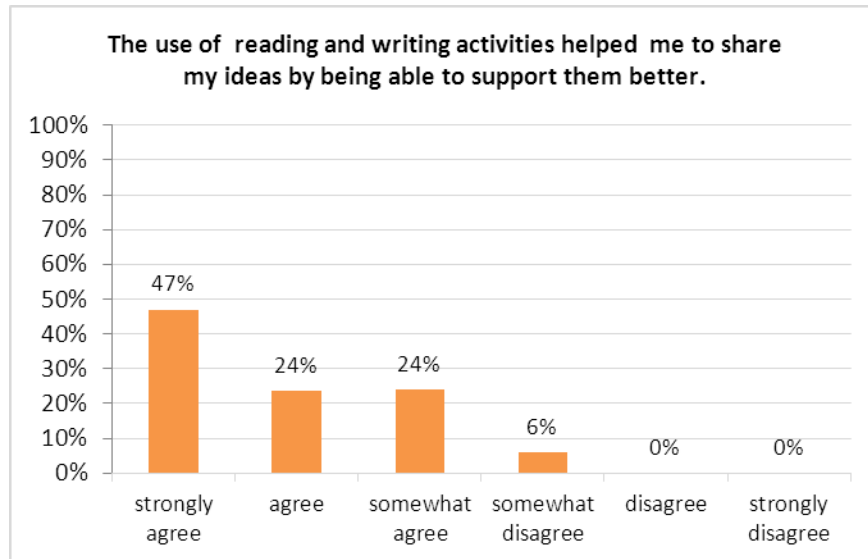


FIG. 22. Participants' Answers to Question 4, Statement 1

Source: Questionnaire

Table 14 shows that eight participants strongly agreed with the statement while four participants agreed and another four participants agreed to some extent with it. In percentage terms, Figure 22 above indicates that 47% of the participants felt that they

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were better able to support ideas as a result of the reading and writing activities that had been done during the lessons.

**Statement 2.** I enjoyed working on the reading and writing activities.

| I enjoyed working on the reading and writing activities. | |
|---|---|
| **Option** | **Frequency** |
| strongly agree | 3 |
| Agree | 10 |
| somewhat agree | 3 |
| somewhat disagree | 1 |
| Disagree | 0 |
| strongly disagree | 0 |
| TOTAL | **17** |

Table 15. Participants' Answers to Question 4, Statement 2
Source: Questionnaire
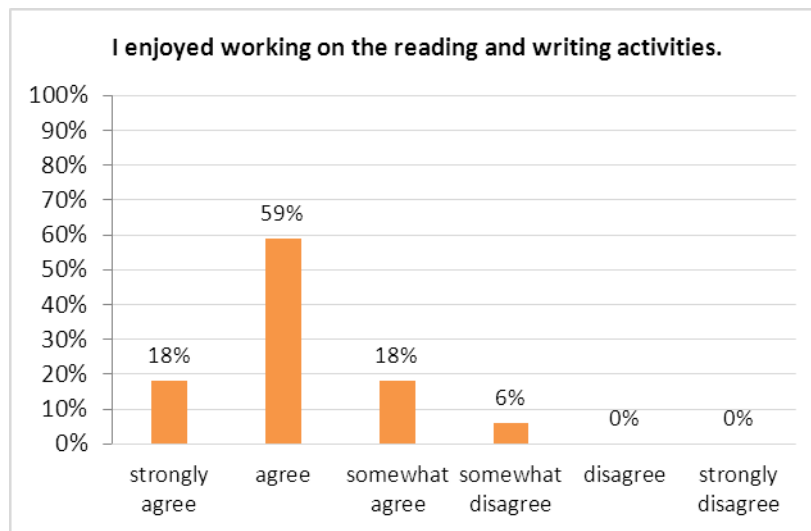


FIG. 23. Participants' Answers to Question 4, Statement 2
Source: Questionnaire

When looking at Table 15 and Figure 23, it is apparent that 10 out of 17 participants (59%) agreed that they enjoyed working on the reading and writing activities presented during the lessons. Table 15 shows that three participants (18%) strongly agreed while another three participants (18%) somewhat agreed with the statement. Only one participant (6%) disagreed to some extent. This means that the reading and

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writing activities provided during the lessons had a positive impact on the participants' motivation.

**Statement 3.** I liked the topics dealt with in the stories.

| I liked the topics dealt with in the stories. | |
|---|---|
| **Option** | **Frequency** |
| strongly agree | 8 |
| Agree | 3 |
| somewhat agree | 4 |
| somewhat disagree | 2 |
| Disagree | 0 |
| strongly disagree | 0 |
| TOTAL | 17 |

Table 16. Participants' Answers to Question 4, Statement 3

Source: Questionnaire
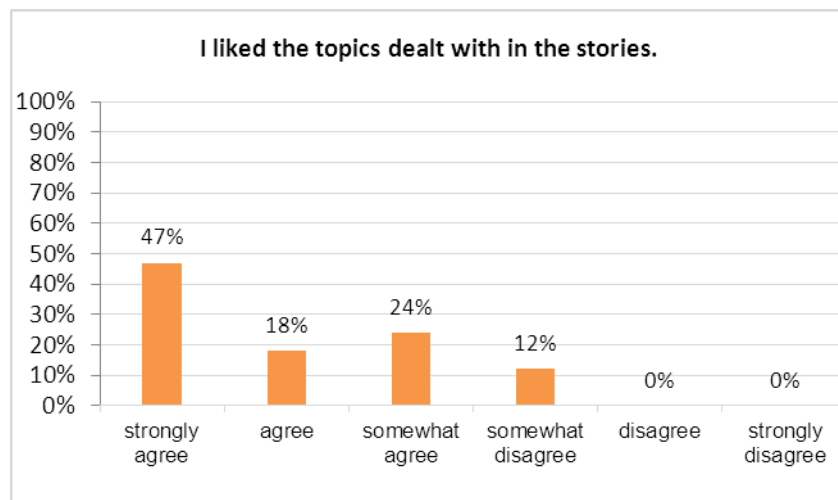


FIG. 24. Participants' Answers to Question 4, Statement 3

Source: Questionnaire

Table 16 shows the answers obtained for statement 3 in which eight participants strongly agreed with the statement that they liked the topics dealt with in the stories;

three of them agreed, four stated they somewhat agreed,  and two said that they somewhat disagreed with the statement. In percentage terms, Figure 24 demonstrates that the majority of the participants (47%) were in favor of the topics dealt with during the lessons. Only 12% of the participants seemed less motivated about the topics presented to them.

**Statement 4.** The use of reading and writing activities helped me to think logically.

| The use of reading and writing activities helped me to think logically. | |
|---|---|
| **Option** | **Frequency** |
| strongly agree | 4 |
| agree | 8 |
| somewhat agree | 2 |
| somewhat disagree | 3 |
| disagree | 0 |
| strongly disagree | 0 |
| **TOTAL** | **17** |

Table 17. Participants' Answers to Question 4, Statement

Source: Questionnaire
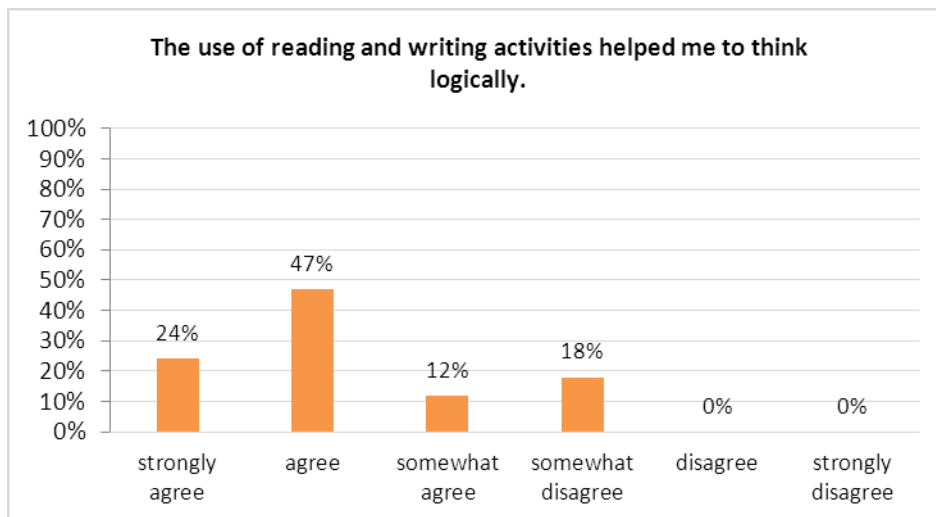


FIG. 25. Participants' Answers to Question 4, Statement 4

Source: Questionnaire

The last statement corresponded to the participants' sense of achievement when thinking logically. Table 17 shows that four participants perceived that the use of reading and writing activities had helped them to think logically. The majority of the participants agreed with the statement while two of them somewhat agreed and three somewhat disagreed. Figure 25 displays the results in percentage terms: it shows that 47% of the participants agreed that the provided activities had positively affected their logical thinking skills. Moreover, 24% of them strongly agreed with the statement. However, 18% of the participants somewhat disagreed that their logical thinking skills had improved as a result of the treatment.

The data regarding these four statements confirm the participants' positive perceptions towards the topics, the activities, and their sense of achievement. The results show that the students think that through the activities accomplished they have been able to improve their thinking abilities. This is in line with Liaw's theory, which states that when the students feel comfortable with the manner of instruction, a positive attitude is created towards the course (62-73).

**Question 5.** Circle your option. I think the use of open-ended questions helped me especially …

| Circle your option. I think the use of open-ended questions helped me especially … | |
|---|---|
| **Option** | **Frequency** |
| a)To propose ideas and arguments | 1 |
| b) To make associations and connections | 3 |
| c) To organize information logically | 2 |
| d) To relate new information to the information learned before | 5 |
| e) To be critical when solving problems | 6 |
| **TOTAL** | **17** |



Table 18. Participants' Answers to Question 5    FIG. 26. Participants' Answers to Question 5

Source: Questionnaire                                      Source: Questionnaire

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As is shown in Table 18 and Figure 26, more of the participants (35%) thought that the use of open-ended questions helped them to be critical when solving problems. Another five participants (29%) believed that they had improved when it came to relating new information to prior knowledge. Three participants (18%) assumed that working on open-ended questions improved their ability to make associations and connections. Another two participants (12%) said that open-ended questions had helped them to organize information logically, while one participant (6%) believed that the ability of proposing ideas and arguments had improved through the use of those types of questions. In general terms, the complex ability of problem solving obtained the highest score followed by the simple ability of relating new information to new topics (knowledge). This means that the participants believed that their simplest and their most complex thinking skills had improved.

**Question 6.** Circle the correct option. You think the activities were…

| Circle the correct option. You think the activities were… | |
| --- | --- |
| **Option** | **Frequency** |
| a) Interesting | 11 |
| b) Funny | 4 |
| c) Boring | 2 |
| **TOTAL** | **17** |



Table 19. Participants' Answers to Question 6
Source: Questionnaire
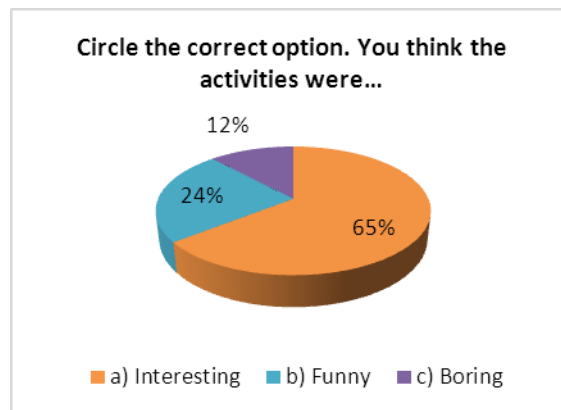
FIG. 27. Participants' Answers to Question 6
Source: Questionnaire

The participants' motivation during the lessons were measured through question 6 which asked about the participants' perception on the activities that they worked with during the lessons. Table 19 demonstrates that 11 participants (65%) found the activities

interesting, four participants (24%) found them funny and only two participants (12%) said the activities were boring.

In conclusion, according to the participants the activities were interesting and this might imply that the participants were motivated during the carrying out of the activities.

**Question 7.** How did you feel during the development of reading and writing activities? Choose one option (x).

| How did you feel during the development of reading and writing activities? Choose one option (x). | |
|---|---|
| **Option** | **Frequency** |
| a. Bored | 0 |
| b. Excited | 1 |
| c. Relaxed | 1 |
| d. Worried | 3 |
| e. Unfocused | 2 |
| f. Comfortable | 10 |
| **TOTAL** | **17** |

Table 20. Participants' Answers to Question 7

Source: Questionnaire
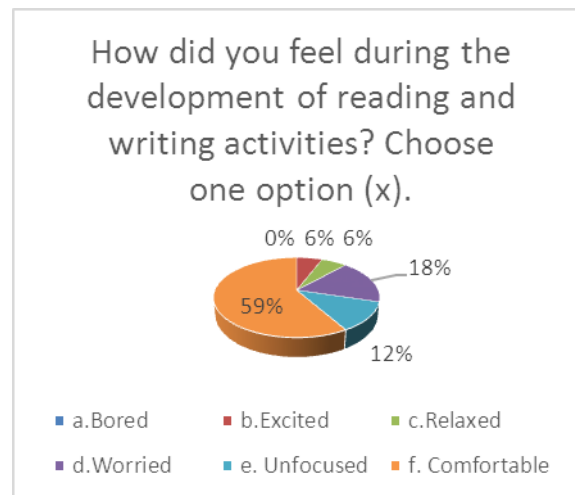


FIG. 28. Participants' Answers to Question 7

Source: Questionnaire

The results in Table 20 and Figure 28 show the participants' answers as to how they felt while they were doing the reading and writing activities. Ten students (59%) out of 17 said they felt comfortable during the lessons. Another three participants (18%) felt worried, while two of them felt unfocused. Only one participant felt excited and another one relaxed. When the participants were asked to explain their choices, the majority of them commented that the activities were fun and the topics were interesting. The students that felt worried explained that they found expressing their ideas in English difficult. The reading and writing activities received positive feedback from the participants since apparently nobody felt bored. In conclusion, the participants appeared comfortable, which reveals a positive effect of task-based activities. This result corresponds to Yücel's experiment (83-86) which showed that the participants'

behavioral attitudes toward the instructional approach (task-based activities) do have an influence on the development of critical thinking skills.

**Question 8.** Choose one option (X) for the thing you find most difficult about completing writing activities.

| Choose one option (X) for the thing you find difficult about completing writing activities. | | |
|---|---|---|
| **Option** | **Frequency** | **%** |
| a. Lack of knowledge about the topic | 5 | 29% |
| b. Developing the arguments | 6 | 35% |
| c. Answering open-ended questions | 2 | 12% |
| d. Understanding and using new vocabulary and expressions | 3 | 18% |
| e. Difficulties in presenting your own ideas | 1 | 6% |
| **TOTAL** | **17** | **100%** |

Table 21. Participants' Answers to Question 8

Source: Questionnaire

In Question 8 the participants were asked to select one option for the aspect they considered difficult when carrying out writing activities. Table 21 shows that six participants (35%) stated that developing arguments was the most difficult aspect when writing. Five participants (29%) said that the lack of knowledge about the topic created difficulties when completing writing activities, while three participants (18%) found that understanding and using the new vocabulary and expressions was challenging. Two participants stated that answering open-ended questions was difficult while one participant had difficulties in presenting her own ideas.

**Question 9.** How valuable were these activities for you? Support your ideas.

The qualitative data gathered through this question showed that the majority of the participants considered these activities very important for their English improvement. They said that with the help of the reading and writing activities, they were able to learn more English as well as they could express their own opinions, feelings, and experiences. Moreover, they said that the activities and the games were funny and interesting.

**Question 10.** Overall, how did you feel about the reading and writing activities? How far did these activities help you to improve your thinking and language skills?

The results obtained through all the previous questions were supported by the participants' own words in question 10. They provided an overall view of their perceptions and experiences during the lessons. The participants concluded that the reading and writing activities had helped them to organize and express their own ideas, solve problems, learn more vocabulary, and improve their reading and writing skills. Some of the participants' comments are presented below. These comments were not edited.

"This activities help me because I understand good English and this activities were very interesting. I feel happy, excited, and comfortable. This activities taught many things and messages and this was very interesting"

" These activities helped me for my writing…"

"It was very interesting and helped me in my language and vocabulary, and my writing."

In sum, the questionnaire results showed the participants' positive attitudes when working on the designed reading and writing activities. It is also evident that they were highly motivated during the lessons and this encouraged their active participation. This is in line with the literature review which suggests that the participants' motivation and confidence can be enhanced by stories and activities that present issues which generate controversy and touch their reality (Pineda 47). Finally, one can conclude that the appreciation for the treatment reflected the perception of having improved their English language and, likewise, critical thinking skills.

Based on the results discussed above, several important conclusions and recommendations will be made in the following final chapter.

**IV Conclusions and Recommendations**

## 1. Conclusions

The purpose of this study was to investigate whether task-based reading and writing activities could contribute to the development of critical thinking skills as well as promote English language improvement. The study was carried out in a lower-intermediate EFL class at "Sagrados Corazones High School" in Cuenca, Ecuador.

The present study arose from the teacher-researcher's teaching experience, namely, the fact that the students in Sagrados Corazones High School in Cuenca, Ecuador, were perceived to be quite weak in identifying different perspectives and giving valid reasons for supporting their arguments. Apart from this reason, the mastery of higher-order thinking skills is important for the so-called SENESCYT (ENES) exam required to enter tertiary level state education. The necessity of an important change in teachers' methodologies to achieve this was borne out by a study carried out at Universidad de Guayaquil in Ecuador (Parra 81-82).

The hypothesis was stated as follows: Task-based reading and writing activities in EFL instruction will develop students' critical thinking skills and improve their English proficiency at the same time. In order to confirm the above hypothesis, the present study followed the experimental-qualitative-statistical method and involved the teaching of one control group and one treatment group. The data obtained were processed and described in frequency and percentage terms. The results of the post-test pointed to the beneficial effects of the treatment and, therefore, the hypothesis was confirmed.

Since there appears to be a gap between critical thinking theories (CT) and instructional practices, the aim was to create and implement task-based reading and writing activities that encourage the use of such skills. The treatment involved the delivery of ten lessons focusing on task-based reading and writing activities that were meant to develop the students' critical thinking skills and as well as improve their English language proficiency.

The first research question of this study was whether learners can develop critical thinking skills and improve their foreign language learning via task-based foreign language instruction in reading and writing. In response to this question, the

implementation of task-based instruction during the treatment demonstrated that critical thinking skills can be taught and should be embedded in the curriculum as stated by Puchta (5).

The study also supports the assumption that there is a relationship between language learning and cognition (thinking). This implies that thinking is necessary when learning a foreign language. It also means that in order to process new information, the students need to develop complex cognitive processes and produce the language that they need for the expression of well-reasoned thoughts. Paul and Elder state that the teaching and learning of the subject matter (English language) and critical thinking go hand-in-hand. This implies that learning is only possible through thinking processes ("Content Is Thinking"). The results of this study are in line with Liaw's findings (58) which prove that language and critical thinking skills are closely related since language learning requires complex cognitive processes. That is why the teaching of critical thinking skills can be done alongside English as a foreign language. The outcomes suggest that CT skills and language improvement is possible via task-based foreign language instruction in reading and writing.

The second research question was whether foreign language instruction in reading and writing could be used to improve critical thinking. The close relationship between language and cognition was demonstrated in the present study by answering the first research question. The positive results of the study suggest that the reading and writing activities (cognitive processes) and the three-phase lesson design provided a suitable and dynamic framework for developing critical thinking skills in the EFL class. The reading and writing activities stimulated the development and use of critical thinking. This study as well as that of Alizamani et al. (135-140) provide evidence in support of the positive effect of reading and writing on critical thinking skills development. The present study confirms that participants developed abilities such as paraphrasing, interpreting, inferring, analyzing, evaluating, and explaining. These abilities are the same as some of the main characteristics summarized by the experts of the Delphi Report (2).

As stated above, the aim of the study was to develop Grade 10 students' CT skills and improve their English through the application of the task-based reading and writing activities. As regards to this aim, the three objectives of the study were accomplished. First, critical thinking strategies were employed by introducing appropriate activities based on the adaptation of the textbook *American More! 2*. The strategies employed resulted in the participants' engagement as anticipated by the results of Yücel's experiment (86) which proved that students learn better if they work on meaningful and engaging tasks. The positive results obtained from the questionnaire indicate that the students were motivated and actively participated during the lessons. Second, the application of task-based reading and writing activities to several units in the regular textbook was fully achieved: the treatment lasted over a period of 30 lessons and the activities were adapted to accommodate three units in the textbook. Finally, the positive results after the treatment demonstrate that the ten designed reading and writing lessons did have a positive impact on students' critical thinking development and English language improvement.

The results showed that the reading and writing activities presented in the three-phase lessons became an integral part of CT development. The findings of the present study support Crawford et al. (182) and Elbow's theory (7) which states that critical thinking is required while writing. This is due to the fact that students need to critically decide which information to use when accomplishing written tasks. Moreover, the participants' thinking skills improvement demonstrate that the three-phase teaching model is a useful framework for teaching critical thinking skills as stated by Meredith and Steele (16) in the literature review. The participants of this study were able to relate the new material to previous knowledge and arrive at meaningful judgments by inferring, analyzing a text, reaching logical conclusions, and elaborating significant ideas. The development of these cognitive processes show that critical thinking is closely related to reading comprehension as stated by Garner (qtd. in Veeravagu 206).

As regards English language improvement, the results showed that task-based reading and writing activities had contributed to grammar improvement considerably. The findings support Slide's theory (27) that there is a close relationship between language and critical thinking since the correct use of grammar requires well-ordered thinking processes. However, in terms of vocabulary the results did not show an improvement in the case of the treatment group: it was actually outperformed by the control group. This might be due to the fact that the control group had more practice on this skill, while the treatment group was focused on the development of CT skills. Moreover, one might assume that grammar is related to thinking, while vocabulary acquisition requires less higher-order thinking and is more related to less complex processes, such as the use of memory and skills in recall.

The conclusions regarding this part of the research study are twofold: from the instructional point of view, one might assume that there ought to be more vocabulary activities, especially during the "anticipation" phase of the lesson. From the point of view of future research, it would be quite interesting to find out if the trend of better grammar use and unchanged vocabulary skills was indeed valid.

Bloom's Taxonomy played an important role in this study. The activities designed in the three-phase lesson were oriented to reach the CT outcomes based on the Educational Objectives of Bloom's Taxonomy. Besides, the development of CT skills was assessed through the six levels in Bloom's Taxonomy. The positive results obtained through this Taxonomy revealed that students' CT skills definitely improved in all six levels (knowledge, comprehension, application, analysis, synthesis, and evaluation). The improvement of the six levels is in line with the theory put forward by Paul et al. and demonstrate that higher-order thinking is possible after lower-order thinking skills are mastered. The results demonstrated that the students had mastered the first two levels in Bloom's taxonomy (knowledge and comprehension) and this contributed to the development of the more complex skills.

The findings also confirm that lower-thinking skills (knowledge, comprehension and application) are the basis on which the reaching of higher-order thinking skills (analysis, synthesis, and evaluation) are built. This is in line with Stratton's hypothesis: he states that higher-order thinking skills can only be achieved after the lower-order thinking skills have been put into use (39).

Furthermore, the findings of this study as well as those of Surjosuseno and Watts (227-244) demonstrated that Bloom's Taxonomy was a useful resource in designing tests to measure the degree of the students' critical thinking skills.

The success of the activities developed in the three-phase lessons was confirmed through the questionnaire results. The majority of the participants agreed strongly that their ability to share ideas, think logically, relate new information to prior knowledge, make associations, and organize information had improved. Moreover, it can be deduced from participants' answers that they were highly motivated by the stories they worked on. The learning atmosphere was full of collaboration among the participants who were constantly seeking help with the vocabulary involved and the sentence structure to be employed. This proves that collaborative strategies such as the ones used in the three-phase lessons can enhance learning as borne out by Bonk and Smith's article (qtd. in Lai 35).

In sum, the positive results regarding English language proficiency and critical thinking skills confirm the hypothesis of the present study. This implies that task-based reading and writing activities in EFL instruction do develop students' critical thinking skills and improve their English proficiency at the same time.

## 2. Recommendations

Based on the positive results obtained in the questionnaire, it would be of outmost importance for future research to consider the students' interests, age and preferences, since these are the main factors that affect the students' motivation when carrying out reading and writing activities. Critical thinking can be taught at any level, but researcher would need to adjust the activities since not all thinking strategies could be appropriate for all kinds of classes. These activities should be designed in accordance with the course objective, the students' proficiency level, age and the teaching material itself.

As regards vocabulary one might suggest to consider more activities to improve students' vocabulary in the anticipation phase. Vocabulary plays an important role in writing. Once the students become aware of the meaning of a word and its use, they start using vocabulary more accurately.

It is evident that critical thinking processes cannot be developed in a short period of time. Undeniably, the present study brought about positive results even though the treatment was only applied over four months. However, one might suggest that future experiments should last longer than four months because the mastery of critical thinking skills requires time and practice.

Besides, it would be advisable to use larger samples in order to be able to generalize the actual findings and overall conclusions of the present study.

It is hoped that the present dissertation perhaps provides a useful starting point for future Ecuadorian research studies. It is also assumed that the activities designed with the three-phase lesson in mind will provide a useful framework for teaching critical thinking skills in EFL classes in Ecuador. Finally, the effective results of this study could serve as a model for instructional approaches to promote critical thinking and language improvement and act as a pointer for future research.

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**Annexes**

**Annex 1**
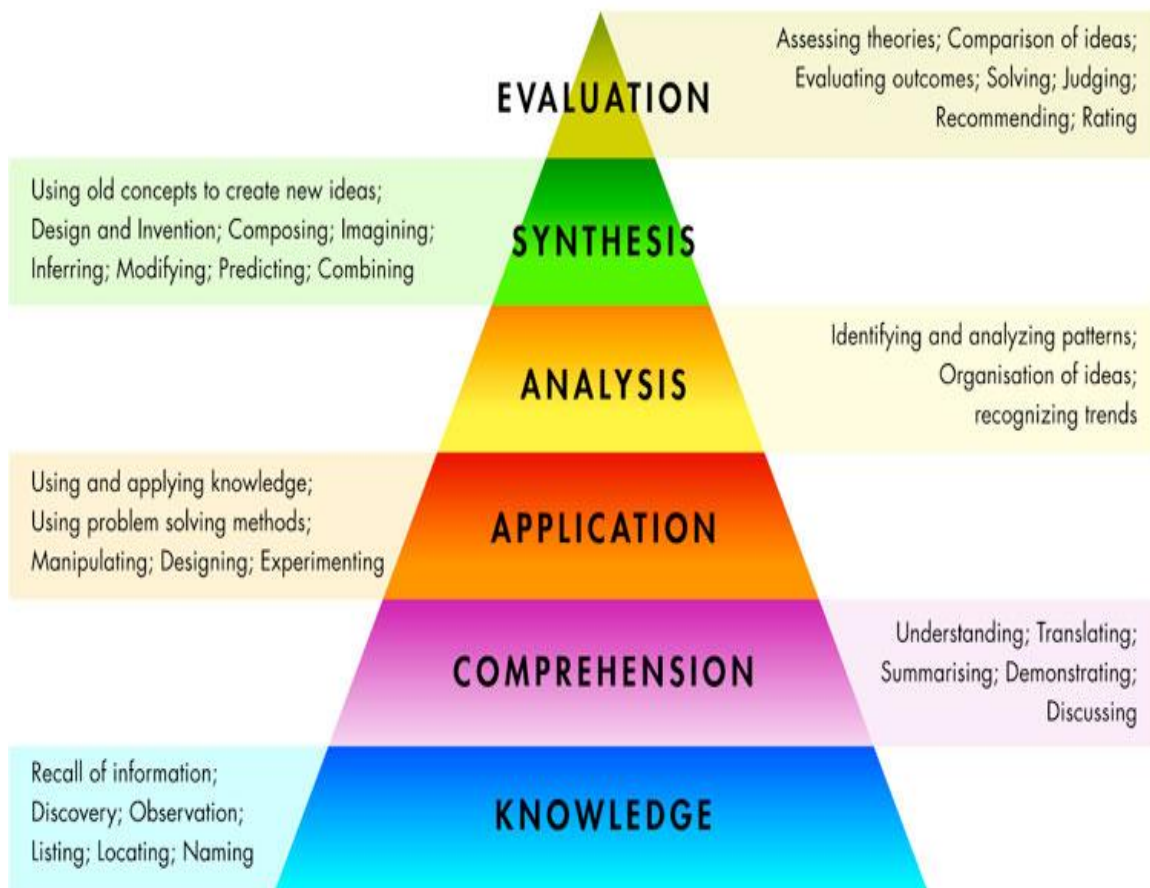


Source: Taxonomy of Educational Objectives

**Annex 2**

| Generic Definitions | Applying Bloom's  Taxonomy in EFL classes |
|---|---|
| **Knowledge**<br>Learners are expected to store in their mind information for later recall. | The knowledge question is often used during or after reading a passage to encourage learners in an EFL class to recall the content of the passage. |
| **Comprehension**<br>In EFL classes, there are three types of comprehension behavior: (a) translation (learners translate from the second language to the first language); (b) interpretation (reorder ideas into a new configuration); and (c) extrapolation (making predictions based on what is given in a passage as opposed to abstraction which is derived from other experiences). | Critical reading questions which require students to translate a passage are not relevant in EFL classes since both teachers and learners use the target language. However, EFL learners are required to interpret and extrapolate meaning during and after reading. |
| **Application**<br>Applying a language rule, theory, method or process to a problem or situation and referring to the learners' ability to use the learning materials in new and concrete situations. | A critical reading teacher in EFL classes will ask application questions about the topic before, during and after reading a passage. Questioning before a reading encourages students to anticipate what is possible; questioning during the reading directs learners to focus on the function of the topic; and questioning after the reading directs learners to apply the concepts in a new context. |
| **Analysis**<br>Analysis refers to the ability to break down a passage into its component parts so that its organizational structure may be understood. | In critical reading for an EFL class, analysis questions can be used during and after reading activities to encourage learners to understand the content and the structure of the given passage. |
| **Synthesis**<br>Synthesis encourages students to create something new and to rely on original and creative thinking. Students may make predictions and solve problems and make a variety of creative answers | Synthesis activities in an EFL class can include: (a) solving problems which are described in the passage; or (b) communicating with the author in the target language. |
| **Evaluation**<br>Evaluation is concerned with the ability to judge the value of material, the solution to a problem or the facts about particular cultures. | Critical reading in an EFL class may use evaluation as a means of focusing on learners' personal judgements derived from their existing schemata. |

**Taxonomy for formulating questions in EFL classes**

Source: Using Bloom's Taxonomy to teach critical reading in English as a foreign language classes

**Annex 3**
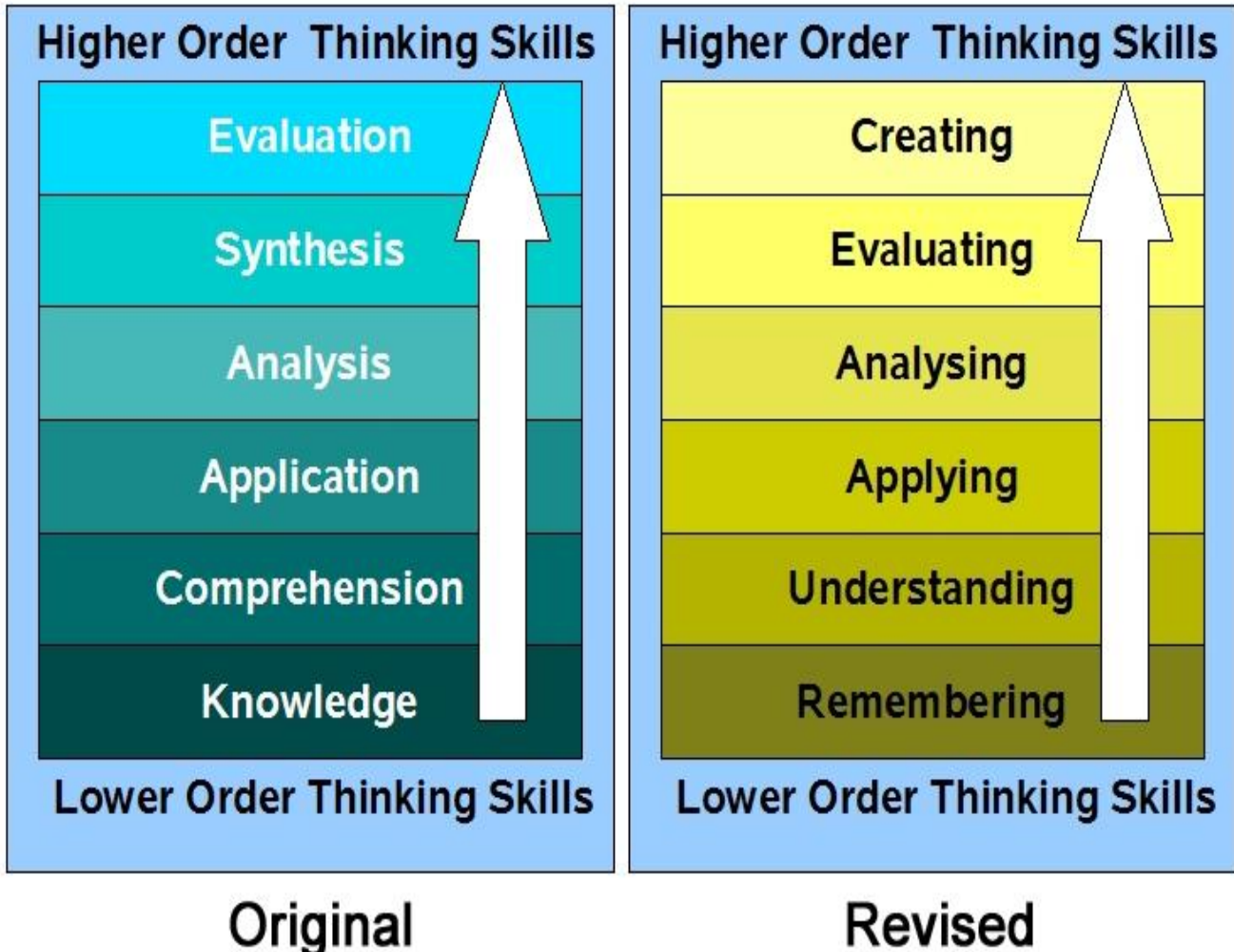


**Original Bloom's Taxonomy vs. Revised Version**

Source: Adapted from Bloom's Digital Taxonomy by Andrew Churches

**Annex 4**
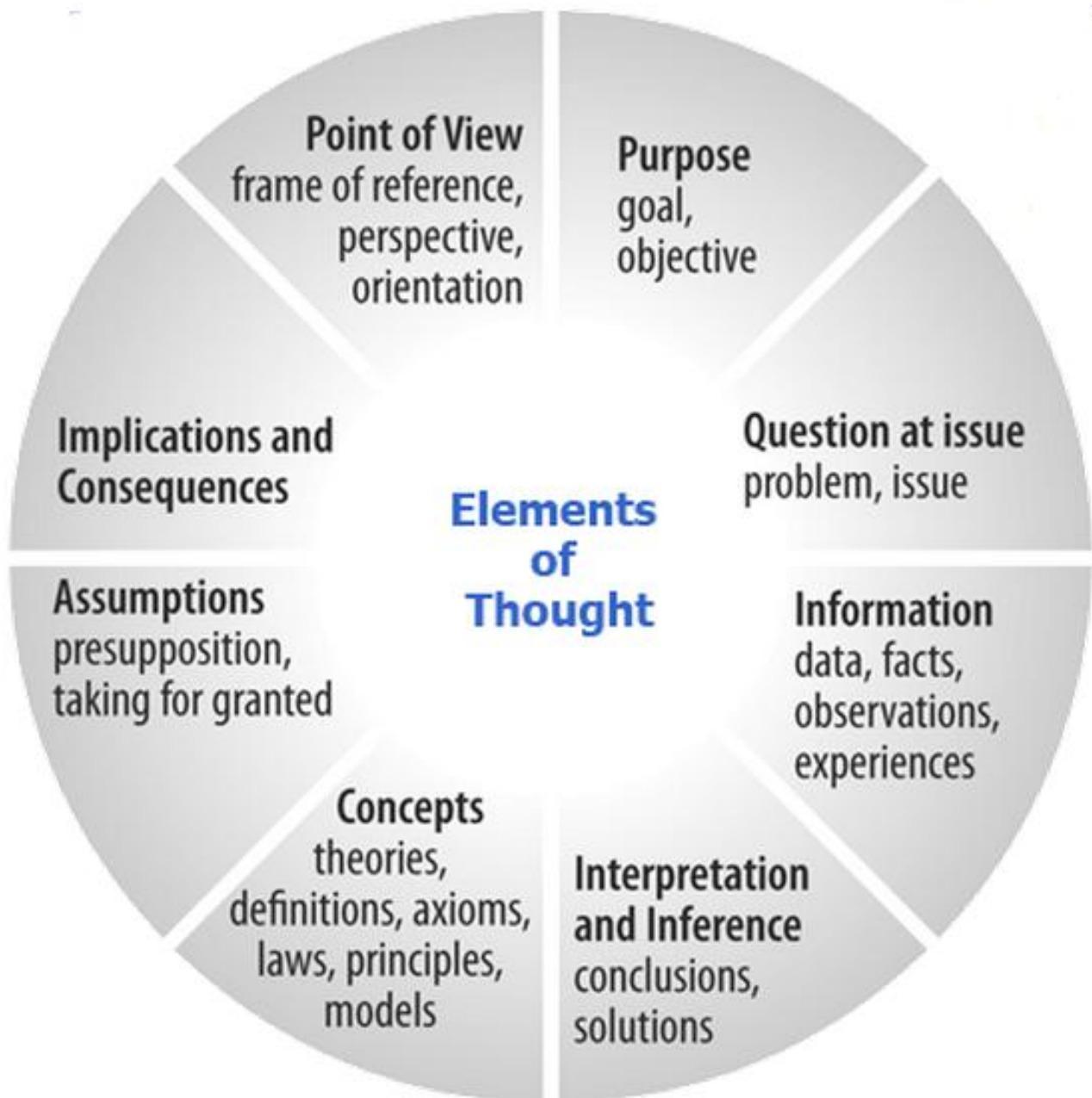


**Elements of Thought**

Source: Miniature Guide to Critical Thinking Concepts and Tools

**Annex 5**

**SOLICITUD DE CONSENTIMIENTO AL PADRE Y/O MADRE DE FAMILIA, O REPRESENTATE LEGAL.**

Considerando que la meta central de la educación actual es formar personas preparadas para enfrentar críticamente situaciones e ideas y de que el desarrollo del lenguaje y el pensamiento están cercanamente relacionados, estamos conscientes de que el pensamiento crítico de nuestros estudiantes puede ser desarrollado al mismo tiempo en el que se aprende el idioma Inglés. Por esta razón, se ha considerado la implementación de actividades significativas de lectura y escritura basadas en técnicas y estrategias de pensamiento crítico para contribuir al desarrollo del mismo, así como se contribuye al mejoramiento del idioma Inglés. Por tales motivos, **Lcda**. **Tania Alexandra Rodas Auquilla,** docente de la asignatura de Inglés en la Unidad Educativa "Sagrados Corazones", como parte de su tesis de Maestría en Lengua Inglesa y Lingüística Aplicada, titulada: **"Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador"**, contando con la previa autorización de la Institución, se propone investigar el beneficio y la efectividad de esta estrategia metodológica la misma que será aplicada a las estudiante durante el curso regular con el fin de desarrollar el pensamiento crítico de nuestros estudiantes a través del idioma Inglés.

Para el efecto solicito su consentimiento para proceder a la aplicación de la mencionada estrategia metodológica en las clases de Inglés de su representada, hecho que beneficiará y facilitará el aprendizaje del idioma redundando en el eficaz aprendizaje de las estudiantes, quienes asistirán normalmente a sus clases de inglés y continuarán usando el mismo material ya que las actividades de lectura y escritura están basadas en el mismo, esto no afectará de manera alguna el desarrollo normal de las clases de inglés ni sus calificaciones, pues lo resultados serán únicamente con fines relacionados a la investigación

El estudio se llevará a cabo durante 64 periodos de clase. La información obtenida será totalmente confidencial, es decir serás registrada de manera anónima y los resultados se presentarán en términos generales.

Yo, _____representante de la estudiante _____
Expreso mi consentimiento para que mi representado/a participe en este proyecto.
…………………………………………..
Firma:
C.I.

<div align="center">Cuenca, 15 de enero de 2013</div>

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## Annex 5: Story 1

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Story 1**

**Name**: _____

**Date**: _____

### ANTICIPATION

1. **Warm up activity (10 min)**



A-Maze-Ing

In just 10 minutes, your best friend will be blindfolded and thrust into the dreaded Swamp Maze. Only you can help your friend get through the maze safely. Quickly! Write the instructions your friend will need to survive.

_____
_____
_____
_____
_____
_____.
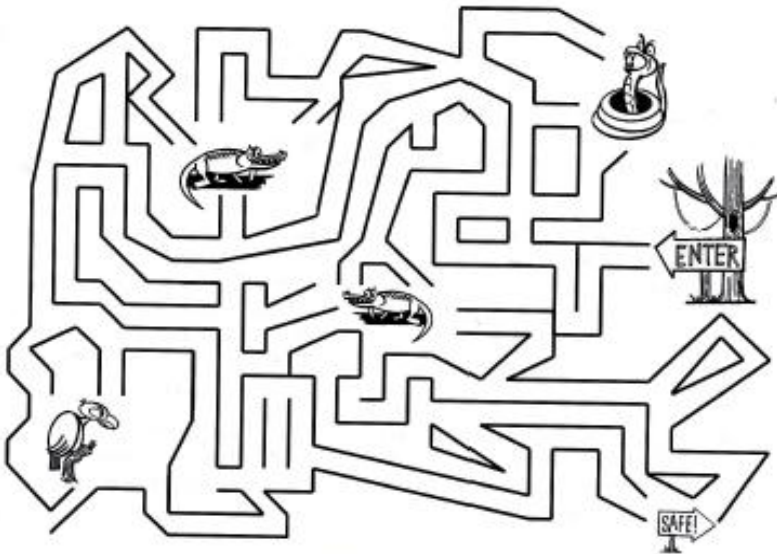
**2. Before Reading Activity. Look at the picture and discuss. (10 min)**

What do you notice?

Do you think these two people feel different?

Do you think they feel comfortable or uncomfortable? Why?

What do you think about the people's skin color?



Image source:

http://4.bp.blogspot.com/_fuAef_UwIWI/TSmzfxlN6BI/AAAAAAAABAM/fbamYJa4Qec/s1600/images+%25283%2529.jpg

3.                    **Individual Reading. Read the story in the next page and underline the unknown vocabulary. (5 min)**

4.  **Read, identify, and write 3 words that describe the story. (10 min)**

THE BLIND

SIDE

The Blind Side is a story of personal achievement. This true story is about a homeless African- American teenager, Michael Oher, who became a famous football player. Michael known as "Big Mike" did not know his father and his mother was a drug addict. Big Mike was kind, quiet and shy. His father's friend enrolled him into a White Christian School. Big Mike's grades were low because he had a learning disability; however, he seemed to have aptitudes to be a football player. He felt that he did not belong there. He met a wealthy family, The Thouhys who supported him. They adopted Big Mike and helped him to fulfill his potential. He worked hard to succeed as a football player and student - all of this with the help of his coach and family. At the end, Michael Oher became a famous offensive tackle. He plays for the Baltimore Ravens.

**5. Semantic Map: Complete the map with 4 components you consider necessary for personal achievement.  Establish the relationship that exists among the concepts and write about it. (10 min)**

Personal Achievement

_____
_____
_____
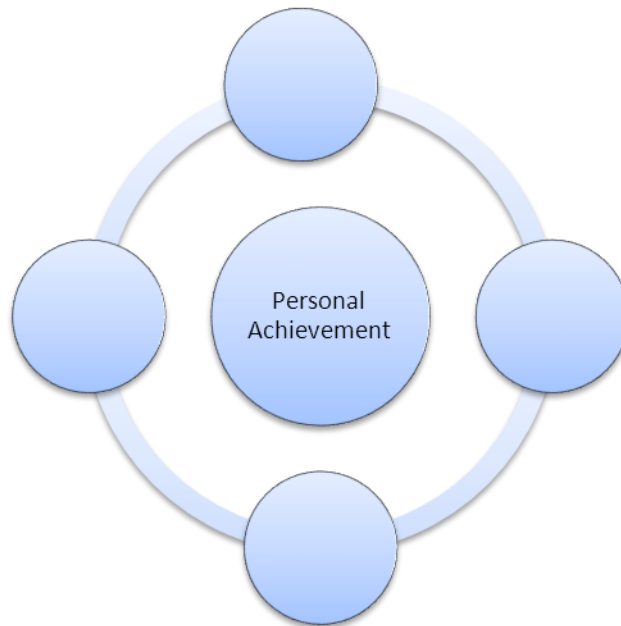
**BUILDING KNOWLEDGE**

**6. Game: Think 'n' Move. (10 min)**

a) Stand up and line up.

b) One end of the classroom represents "positive" and the opposite end "negative"

c) Listen to the teacher to read the text sentence by sentence.

d) Move one step between the two extremes that represent what you think about each sentence.

e) Observe how close you are to each extreme and explain why you are there.

**7. Jigsaw (10 min)**

a) Make groups of five students.

b) Choose a secretary to write your answers

c) Answer the following questions based on the text and movie.

    -Why do you think this story is called "The Blind Side"?

    -What messages do you find in the story?

    -Would you be willing to take in a strange person in your house as the

    Tuohys did with Michael Oher?

    -Do you think there are racism issues in this story?

d) The secretaries from each group move around and share the answers with the other groups.

e) Listen to the secretaries and take notes.

f) General discussion to reach a final conclusion.

**8. Complete the chart about the positive, negative and interesting aspects of being a good person and helping others. (10 min)**

| POSITIVE | NEGATIVE | INTERESTING |
|---|---|---|
|  |  |  |

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**9. Complete the magical potion answer the question: What does it take to be considered a good person? (10 min)**
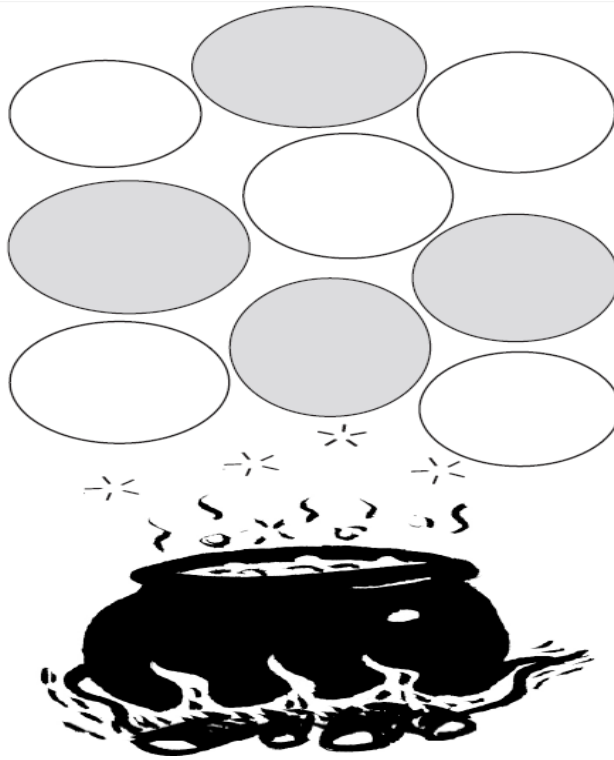
**CONSOLIDATION**

**10. Imagine: What would have happened to Michael Oher without the Tuohys' support? (10min)**

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--------------------------------------------------------------------------------------------------- .

**11. Answer. In which way do you identify with Michael Oher?  Why? (10 min)**

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## 12. Write a short paragraph (25 min)

Choose one option to write about.

1. The Tuohys supported Michael Oher to gain fame because they knew he had the aptitude to become an excellent football player.

2. The Tuohys supported Michael because they were good people.

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**Annex 6: Story 2**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Story 2**

**Name**: _____

**Date**: _____

## ANTICIPATION

### 1. Warm up activity: Food Chain Farmer. (10 min)

A farmer was traveling home with a fox, a chicken, and a sack of corn. He had to be very careful. The fox was always trying to eat the chicken, and the chicken couldn't wait to get at that sack of corn.

On the way, the farmer came to a river. He had to use a rowboat to cross the river. But the boat was only big enough to fit himself and one of the items he was carrying at a time. He was going to have to do a lot of rowing!

How could the farmer safely get all his possessions across the river?



_____
_____
_____
_____
_____
_____
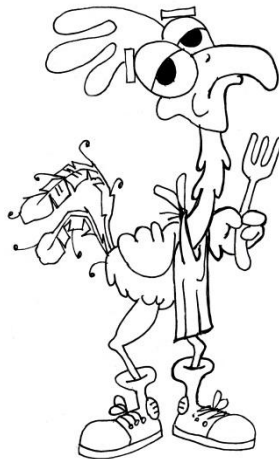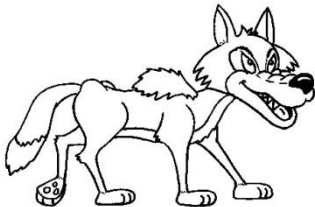
## 2. Inferring. (10 min)

**Look at the picture and say:**

- Are they friends or a couple?
- Is the time appropriate for watching a horror movie?
- Are they enjoying the movie?
- How do they feel while watching the movie?



## 3. Anticipation through terms. Write a short story using the terms below. (20 min)

Best Friend

Horror movie

Terrible things happen

"The Door"

Abigail

Joseph

_____
_____
_____
_____
_____
_____

4. **Read your story aloud. (5 min)**

**BUILDING KNOWLEDGE**

5. **Read the story and find the two mistakes in the picture. Ask for unknown vocabulary. (15 min)**



**DVD HORROR!**

**Last Friday evening at 8:00 p.m., the phone rang. It was my best friend, Joseph. He was very excited. "Abigail, come over to my house," he said.**

When I arrived at Joseph's place, he took me to the living room. On the red sofa there was a brown bag. "Open it!" he said.

I opened the bag and took out a DVD in its case. "Read it," he said.

I read it: *The Door.*

"No way," I said. "I don't believe it!"

"Yes," he said. "It's *The Door*!"

*The Door* is a very famous movie. It is a horror movie. People watch it and terrible things happen.

"A boy from our school watched it," Joseph said. "He had a terrible accident the next day."

"A girl on my street watched it," I said. "Her dog died the next day."

"Let's watch it!" I said.

"I'm not sure," Joseph said. "I'm scared!"

"Don't be silly," I said.

"OK," he said. "Let's watch it!"

Joseph put the DVD into the DVD player. We sat down on the sofa. We were scared. We were very scared. And this is what we saw ...

Mistake 1=_____

Mistake 2=_____

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**6.      Match the sentence halves. Write the correct letter. (5 min)**

1 Abigail got a phone call from her ☐       a over to his house.

2 He invited her to come ☐              b *The Door.*

3 He showed her ☐                      c horror film.

4 It was a movie called ☐              d friend Joseph.

5 *The Door* was a ☐                    e to watch it.

6 The two friends started ☐            f his new DVD.

**7.  After reading the text, complete the chart and justify your answers. (20 min)**

| What I see… | What I cannot see… | What I infer… |
| --- | --- | --- |
|  |  |  |

**CONSOLIDATION**

**8.        Questioning. (10 min)**

a)        Joseph presented one example and the other example was given by Abigail of bad things happening to some kids who watched the movie. Do you think that evidence is enough to believe bad things happen?

_____
_____

_____

b)        Let's suppose you have watched a horror movie and the next day something bad happens to you. How would you explain that?

_____
_____

_____

**9.        Group work. Get in groups of four, look at the pictures and create a story, then share your story with the other groups. (30 min)**

STORY TITLE:_____

_____

_____

_____

_____

_____

_____

_____

_____

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**Annex 7: Story 3**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Story 3**

**Name**: _____

**Date**: _____

**ANTICIPATION**

1. **Warm up activity:  Proverbial Wisdom. (10 min)**

Can you break the code and read the message below? Sure you can. Here's how:

Look for patterns and for small, common words. Think about where vowels usually fall in English words. Using a pencil, lightly write your guesses above the coded letters in the message. Keep track of your solved letters in the alphabet. Once you have cracked the code, write your message below.


**Z  DRHV  NZM  NZB  XSZMTV  SRH  NRMW; Z  ULLO, MVEVI.**


**A B C D E F G H I J K L M N O P Q R S T U V W X Y Z**


The message is:

_____

_____

_____

_____


2. **Memory Pictures Game. (5 min)**

a) Three volunteer students stand at the front and allow the class one minute to look closely at them.

b) The volunteer students leave the room and each alters one aspect of their appearance.

c) They return and the others should try to identify the differences.

**3. Brainstorming. Look at the term in the middle of the diagram and write 5 ideas about the topic. (10 min)**

Rattlesnakes
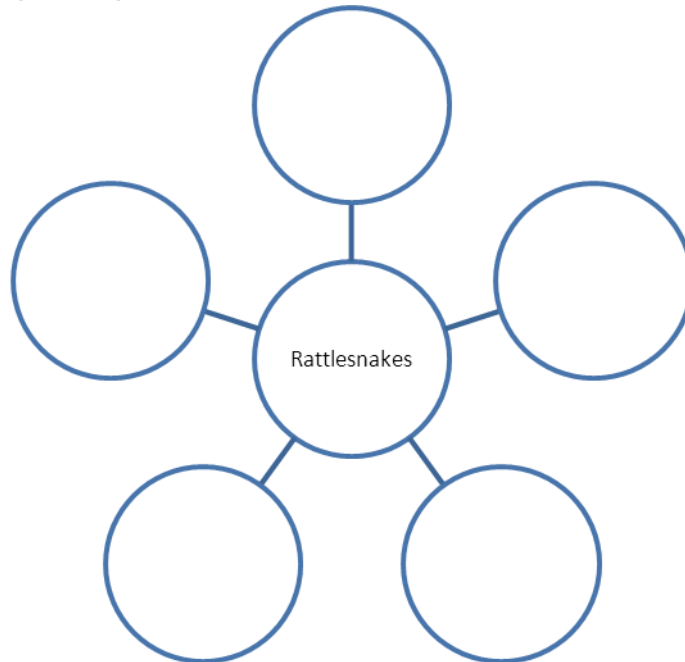
**4. Read the text aloud. Each student reads one paragraph. (10 min)**

# Storytelling

It was Friday afternoon. Everyone was tired. "OK," Miss Cross said. "Close your books. Who wants to tell an interesting story?"

Five or six hands went up in the air.

"Let's start with Sara," said Miss Cross.

"My family—that's me, my mom, my dad and my twelve-year-old brother, Michael—went to Arizona in July," she said. "We went to the Grand Canyon. It was really beautiful and we had a great time exploring the area."

"Boring!" said Andrew Wilson.

"Shhh!" said Miss Cross. Sara went on.

"One day, my brother and I were climbing some rocks."

"So what?" said Andrew Wilson.

"Well, I saved my brother's life."

"I don't believe you," shouted Kevin Biggins.

"Quiet! Let Sara tell her story," Miss Cross said.

"My brother followed me up some rocks near our campground. I was above him when I heard a sound like a rattle. I immediately thought it was a rattlesnake."

"A what?" said Andrew Wilson.

"A rattlesnake. I know a lot about rattlesnakes. I could see the snake, though my brother could not. It was a western diamondback rattlesnake. It could kill him with one bite. I told my brother to calmly move back down off the rocks," said Sara.

"We don't believe you," said some of the students.

"There are no rattlesnakes in the Grand Canyon," said Andrew Wilson.

"There's one way to find out," said Miss Cross. "Let's check on the Internet!"

This is what the students found on the Internet:

**BUILDING KNOWLEDGE**

5. **Checking for vocabulary. (5 min)**
6. **Choose 4 terms you consider important for the topic " Rattlesnakes" (5 min)**

7. **Answer: Do you think Sara is telling the truth? Explain your answer. (5 min)**

_____
_____
_____
_____
_____

8. **Complete the two first columns in the chart. (15 min)**

| Before the students find the Information on the internet about rattlesnakes | What do you think is going to happen? | Why do you think that? | What really happened? |
|---|---|---|---|
| | | | |

**9.     Reading Group work. (10 min)**
**Set aside your material for a while and take your notebook. Only one student keeps the material to read the text.**

Student A reads one paragraph.

Student B listens and takes notes (important ideas)

Then student B reports the ideas to student C.

Student C listens and takes notes to make the summary.

**This is what the students found on the internet:**

Rattlesnakes live in North and South America. There are 36 species of rattlesnakes. In Arizona, there are 13 species. Rattlesnakes make venom to kill their prey. About one percent of rattlesnake bites in Arizona result in human deaths.

The western diamondback rattlesnake can grow to more than 150 centimeters long. It is the largest rattlesnake in the western part of the United States. It bites, and kills, more humans than any other rattlesnake species. Some western diamondback rattlesnakes live in the Grand Canyon.

**10. Individual work. After working in your notebooks, read the text. (5min)**

**11. Exploratory questions. (5 min)**

Is it important to know about the kinds of snakes?

Why do you think rattlesnakes are called that?

What would you do if you found a snake while walking?

12. **Homework.** Search on the internet and find out more about rattlesnakes' positive and negative characteristics. Bring your notes with you for the next lesson.

### CONSOLIDATION

**The clock (25 min)**

1. **-** Group work.
2. -Choose a secretary in the group.
3. - Take turns to talk about your notes on rattlesnakes.
4. - Choose 3 positive and 3 negative aspects of rattlesnakes. The secretary takes notes.
5. - The secretary goes to other groups to share the information.
6. Each group completes the chart.

| Positive aspects | Negative aspects |
|---|---|
| | |

7. **Writing. Should rattlesnakes be exterminated? Explain your answer. (15 min)**

_____

_____

_____

_____

_____

_____

_____

_____

**Annex 8: Story 4**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Story 4**

**Name**: _____

**Date**: _____

## ANTICIPATION

### Tied Up in Knots!

1. Get together in groups of six. Then five of you stand in a circle, holding your hands. The sixth student should be the "doctor" and should cover his/her eyes.
2. The group holding hands should now proceed to tie themselves in knots, by twisting and turning and interweaving under arms.
3. The only rule is that you must not let go of each other's hands! You can use your legs to loop over arms as well, if you feel this is safe.
4. When you are ready, call the doctor. "Doctor, doctor, I'm tied up in knots"
5. The doctor should then try to untie you by working out the right order in which to undo the tangle. **(15 min)**

**2. Prediction. Look at the terms and discuss what the reading is about. (5 min)**

Space and Rocket Center

The Gateway Arch

Empire Building

Pasadena Rose Bowl
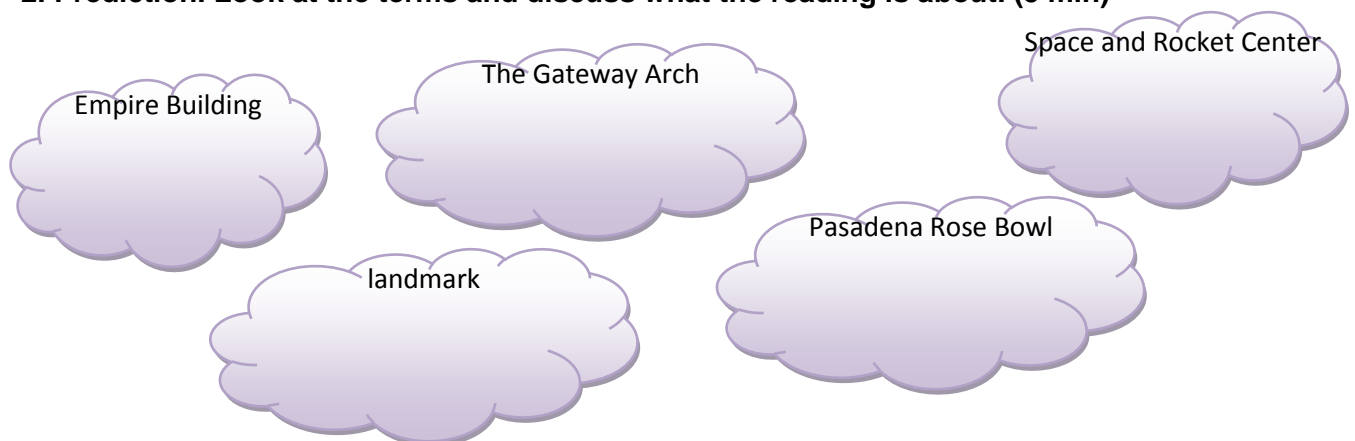
landmark

**3. Use the terms to write a definition of the word "landmark". (5 min)**

well-known

prominent

landscape

city

features (noun)

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**BUILDING KNOWLEDGE**

**4. Read the texts below and match them to the correct picture. Then write the name of the state. (15 min)**

# The United States of America

**Do you know?**

There are 50 states in the United States and 50 stars on the flag.

1 Hi. How's it going? My name's Joe. I live in Missouri. The Gateway Arch is in my state. It's 200 meters high. You can get an elevator to the top. It's amazing.

2 Hi, I'm Sarah and I'm from New York City. My favorite landmark is 443.5 meters high. It has 73 elevators and 6,500 windows. There is a fantastic view of the city from the top floor. Can you guess what it is? It's the Empire State Building, of course.

3 Hi, my name's Tanya, and I want to be an astronaut. I'm from Alabama, so I often visit the Space and Rocket Center here. My favorite landmark is the Apollo 11 Launch Vehicle. In 1969, Neil Armstrong, Michael Collins, and Edwin "Buzz" Aldrin traveled to the moon in Apollo 11.

4 Hi, my name's Mark. I'm a big football fan from California. My favorite landmark is the Pasadena Rose Bowl. Every year, they hold college football games here.
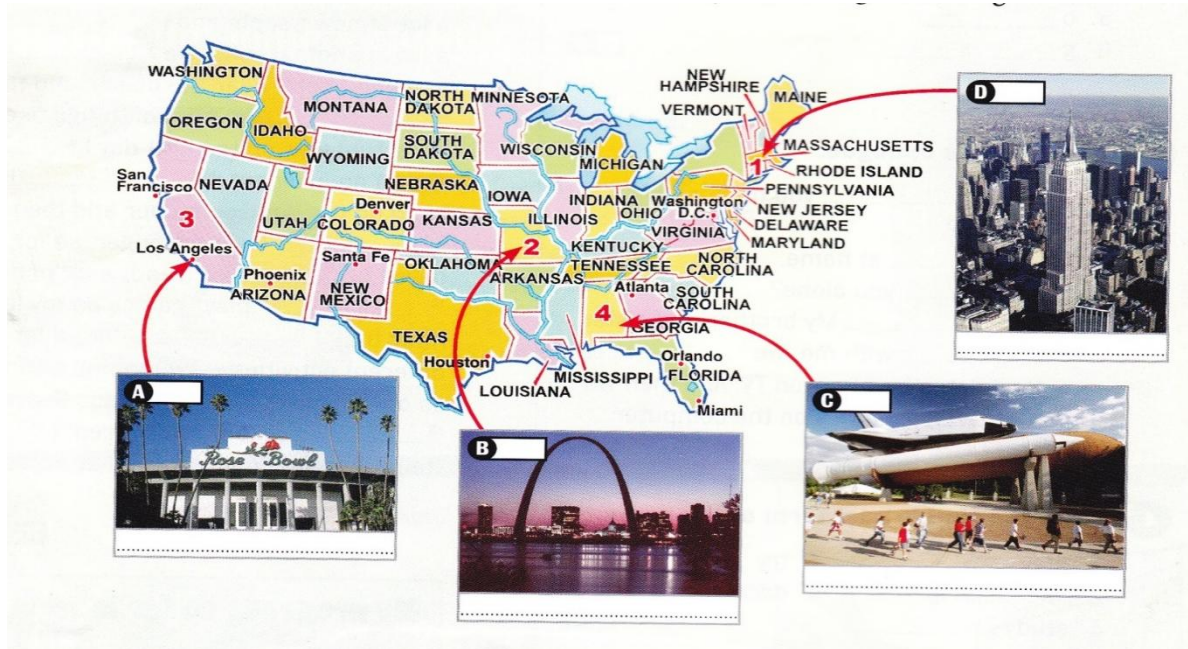
**5. Work out the sights (landmarks) of your city. (10 min)**
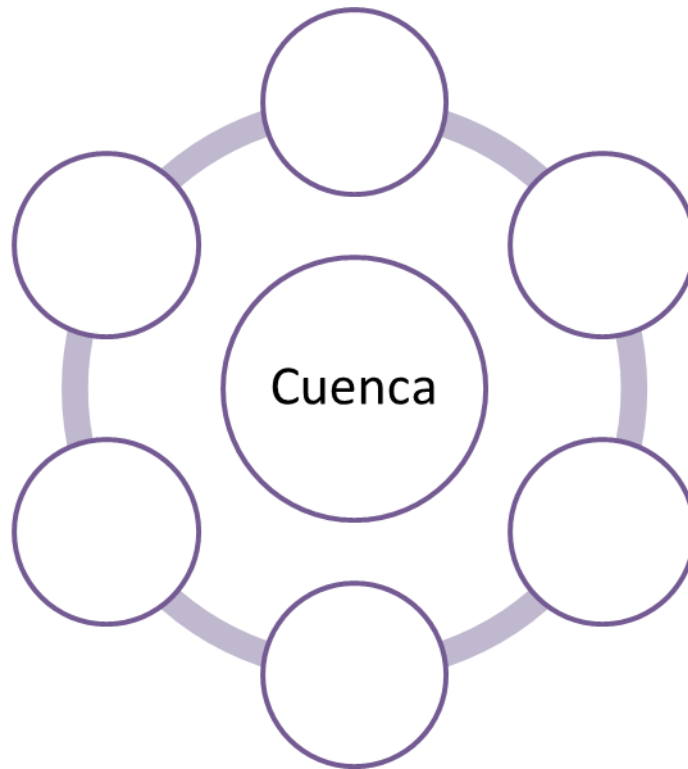
**6.** **Compare and contrast the cities in the USA and the cities in Ecuador. First, create categories of comparison. The first 4 boxes are for similarities, the next 4 for differences and the gray boxes for category names. (15 min)**

## Categories of Comparison

and

1.

2.

3.

4.

5.

6.

7.

8.

Overall, I think that _____

_____

**CONSOLIDATION**

7.  **Draw a map of our city "Cuenca". (20 min)**
    a)  **Include:**

A historic landmark

A modern landmark

A famous bridge or tower

Famous sports stadiums

b)  **Write a short paragraph about one of the landmarks you included in your map.**

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8.  **Homework. Bring pictures of famous landmarks and material necessary to make a collage about "The Perfect City"**

9.  **Group work. (45 min)**
    1.  Get together in groups of five.
    2.  Share ideas about your Perfect City and the features that this should have and explain why.
    3.  Use your material to draw a map of your "Perfect City"
    4.  Write a description of your "Perfect City"
    5.  Present your collage to the class.
    6.  The class votes for the best place where to live.

**Annex 9: Story 5**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Story 5**

**Name**: _____

**Date**: _____

## ANTICIPATION (10 min)

| 1. THE DRAGGIN' DRAGONS |
| --- |

Once upon a fairy tale, four dragons named Flame, Smoke, Fangs, and Grumpy were laying waste to the countryside. The princess, who had been granted 10 wishes at birth, decided to use 4 of them to rid the land of the destructive dragons. She turned one into a mouse, one into a flea, one into a kitten, and the last into a handsome gerbil.

Flame was not the mouse and not the flea.

Smoke was not the kitten or the mouse.

If Flame was not the kitten, then Fangs was not the mouse.

Grumpy was neither the flea nor the mouse.

Fangs was not the flea or the kitten.

**What animal was each dragon changed into?**

Flame was a -_____

Fangs was a -_____

Smoke was a -_____

Grumpy was a -_____

**(Hint: Draw a grid to keep track of what you know)**

**2. Consider the following questions and complete the clouds with the possible answers. (15 min)**

## What if?

What if you had an impossible love?

What if vampires and werewolves really existed?

What if you had the opportunity to become a vampire?

## BUILDING KNOWLEDGE

**3. Answer: What do you think the reading is about? (Oral activity) (5 min)**

**4. Look at the picture and tell to the class: What does it mean to you? (5 min)**



**5. Read the text below and underline the unknown works. After identifying the unknown words, check their meanings. (10 min)**

### TWILIGHT

Isabella "Bella" Swan moved to live with her father, Charlie, in a small, cold and rainy town called Forks. This was after her mother remarried a baseball player. Aged seventeen, Bella was smart and pretty but quite clumsy. At Forks, she met some friends at her new school. Bella's father introduced her to Jacob Black, a werewolf, who immediately fell in love with her, but they were no more than good friends. Bella met Edward Cullen on her first day of school. She was intrigued since Edward seemed to be disgusted by her. A few days later, inexplicably, Edward saved Bella from being struck by a van. Bella and Edward fell in love and then she discovered that Edward was a vampire and he had the power to read minds. Even though, Edward only consumed animal blood, he was worried that his romantic desire for Bella could not be enough to overcome his vampiric desire to kill her. As their relationship matured, Edward gained more and more self-control. Bella met Edward's family and they protected Bella from being hunted down by James, a tracker vampire. Bella loved Edward and she wanted to be with him forever so she expressed her desire to become a vampire, too, which Edward refused.

**6. Exploratory questions. (10 min)**

a) Have you ever had an impossible love? How did it feel?

b) Do you think age is important in a love relationship?

c) Why do you think Bella is intrigued by Edward's attitudes behavior?

d) Why do you think Edward refuses to give Bella vampire powers?

**7. *Love demands some sacrifices such as changing into someone else and putting aside all you know and you are to follow the beloved person*. Complete the chart with the positive and negative aspects of love sacrifices. (15 min)**

| POSITIVE ASPECTS | NEGATIVE ASPECTS |
|---|---|
|  |  |

Overall, I think that_____

_____

_____

_____

_____

**8. Can you think of any arguments to support (justify) this statement? Put them in the thought bubbles. (15 min)**

Edward and Bella's love is impossible.

**CONSOLIDATION**

**9. POINTS OF VIEW: Put yourself in these people's shoes and consider their perspectives. You should describe what these people think /feel. (10 min)**

| Points of view | Bella | Edward |
|---|---|---|
| **1. Bella loves Edward and she wants to become a vampire.** | | |
| | **Jacob** | **Charlie** |
| **2. The friendship between Bella and Jacob.** | | |

**10. Bella is in love and she wants to become a vampire.  Write a letter advising her about what she should do. Support your point of view by giving relevant information and examples. (30 min)**

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**Annex 10: Story 6**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Story 6**

**Name**: _____

**Date**: _____

**ANTICIPATION**

**PEEK POCKET**

**1. Contest (10 min):** There is an egg in your blouse pocket. You want to remove it. Unfortunately, your hands are tied together in front of you. Your classmates (in two groups) will find ways to help you. Instruction to group: list 10 ways how your classmate could get the egg out of her pocket –without breaking it. Be creative!

**1.** _____
**2.** _____
**3.** _____
**4.** _____
**5.** _____
**6.** _____
**7.** _____
**8.** _____
**9.** _____
**10.** _____

**2. Write aonesentence using these words. (5 min)**

| Khalid | gold | Cairo | dream |
|---|---|---|---|

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**3. Follow the diagram picture to cut and stick to form a story. Prepare and deliver a short presentation of your story describing each picture. (30)**

**Paste the pictures here and write your story.**

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**BUILDING KNOWLEDGE**

**4. Pair-reading. (25 min)**

**a) Silent reading: Student A reads paragraph 1 and summarizes it to Student B.**

**b) Now, switch roles for paragraph 2 and then continue doing this throughout the text.**

**KHALID'S JOURNEY**

Once upon a time, a long time ago, there was a man who lived in a small village in Egypt. His name was Khalid, and he was very poor. His house was very small, but he had a yard. In his yard, there were four trees –three fig trees and an orange tree.

One night, Khalid had a dream. In his dream, he went to Cairo. In Cairo, he became a very rich man. The next night, he had the same dream –he went to Cairo and became rich. When Khalid had the same dream on the third night, he woke up in the morning and said to his wife: "I am going to Cairo." "Don't go", his wife said –but Khalid didn't listen to her. He left his house and started to walk to Cairo.

He arrived in Cairo very late at night. It was dark and Khalid was very tired. But he didn't have money for a hotel, so Khalid went to a park. He lay down on the ground and went to sleep.

The next day, he walked around in Cairo. Khalid was hungry and thirsty but he didn't have money. That night, he went back to the park and slept on the ground again.

On the third day, when Khalid woke up, a man came up to him and said: "Why are you here? Why are you sleeping in the park?" Khalid told the man about his dream. "I had a dream," said Khalid. "The dream told me to come to Cairo, and become rich here."

The other man laughed. "Ha, ha, ha" he laughed. "You are crazy! Don't believe dreams! A week ago, I also had a dream. In my dream, I was in a village, far away from Cairo. In the village, there was a garden, and in the garden there was a tree in each corner. Three trees were fig trees, and the fourth tree was an orange tree. And under the orange tree, I found a bag of gold! Lots of gold! But it was only a dream. I don`t believe dreams."

Khalid listened to the man. He thought about his house and garden in his village. Khalid said "Thank you", to the man, and ran back to his village. He dug a hole under the orange tree in his garden and found a bag of gold!Khalid lived the rest of his life as a rich and happy man. His dream had come true.

**c) After reading and summarizing write 5 questions to recall information. Student A asks questions from the first half of the story and Student B from the second half**

**5. Exploratory questions to discuss in class (5min)**

a) Do you think dreams can predict what will happen in the future? Give examples.

b) Where do you think our dreams come from?

c) Do you think dreams are telling you what you have to do?

**6. Work in two groups and discuss the following statements write arguments based on your position and complete the chart. Then report your information to the class. (10 min)**

| Dreams can come true | |
| --- | --- |
| **Group 1: Yes** | **Group 2: No** |
|  |  |
| **Dreams coming true are examples of coincidence or superstition** | |
| **Group 1:Yes** | **Group 2: No** |
|  |  |

## CONSOLIDATION

**7. Group work. Write a new story in which Khalid decides to disregard his dream. Retell the story using this argument. (40 min)**

-------------------------------------------------------------------------------------------------- -----

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**Annex 11: Story 7**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Story 7**

**Name**: _____

**Date**: _____

**ANTICIPATION (10 min)**

| MEOW TIMES FOUR |
| --- |

The animal control officer rounded up four stray cats: Pudge, Purdue, Piglet, and Mr. Kitty. He put them each in a cage, and the four cages were in a row.

Pudge's cage is next to Purdue's.

But Pudge's cage is not next to Piglet's.

If Piglet's cage is not next to Mr. Kitty's, whose is?_____

(Hint: Diagram it!)

**2. Complete the diagram using these cues. (5 min)**

| Death -Tsunami |
| --- |

sea + earthquake =

flood + people =

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**3. Now write a sentence using the cues in exercise 2. (5 min)**

_____
_____
_____
_____ .

**4. Class work. Brainstorm and discuss about the consequences of a tsunami. (15 min)**
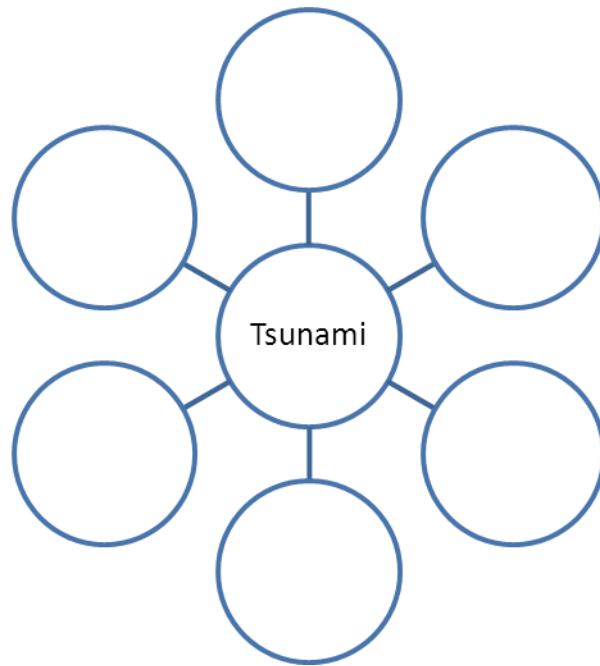
Tsunami

**BUILDING KNOWLEDGE**

**5. Class discussion. Look at the picture and describe what you see. Say how the picture is related to the title. (5 min)**

THE IMPOSSIBLE



**6. Individual work. Read the text in a silent way. (15 min)**

In December 2004 in Thailand a tsunami, a natural disaster caused by an earthquake, impacted beach areas. The movie called The Impossible showed the impact and destruction that this tsunami caused. This is about the drama that a family as many others lived through during and after the flood.

The Bennet family was in Khao Lak beach for Christmas time when the tsunami flooded the beach destroying everything in its path. The family became separated from one another in the cataclysm. Maria and her son, Lucas were swept away. Maria was severely injured so Lucas took care of his mother all the time. On their way, they rescued a little boy trapped in the debris. After the flood, local people helped them to reach a hospital. On their way they could see destruction, people severely injured, death people and missing children. In order to help at the hospital, Lucas assisted people to search for their relatives. Due to a confusion of names, Lucas thought that his mother had died so he was taken to a tent for missing children. Elsewhere, Lucas' father, Henry, and his two brothers had survived the tsunami. Henry was searching for Maria so he sent his little children to a safer place. Meanwhile, at the hospital Lucas discovered that everything was a mistake and his mother had had surgery on her injuries. In the end, the two children, Lucas, Henry and their mother, Maria could be together again. This family could reunite, however, there were lots of families that lost beloved relatives. Also there were children looking for their parents. This movie showed us that humans had no chance to stop natural disasters like a tsunami.

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**7. Discuss in class to answer the following questions. (10 min)**

a) How do you think these people felt during the flood?

b) What would you do to save your life?

c) If you were Lucas' mother and you were injured would you help the other little boy or would you prefer to save yourself? Why?

**8. Game. CONNECT! (20 min)**

a) Stand in a circle.

b) The teacher will announce a starter word, e.g. Tsunami.

c) Take turns around the circle; each of you will say a word that is connected in some way to the previous word.

d) Your will sit down if you accidentally say a word that is not connected to the given word or if you answer too slowly or repeat a word that has already been said.

e) The winners are those who are left standing.

**CONSOLIDATION**

9. **Group work. Imagine you are on vacation at a beach and there is a threat of an earthquake. List six preventive steps you would take to be prepared in case of a tsunami. (15 min)**

Step One

Step Three

Step Five

Step Two

Step Four

Step Six
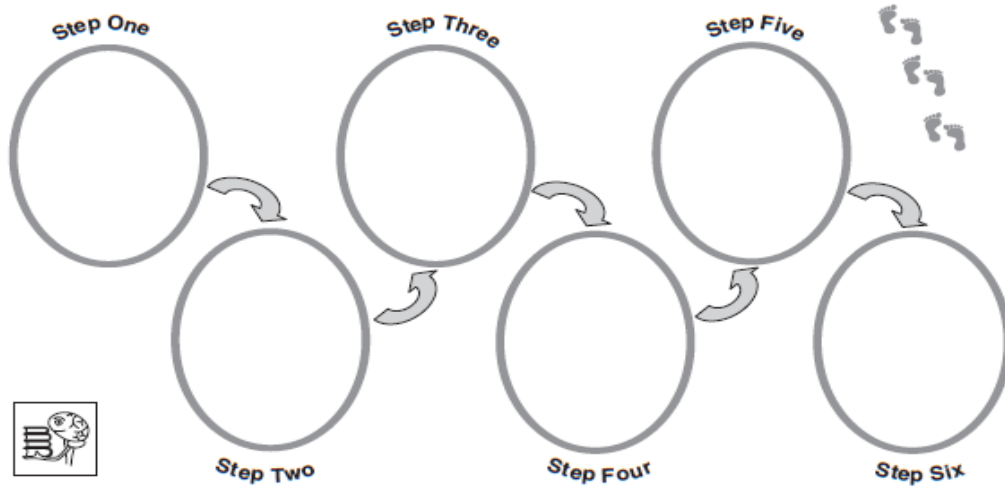
10. **Group work. Now list six steps you would take after the impact of the tsunami. (15 min)**

Six Steps to Success

Step One

Step Three

Step Five

Step Two

Step Four

Step Six
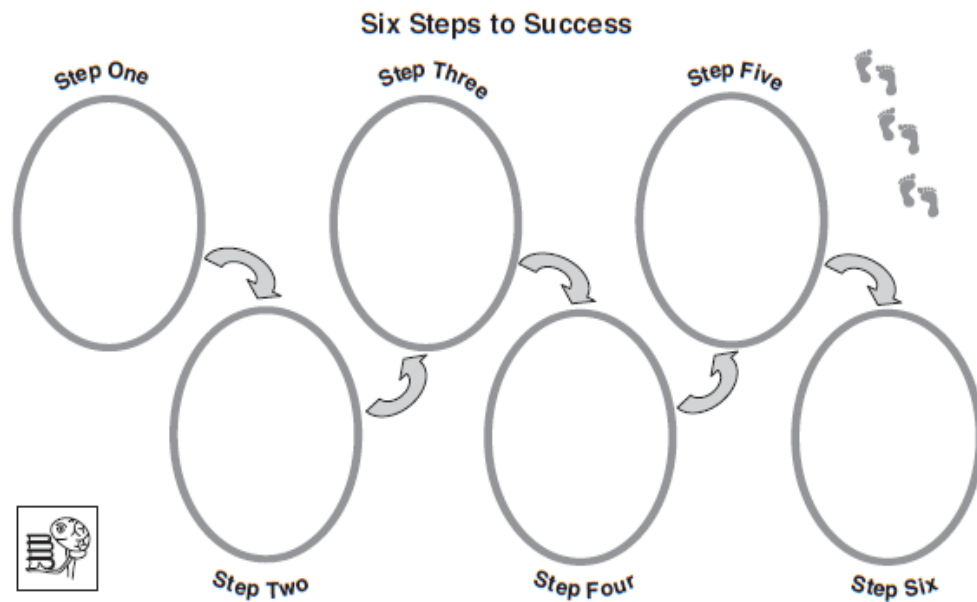
11. **Individual work. Complete the chart. (10 min)**

Things you never knew about ...

TSUNAMI

Causes

What to do before

What to do after

Consecuences
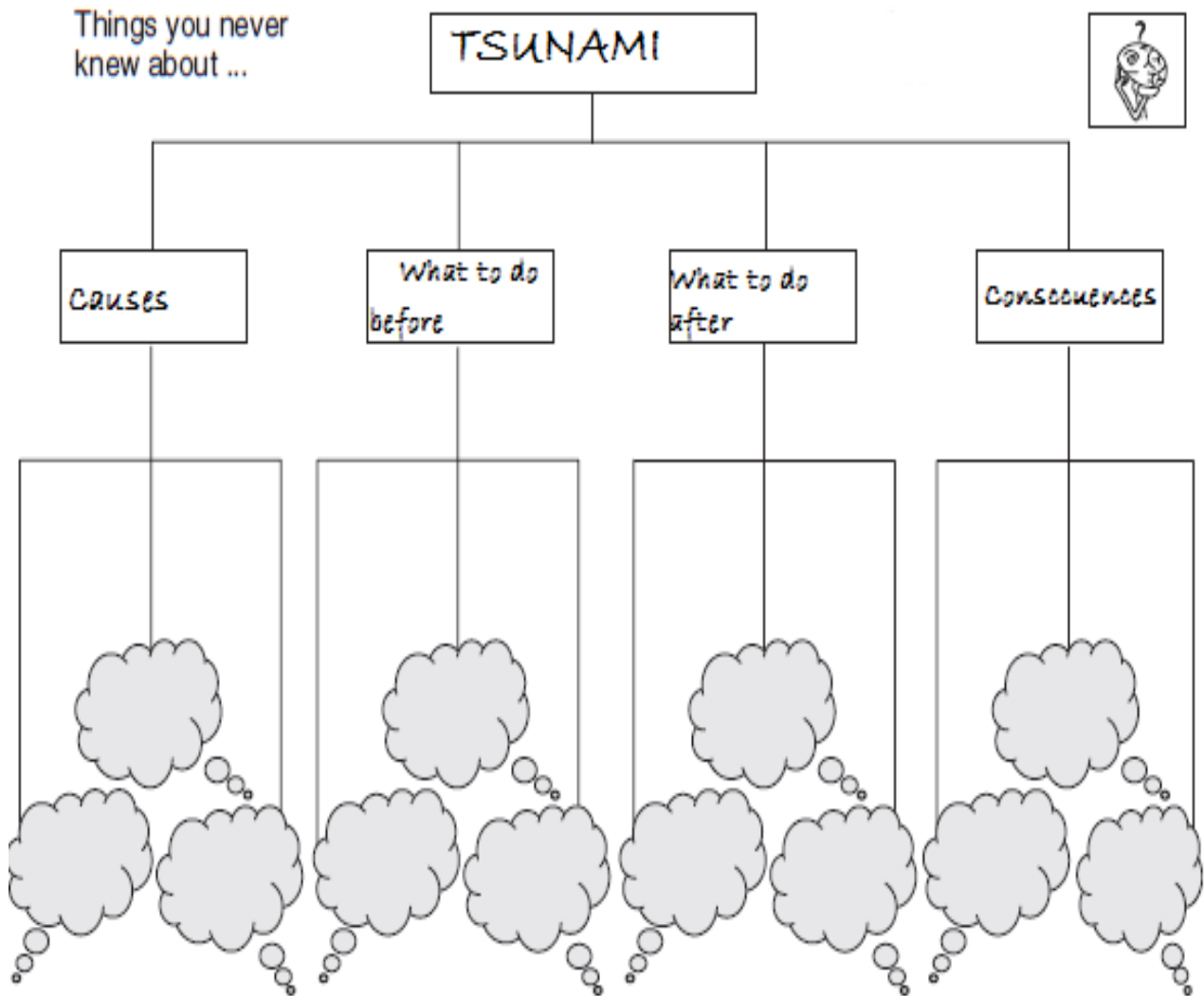
**Annex 12: Story 8**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Story 8**

**Name**: _____

**Date**: _____

## ANTICIPATION

<div style="text-align:center">

**CONNECT!**

</div>

1. **Game. (10 min)**

a) Stand in a circle.

b) The teacher will announce a starter word, e.g. attractive.

c) Take turns around the circle; each of you will say a word that is connected in some way to the previous word.

d) Your will sit down if you accidentally say a word that is not connected to the given word or if you answer too slowly or repeat a word that has already been said.

e) The winners are those who are left standing.

**2. Look at the picture and answer. (5 min)**

Looking Good!
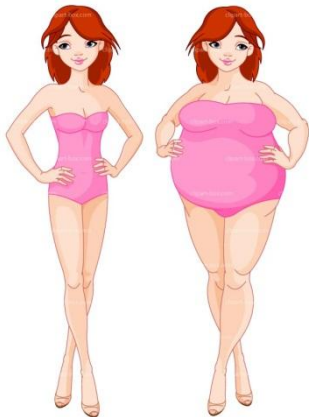


1. What does the picture say / suggest?

-------------------------------------------------------------------------------

-------------------------------------------------------------------------------

2. Which picture do you prefer: 1 or 2? Why?

-------------------------------------------------------------------------------

-------------------------------------------------------------------------------

3. Is weight important to look good? Why?

-------------------------------------------------------------------------------

-------------------------------------------------------------------------------

**3. Brainstorming. Why is physical appearance important? (5 min)**

| In society | In a relationship | At work |
|---|---|---|
| | | |
| | | |
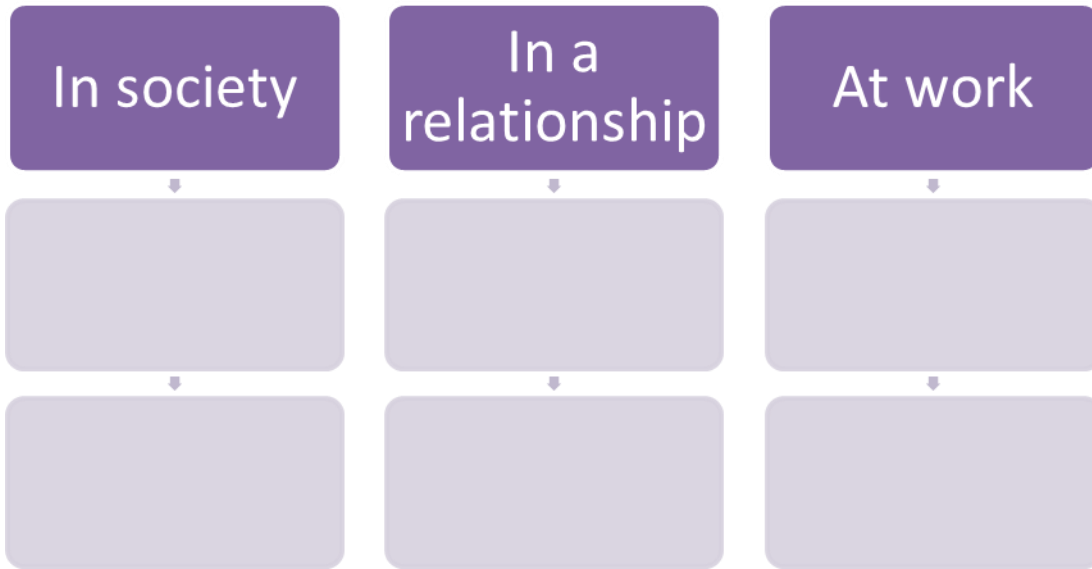
**BUILDING KNOWLEDGE**

**4. Write the main qualities a person should have to impress others. (10**

**Physical appearance**
-
-
-
-

**Personality**
-
-
-
-
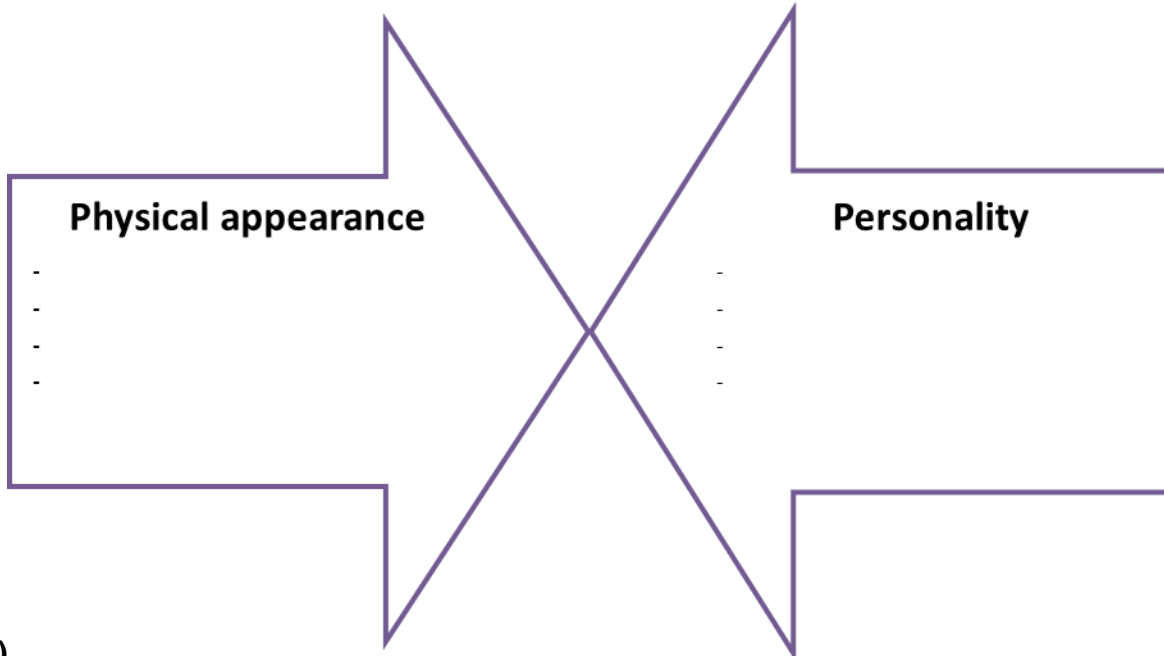
**min)**

**Which is more important?**

**In conclusion, I think**

_____
_____
_____

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**5. Silent reading. Read the letter and underline the unknown words. Then we will check their meaning. (10 min)**

Dear Agony Aunt,

I am writing because a need your advice. I have a crush on a handsome guy at school. He is tall, muscular and attractive. He has short, straight blond hair and blue eyes.  He is intelligent and funny and I would love to talk with him.  The girls in my school are crazy about him. However, I am worried what if he doesn't like me. You know, physical appearance is everything and I feel that I could not compete with those pretty girls since they look like models in magazines. I believe that looks matter a lot in every life situation. This means that you feel good if you look good. You can make a good impression if you are pretty, sexy and well-dressed. People spend a lot of time and money to improve their image. They undergo plastic surgery, herbal treatments, diets or to the gym regularly. Nowadays, looking good is so important that everyone is concerned about it.

Physical appearance is related to physical attractiveness and I don't know if I am physically attractive for that guy. Honestly, I think that lately I have gained a little bit of weight. I have long curly dark hair and brown eyes. I am not as tall as my other classmates, but I think I am more intelligent than the Barbie girls in my class. The other day one of my classmates told me that my dressing style was old-fashioned and I needed to change it. She suggested that I should go to a beauty salon as well as improve my wardrobe. She said that in that way I could impress boys and I would be more attractive to them. I asked her about the importance of personality and she said that this was secondary and boys are more interested in girls who look sexy and pretty. "A beautiful and sexy woman is much admired in society" she said.

The dilemma is: should I change my appearance to impress him or should I let him to get to know me the way I am? I would like to know what you think about this situation. Write to me soon, please.

With Love,

Silvie

Silvie

**6.  Complete the chart. (10 min)**

| "A beautiful and sexy woman is much admired in society" ||
|---|---|
| **AGREE** | **DISAGREE** |
|  |  |
| You can make a good impression if you are pretty, sexy and well-dressed. ||
| **AGREE** | **DISAGREE** |
|  |  |

7. **List down 3 positive and 3 negative aspects of trying to look good to impress society. (5 min)**

Positive

1

2

3

Negative

1

2

3

**8. Class discussion: Exploratory questions. (30 min)**

1. Do you think you can become a better person through plastic surgery, herbal treatments or diets? Explain your answer.

_____

_____

_____

2. Looking attractive and dressing well says who you really are. Do you agree or not? Give your arguments for or against.

_____

_____

_____

3. Is it important to have the admiration of other people?

_____

_____

_____

4. What do you think men think about physical appearance?

_____

_____

_____

5. What do you think is more important for men: a woman's physical appearance or her personality?

_____

_____

_____

6. In which way do you think TV and magazine models influence people's appearance?

_____

_____

_____

**CONSOLIDATION**

**9. If you were Sylvie, what would you choose to do to impress that guy in her school? (15 min)**

## Reflective Decision Making

### DECISION

_____

### WHAT DO YOU NEED TO KNOW BEFORE CONSIDERING THE DECISION?

| BE CREATIVE: BRAINSTORM ALL YOUR IDEAS | |
|---|---|

| OPTIONS | BE CRITICAL: CONSIDER PROS, CONS, CONSEQUENCES |
|---|---|
| 1 | |
| 2 | |
| 3 | |

### FINAL DECISION WITH JUSTIFICATION

_____

_____

_____

**10. Let's suppose you are the journalist, write an advice letter about what she should do to impress the guy she loves. (25 min)**

**Annex 13: Story 9**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Story 9**

**Name**: _____

**Date**: _____

**ANTICIPATION (10 min)**

## What Kind of Animal Is Your Uncle?

Sometimes you can tell a lot about people by comparing them to something else. Here are some examples:

If my sister were a color, it would be red because she's always so loud and so angry.

If that politician were a musical instrument, he'd be a bagpipe because he's full of hot air.

Choose a famous person or someone you know very well. Use this technique to describe him or her.

What color is this person? Why? _____
_____

What animal is this person? Why? _____
_____

What plant? Why? _____
_____

What piece of clothing? Why? _____
_____

What toy? Why? _____

**2. Look at these three terms and predict what the reading is going to be about. (5 min)**

PERSONALITY

INTROVERTED

EXTROVERTED

_____
_____
_____.
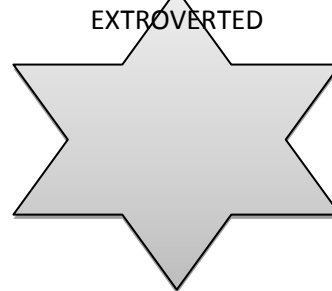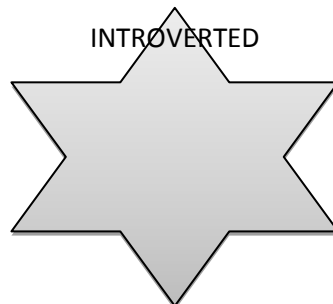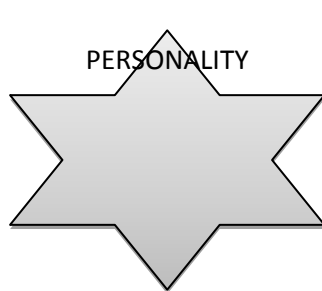
**BUILDING KNOWLEDGE**

**3. Complete the chart. Choose five classmates and ask them to say if they are introverted or extroverted and explain why. (10 min)**

| Name | Introverted/extroverted | Explanation |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

**4. Class reading.**
**a) Underline unknown words while we are reading the paragraphs. (10 min)**
**b) Then take the quiz. You can mark (x) one or both of the two choices. (40 min)**
 (The text was adapted from: http://www.experienceproject.com/stories/Am-Half-Introverted-And-Half-Extroverted/2587556)

I Am Half Introverted And Half Extroverted

**The Results...Both**
By: PrivateLegit

Written on September 20th, 2012

The introverted part of me: I sometimes like to be alone with myself and my thoughts. I do get overwhelmed at times being amongst other people. I consider myself a little shy, but once I get to know you, the feelings are mutual, and trust is established; then the next step is mysterious…

The extroverted part of me: yes, I can blend in and have some fun with people. I don't like to be conceited, but I can be hearty dominated by being impulsive doing something base on urge in a social atmosphere.

I tried to take this quiz down below, but I couldn't answer without marking both choices of the quiz. So I must be both introverted and extroverted. What a combination...!

**How Extroverted Are You?**

**1. Do you tend to:**

(I) Keep others at a distance _____     (E)  Keep others close_____

**2.  In general, you feel _____ with others**

(I) Uncomfortable _____                (E)  Comfortable _____

**3. For you, making friends is**

(I)  A bit difficult_____             (E)  Easy _____

**4. You are told that you are hard to get to know.**

(I)  Yes_____                        (E)  No_____

**5. Oftentimes, the world is too noisy for you.**

(I) True _____                         (E) False_____

**6. For your birthday, you would prefer:**

(I) To be left alone_____        (E) To be surprised with a party_____

**7. You hardly ever do things**...

(I) Alone_____                       (E) In a group_____

**8. Big crowds:**

(I) Are to be avoided_____                    (E) Can be fun or exciting_____

**9. When it comes to giving your opinion...**

(I) you tend to hold back sometimes_____        (E) You always speak your mind_____

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**10. You have the power of persuasion and influence those you know.**

   (I) No_____                                              (E) Yes_____

**11. When you're in a group of people...**

(I) You don't draw that much attention to yourself_____

(E) You tend to take charge and be the leader _____

**12. On your days off...**

  (I) You like to relax_____                              (E) You prefer to be doing

something_____

   **13. When you have to juggle many things at once...**

   (I) It's overwhelming_____                              (E) It's no problem _____

**14. When it comes to decisions, you are:**

   (I) Thoughtful and careful_____                         (E)  Quick to react_____

**15. You are interested trying extreme sports like skydiving or bungee  jumping.**

   (I) No_____                                              (E) Yes_____

**16. You love to go to loud concerts.**

   (I) No_____                                              (E) Yes_____

**17. No matter what's going on, you tend to be having fun.**

   (I) No_____                                              (E) Yes_____

**18. You would say that your sense of humor is more:**

(I)  Sarcastic / snarky_____                              (E) Goofy / fun_____

**c) Now count your answers and write the number of answers under each option. (10 min)**

| (I)= Introverted | (E)= Extroverted | (I)- (E)= Both |
|---|---|---|
|  |  |  |

**d) Answer: How to what extent is your personality introverted, extroverted or both?**

_____

_____

_____

_____

_____.

### CONSOLIDATION

**5. Write a short letter (100-150 words) to a pen pal describing yourself and saying who you get on with, who you don't and why. (45 min)**

Part 1:

- Introduce yourself (name, age, where you live)
- Describe your personality

Part 2:

- Describe at least two members of your family
- Give details about them (appearance, personality etc.)
- Make comparisons between you and them.

Part 3:

- Say who you get on with in your family and why.
- Say who you don't get on with your family and why.
- Try to make contrasts between the two.

**Annex 14: Story 10**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Story 10**

**Name**: _____

**Date**: _____

**ANTICIPATION**

1. **Group contest (15 min)**
a) Line up in two teams of five students. The rest of the students will be the jury.
b) Each team will have one marker.
c) You are going to create a short story on the board.
d) After writing a sentence related to the previous one, you will pass the marker to the next classmate.
e) You will keep writing during 5 minutes.
f) The Jury will decide which the best story is.
g) The title is Vacation Time.

2. **Write the best story below. ( 10  min)**

**Vacation Time**

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____.

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**BUILDING KNOWLEDGE**

**3. Class reading. Read the story aloud. Each student reads a sentence. Underline unknown words to check them later. (15 min)**

### Last Day of School

Vacation time is coming soon and I am very excited. My friends and I have spent the past three years together. I know that next year we will not be together again. Some of us will go to other high schools, others will stay but in a different class. We will not be classmates anymore. We had lots of challenges as well as adventures. We worked hard all the time studying for tests, doing our homework, as well as preparing projects and role-plays. I made lots of sacrifices to have every task ready. I stayed up late at night or stayed at home while my family had fun during the weekends. I can't even begin to tell you about all the school stuff that I took with me wherever I went.

We have grown and matured during these three last years together. We have understood the value of friendship and solidarity. We shared successes, and mischief as well as failures. Besides, we supported each other when it was needed. We have spent time together at many special events. The best part of coming to school has been to see my friends and gossip about the things and experiences of the day before.

My teacher shave become an important part of our learning and maturation. They were always pushing us to fulfill our goals. They always suggested us to be good and carry on working hard since this will be the key for our success. They have taught us how valuable responsibility and respect are in our lives. Although I have criticized my teachers, they have been good because they have warned us every time we did something inappropriate. They said that this would benefit us. So I have not only learned theories or exercises, I have also learned to be honest and responsible with my tasks.

Today is our last day of school and our vacation time is awaiting us. I will miss my friends and I hope to see all of them in the next school year. We will not be classmates anymore but we will be friends forever. Ten "B" will always be in my heart!

4. **Class discussion. (10 min)**
a) How did you feel after reading the text?

b) How much do you think you have matured during this school year?

c) How important were your classmates to you?

d) If you had the opportunity to change something about this school year, what would you change?

5. **Complete the map and discuss your answers with a classmate. (15 min)**

Positive aspects

Negative aspects

school year
2012-2013

**6. Complete the Map. (15min)**

How
important
your
classmates
are.
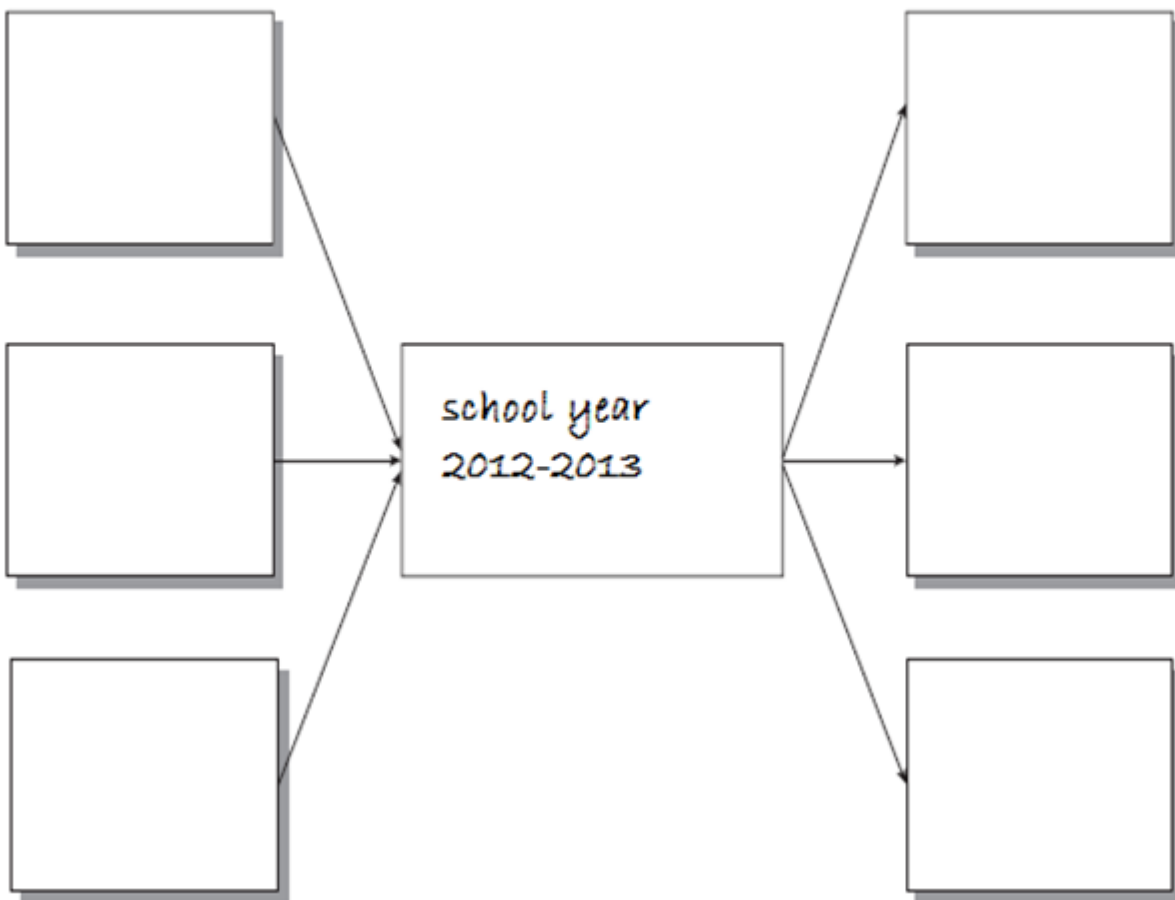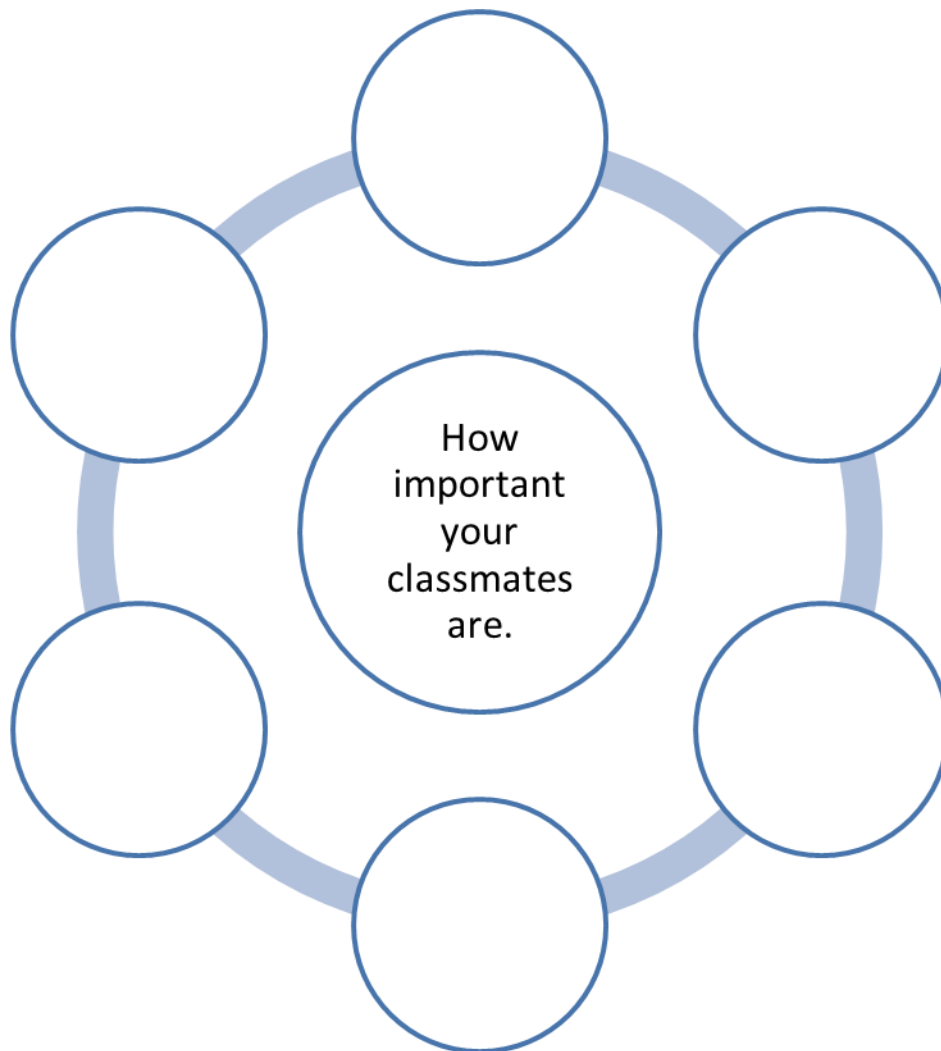
Overall, I think

_____
_____
_____
_____
_____.

**CONSOLIDATION**

7. **Individual work: Reflect about your school year and complete the chart. Then use the information to write a short text and give more details. (40 min)**

SCHOOL

- Your goals for next year.
- What would you change?
- Things I enjoyed the least
- Things I enjoyed the most

MY SCHOOL YEAR

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____
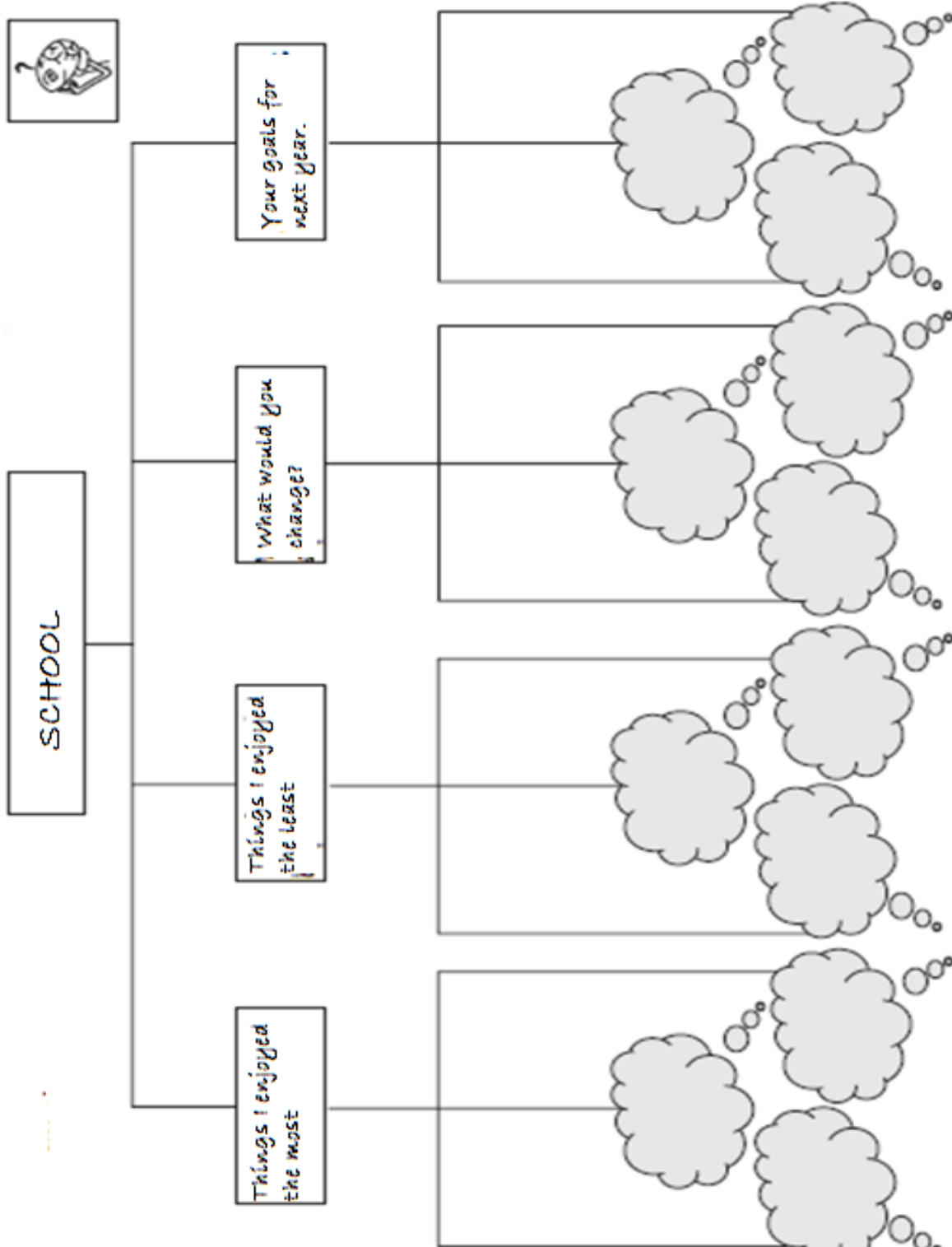
**Annex 15: Pre-test**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Pre-test**

**Student's name**:_____

**Date**:_____

**Part 1**

1. **Who were the characters?**
   a)  _____
   b)  _____
   c)  _____

2. **Underline the correct option. Sally and Tony were talking about:**
   a)  a comic movie
   b)  a science fiction movie
   c)  a horror movie
   d)  a romantic movie

3. **Match the two halves to form sentences.**

   a)  Tony liked the movie because                 "Your end is near".
   b)  The kids in the movie                      thought it was an old trick.
   c)  The strange voice said,                    it was so real.

**Part 2**

1. **Interpret the idea and underline the correct option.**

Sally: Oh, come on that's and old trick.

   a) Sally did not like the movie.
   b) Sally liked the movie.
   c) Sally believed that weird calls could be true.
   d) Sally was not scared of the strange phone calls.

2. **Write the correct number (1-4) to put the text in order.**

_____ Sally got a weird phone call.

_____Tony told Sally about a movie he saw on TV.

_____ Fred wanted to tell Sally about the same movie.

_____Sally was not interested in talking about the movie again.

3. **Underline the main idea of the text.**

   **a)** The text was about strange accidents.
   **b)** The text was about weird phone calls.
   **c)** The text was about a boy falling off a building.
   **d)** The text was about a movie that Tony saw yesterday.

4. **Underline the correct Spanish version.**

**Don't even tell me about it!**

   a) Cuentame!
   b) Ni me digas!
   c) No quiero saber!
   d) No me interesa!

**Part 3**

1. **Could weird phone calls happen in real life? Why?**

_____
_____
_____

2. **Do you think superstitions can come true? Why?**

_____

_____

_____

3. **Give an example of a weird thing that has happened to you.**

_____

_____

_____

**Part 4**

1. **Compare: What can happen in horror movies that cannot happen in reality? (Write three differences)**

| REALITY HORROR MOVIES | REALITY |
|---|---|
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**2. Distinguish 4 characteristics that a horror movie should have to be close to reality. Explain Why?**

| | |
|---|---|
| **1.** |  |
|  |  |
| **2.** |  |
|  |  |
| **3** |  |
|  |  |
| **4.** |  |
|  |  |

**Part 5**

1. **Write an end to the movie presented in the text. How would you avoid bad things happening? How would you save your life?**

_____
_____
_____
_____.

2. **Combine reality and fiction characteristics of a good horror movie to create a new plot for the story.**

_____
_____
_____
_____
_____

**Part 6**

1. **How would you feel if you knew that something bad is going to happen to you?**

_____
_____
_____
_____.

2. **Do you think horror movies affect you in any way? Explain Why?**

_____
_____
_____
_____.

3. **Conclude: what does a horror movie need to be a good movie?**

_____
_____
_____
_____.

**Annex 16: Mid-test**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Mid-test**

**Name**: _____

**Date**: _____

**PART 1**

1. **Match the two halves to form sentences.**

a) The Blind Side is                    is a story about dreams.

b) Twilight is                           a love story.

c) DVD horror is                       a story of personal achievement.

d) Storytelling is                      a story about horror films.

e) The United States of America        a story about rattlesnakes.

f) Khalid's Journey is                 describes important landmarks.

2. **Name the story you liked the most.**

_____

**PART 2**

1. **Interpret the idea and underline the correct option.**

**A man said to Khalid "You are crazy! Don't believe in your dreams."**

a) Dreams do not come true.
b) If you believe in your dreams, they can come true.
c) Dreams come true.
d) Dreams usually come true.

**2. Paraphrase this expression. (Explain it in your own words).**

**Edward Cullen was concerned that his romantic desire for Bella could not be enough to overcome his vampire desire.**

--------------------------------------------------------------------------------------------------------------------

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--------------------------------------------------------------------------------------------------------------------

**3. Write the correct number (1-4) to put the story in order.**

_____The Thouhys adopted Michael Oher.

_____ Michael Oher became a famous football player.

_____ Michael Oher was enrolled in a White Christian School.

_____Michael Oher plays for the Baltimore Ravens.

**PART 3**

1. **What facts can you bring up to show that dreams can or cannot come true?**

    --------------------------------------------------------------------------------------------------------------------
    --------------------------------------------------------------------------------------------------------------------
    --------------------------------------------------------------------------------------------------------------------
    --------------------------------------------------------------------------------------------------------------------

2. **Using arguments demonstrate why Bella and Edward cannot be together.**

    --------------------------------------------------------------------------------------------------------------------
    --------------------------------------------------------------------------------------------------------------------
    --------------------------------------------------------------------------------------------------------------------
    --------------------------------------------------------------------------------------------------------------------

3. **What would you need to become a successful person?**

    --------------------------------------------------------------------------------------------------------------------
    --------------------------------------------------------------------------------------------------------------------
    --------------------------------------------------------------------------------------------------------------------

**PART 4**

1. **Complete the chart with ideas to support that Cuenca is a perfect city to live.**

Cuenca
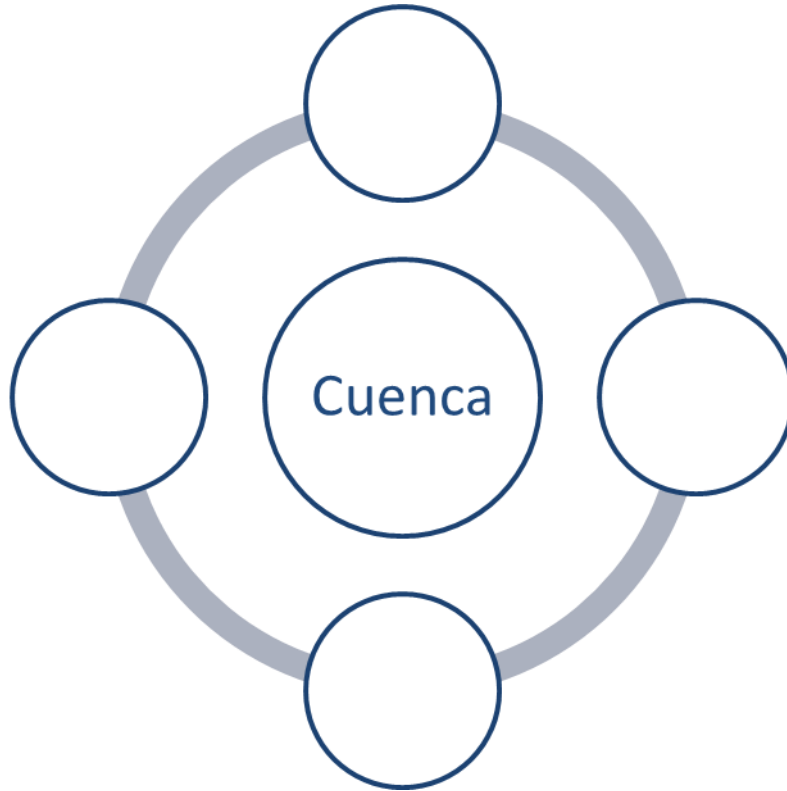
2. **Write 3 positive aspects about rattlesnakes and their importance.**

a) _____

b) _____

c) _____

**PART 5**

1. **What solutions would you suggest to a girl who has an impossible**



   **love.**

2. **List three ways how you could become a good person.**

a)_____

b) _____

c) _____


**PART 6**

1. **Conclude: How close are our dreams to reality?  Establish a relationship.**
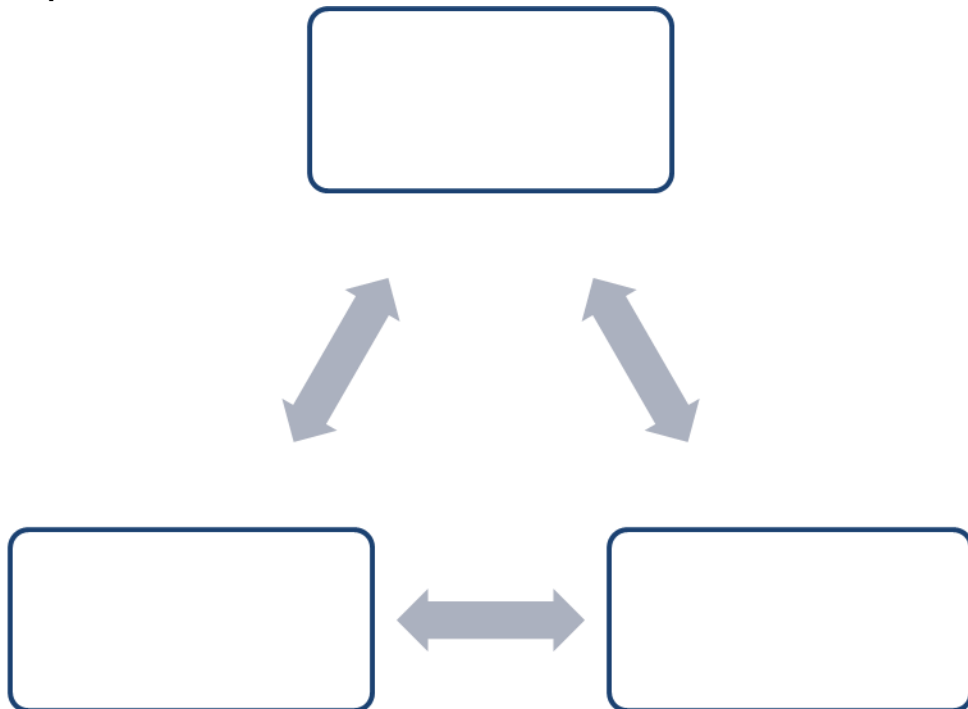
## 2. Interpret the following statements:

"There is only one thing that makes a dream impossible to achieve: the fear of failure."
(The Alchemist by Paulo Coelho)

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"And, when you want something, all the universe conspires in helping you to achieve it."
(The Alchemist by Paulo Coelho)

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**Annex 17: Post-test**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Post-test**

**Name**: _____

**Date**: _____

**PART 1**

1. **Look at the pictures and match them to the correct name of the story.**





Khalid's Journey

United States of America

Rattlesnakes

The Blind Side

**2.** **Underline the character that belongs to the story.**

| DVD Horror! | Twilight | The impossible |
|---|---|---|
| a) Khalid | a) Michael Oher | a) Lucas |
| b) Joseph | b) Sara | b) Silvie |
| c) Bella | c) Jacob | c) Edward |

**PART 2**

| An introverted person | An extroverted person |
|---|---|
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |
| 4. | 4. |

**1.** **Interpret the pictures below**

_____    _____    _____

_____    _____    _____

_____    _____    _____

_____    _____    _____
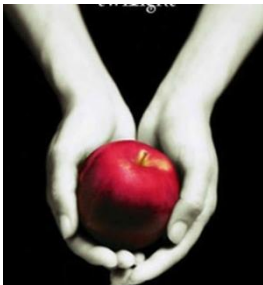
**PART 3**

1.      **Classify the characters from the stories according to their personality and explain why.**

|  | Introverted/ extroverted | Why |
|---|---|---|
| Michael Oher (The Blind Side) | | |
| María Bennet (The Impossible) | | |
| Bella Swan (Twilight) | | |

2.      **If you were Sylvie in the Agony Aunt story, how would you have handled the physical appearance situation?**

_____
_____
_____
_____
_____.

3.    **Imagine your best friend has an impossible love. Give her advice about what she should do.**

_____
_____
_____
_____
_____.

**PART 4**

1.      **Let's suppose you find an abandoned baby, analyze what will happen:**

| If you help and support the baby: | If you don't help and support the baby: |
|---|---|
| **What could happen?** | **What could happen?** |
| 1……………………………………………………… ……………………………………………………… ……………………………………………………… 2……………………………………………………… ……………………………………………………… ……………………………………………………… 3……………………………………………………… ……………………………………………………… ……………………………………………………… | 1……………………………………………………………… ……………………………………………………………… ……………………………………………………………… 2……………………………………………………………… ……………………………………………………………… ……………………………………………………………… 3……………………………………………………………… ……………………………………………………………… ……………………………………………………………… |

2. **Contrast the following character to find similarities and differences between you and her.**

| Maria Bennet ( The Impossible) | Me |
|---|---|
| **SIMILARITIES** ||
| **1.** **2.** ||
| **DIFFERENCES** ||
| 1. 2. | |

**PART 5**

1. **Create a plan of four steps by which you can become a successful person.**

Step One

Step Three

Step Two

Step Four
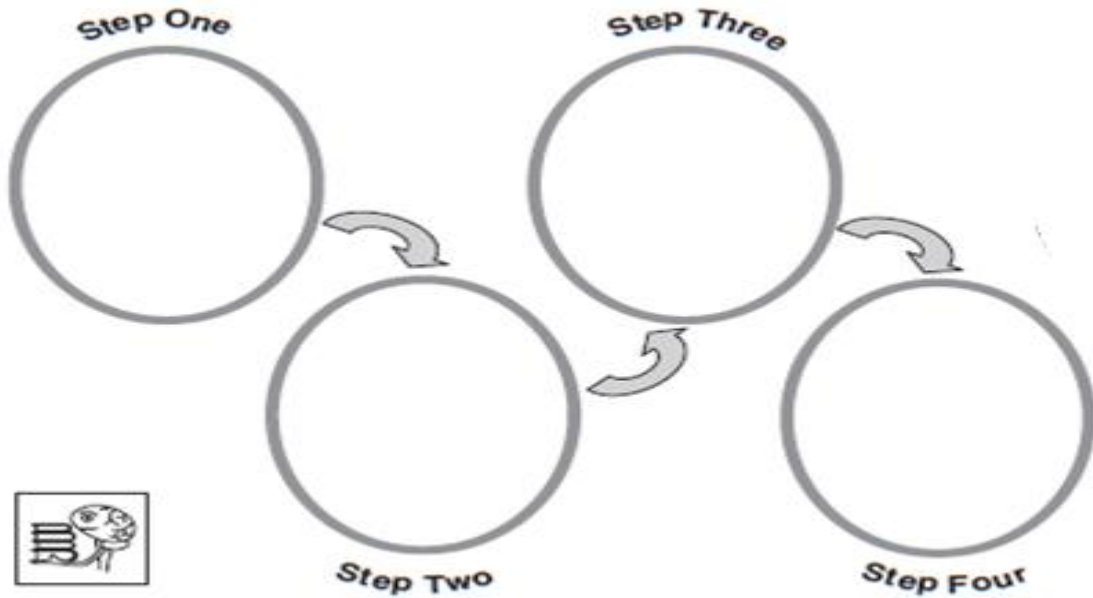
2. **Identify three main problems you faced this school year and suggest solutions to these problems:**

| Problem | Solution |
|---|---|
| 1 | |
| 2 | |
| 3 | |

**PART 6**

1. **Decide** which story you have worked on you liked the most and why.
2. **Judge** whether the main character in this story has acted in a good or bad way.
3. **Justify** if the story really could have happened.
4. **Compare** the story with your own life.
5. **Consider** how this story could help you in your own life.
6. **Appraise** the value of the story.
7. **Write** a recommendation: Why the story should be read.

1._____
_____
_____

2._____
_____
_____

3._____
_____
_____

4._____
_____
_____

5._____
_____
_____

6._____
_____
_____

7._____
_____
_____

**Annex 18: Questionnaire**

**Critical Thinking Skills Development and English Improvement through Reading and Writing Activities at Lower-Intermediate Level in Sagrados Corazones High School in Cuenca, Ecuador**

**Questionnaire**

**Date**: _____

This questionnaire intends to gather responses from the students of Grade 10 Group B (treatment group) in Sagrados Corazones High School. The purpose is to find out the degree of your appreciation and points of view about the activities done during the treatment.

By completing this questionnaire with frank answers, you will be making an important contribution to the development of the Critical Thinking Skills project. Your answers will be anonymous.

**Instructions:** Think about the experiences you had on reading and writing activities during the second semester to answer the questions.

　**1) Do you think reading and writing skills are important in English?**

Yes

No

Explain your answer

_____
_____
_____.

2. **Which story did you like best? Choose one option (x)**

　a) The Blind Side_____
　b) DVD Horror! _____
　c) Storytelling (rattlesnakes)_____
　d) The United States of
　　America_____
　e) Twilight _____

　f) Khalid's dream _____
　g) The impossible _____
　h) Agony Aunt Letter _____
　i) Personality Quiz _____
　j) Last Day of School _____

　　**Explain your choice for your Number 1.**

　　_____.

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3. **Which part of the class did you like best? Circle one option**

a)Anticipation activities: warm ups and topic introduction.

b) Building Knowledge activities: brainstorming, contrasting, describing images, discussion in class, exploratory questions, etc.

c) Consolidation activities: writing response letters, writing short essays, giving solutions, the clock activity, writing from different points of view.

4. **Please rate the following statements choosing from 1 to 6 (1= strongly agree; 2= agree; 3= somewhat agree; 4= somewhat disagree; 5= disagree; 6= strongly disagree).**

| 1 | The use of reading and writing activities helped me to share my ideas by being able to support them better. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 2 | I enjoyed working on the reading and writing activities. | | | | | | |
| 3 | I liked the topics dealt with in the stories. | | | | | | |
| 4. | The use of reading and writing activities helped me to think logically. | | | | | | |

5. **Circle your option. I think the use of open-ended questions helped me especially …**

a) To propose ideas and arguments

b) To make associations and connections

c) To organize information logically

d) To relate new information to the information learned before

e) To be critical when solving problems

6. **Circle the correct option. You think the activities were:**

a) Interesting

b) Funny

c) Boring

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7. **How did you feel during the development of reading and writing activities? Choose one option (x).**

    a. Bored _____

    b. Excited_____

    c. Relaxed_____

    d. Worried_____

    e. Unfocussed_____

    f. Comfortable_____

Explain your answers.

_____

_____

_____.

8. **Choose one option (X) for the thing you find difficult about completing writing activities.**

_____a. Lack of knowledge about the topic

_____b. Developing the arguments

_____c. Answering open-ended questions

_____d. Understanding and using new vocabulary and expressions

_____e. Difficulties in presenting your own ideas

9. **How valuable were these activities for you? Support your ideas.**

_____

_____

_____

_____.

10. **Overall, how did you feel about the reading and writing activities? How far did these activities help you to improve your thinking and language skills?**

_____

_____

_____

_____

_____

_____.

**Thank you for your time and help.**