UNIVERSIDAD TÉCNICA DE AMBATO



CENTRO DE POSGRADOS PROGRAMA DE MAESTRÍA EN ENSEÑANZA DE INGLÉS COMO LENGUA EXTRANJERA COHORTE 2021

TEMA: "PLAN READING STRATEGY HELPS TO IMPROVE CRITICAL THINKING THROUGH READING IN EFL STUDENTS".

Trabajo de Titulación, previo a la obtención del Título de Cuarto Nivel de Magíster en Enseñanza de Inglés como Lengua Extranjera.

Modalidad del Trabajo de Titulación: Proyecto de Titulación con Componentes de Investigación Aplicada y de Desarrollo.

AUTOR: Licenciado Carlos Marcelo López Tello.

DIRECTOR: Licenciado Diego Christian Cajas Quishpe PhD.

Ambato-Ecuador

2023

A la Unidad de Titulación del Centro de Posgrados

El Tribunal receptor del Trabajo de Titulación, presidido por el Ingeniero Héctor Fernando Gómez Alvarado. PhD, e integrado por las señoras: Licenciada Carmen Susana Parrales Molina Magíster y Licenciada Miryan Consuelo Salazar Tobar Magíster designados por la Unidad Académica de Titulación del Centro de Posgrados de la Universidad Técnica de Ambato, para receptar el Trabajo de Titulación con el tema: PLAN READING STRATEGY HELPS TO IMPROVE CRITICAL THINKING THROUGH READING IN EFL STUDENTS elaborado y presentado por el señor Licenciado Carlos Marcelo López Tello para optar por el Título de cuarto nivel de Magíster en Enseñanza de Inglés como Lengua Extranjera; una vez escuchada la defensa oral del Trabajo de Titulación, el Tribunal aprueba y remite el trabajo para uso y custodia en las bibliotecas de la UTA.

Ing. Héctor Fernando Gómez Alvarado PhD.

Presidente y Miembro del Tribunal

Lcda. Carmen Susana Parrales Molina MSc.

Miembro del Tribunal

Lcda. Miryan Consuelo Salazar Tobar Mg.

Miembro del Tribunal

AUTORÍA DEL TRABAJO DE TITULACIÓN

La responsabilidad de las opiniones, comentarios y críticas emitidas en el Trabajo de

Titulación presentado con el tema: PLAN reading strategy helps to improve critical

thinking through reading in EFL students, le corresponde exclusivamente a:

Licenciado Carlos Marcelo López Tello, Autor bajo la Dirección del Licenciado Diego

Christian Cajas Quishpe PhD., y el patrimonio intelectual a la Universidad Técnica de

Ambato.

Licenciado Carlos Marcelo López Tello c.c.: 1804630737

AUTOR

Licenciado Diego Christian Cajas Quishpe, PhD.

c.c.: 1715484877

DIRECTOR

iii

DERECHOS DE AUTOR

Autorizo a la Universidad Técnica de Ambato, para que el Trabajo de Titulación, sirva

como un documento disponible para su lectura, consulta y procesos de investigación,

según las normas de la Institución.

Cedo los Derechos de mi trabajo, con fines de difusión pública, además apruebo la

reproducción de este, dentro de las regulaciones de la Universidad.

Licenciado Carlos Marcelo López Tello c.c.: 1804630737

C.C.: 1004030/3

iv

ÍNDICE GENRAL DE CONTENIDOS

Portada		i
A la Unidad	de Titulación del Centro de Posgrados	ii
AUTORÍA I	DEL TRABAJO DE TITULACIÓN	iii
DERECHOS	S DE AUTOR	iv
ÍNDICE DE	GRAFICOS	vii
ÍNDICE DE	TABLAS	viii
DEDICATO	PRIA	ix
AGRADEC	IMIENTO	X
RESUMEN	EJECUTIVO	xi
CHAPTER 1	I	1
THE RESEA	ARCH PROBLEM	1
1.1 Introdu	uction	1
1.2 Justific	cation	3
1.3. Obj	jectives	5
1.3.1.	General Objective	5
1.3.2.	Specific Objectives	5
CHAPTER I	Π	5
RESEARCH	H BACKGROUND	5
2.1 PLAN	Reading Strategy.	8
2.1.1.	Teaching Method.	8
2.1.2	Cooperative Learning.	10
2.1.3	Inquiry-Based Learning.	12
2.1.4	Teachers' role.	15
2.1.5	Questioning.	16
2.1.6	Reading Strategies	19
2.1.7	PLAN Reading Strategy	21
2.2 Critica	al Thinking	25
2.2.1.	Learning Process.	25

2.2.	.2 Cognitivism	26
2.2.	.3 Cognitive Learning Strategies.	29
2.2.	.4 Cognitive Functions	30
2.2.	.5 Critical Thinking.	33
СНАРТ	TER III	38
METHO	ODOLOGY	38
3.1 Lo	ocation	38
3.2 M	laterial and equipment.	39
3.3 Re	esearch Method.	40
3.4 H	ypothesis	42
3.4.	.1 Null hypothesis.	42
3.4.	.2 Alternative hypothesis	43
3.4.	.3 Research questions.	43
3.5.	Population and Sample	43
3.6 Da	ata Collection.	44
3.7	Data processing and statistical analysis	45
3.8.	Response variables or results	45
СНАРТ	TER IV	47
RESUL'	TS AND DISCUSSIONS	47
СНАРТ	ER V	55
CONCL	LUSIONS AND RECOMMENDATIONS	55
5.1	Conclusions	56
5.2	Recommendations	57
BIBLIO	OGRAPHY	59
5.4 Aı	nnexes	68
CHAPT	ER VI	75
6 PR	OPOSAI	75

ÍNDICE DE GRAFICOS

GRAPHIC N°1: PRE-TEST RESULTS	50
GRAPHIC N°2: CONTROL AND EXPERIMENTAL GROUPS	51
GRAPHIC N°3: POST-TEST RESULTS	53
GRAPHIC N°4: CONTROL AND EXPERIMENTAL GROUPS	54
GRAPHIC N°5: PRE-TEST – CURVE OF NORMALITY	55
GRAPHIC N°6: POST-TEST – CURVE OF NORMALITY	55
GRAPHIC N°7: CONTROL GROUP	56
GRAPHIC N°8: EXPERIMENTAL GROUP	56
GRAPHIC N°9: THE WILCOXON SIGNED-RANK TEST	57

ÍNDICE DE TABLAS

TABLE N°1: POPULATION	46
TABLE N°2: PRE-TEST RESULTS	50
TABLE N°3: T-TEST FOR INDEPENDENT SAMPLES	51
TABLE N°4: POST-TEST RESULTS	52
TABLE N°5: T-TEST FOR INDEPENDENT SAMPLES	53
TABLE N°6: TEST OF NORMALITY OF DATA	54
TABLE N°7: MANN-WHITNEY TEST	56
TABLE N°8: THE WILCOXON SIGNED-RANK TEST	57
TABLE N°9: OPERATIVE MODEL	82

DEDICATORIA

El presente trabajo de investigación fruto del esfuerzo y perseverancia lo dedico principalmente a Dios, quien me ha dado la vida.

A mis padres Marcelo López Rivera y Mercedes Tello Vega por su apoyo incondicional, a mis familiares más cercanos quienes con su cariño y apoyo me han ayudado a seguir adelante.

A todos los que me apoyaron para escribir y concluir con el presente proyecto.

Para ellos es esta dedicatoria, pues es a ellos a quienes se los debo por su apoyo incondicional.

Marcelo López

AGRADECIMIENTO

En primer lugar quiero agradecer a la Universidad Técnica de Ambato, por ser la institución que me abrió sus puertas para obtener mi título en el Centro de Posgrados.

A todos mis maestros quienes me inculcaron sabios consejos y conocimientos, a las personas que de una u otra manera apoyaron la realización del trabajo de titulación y de manera especial agradezco a mi Guía Tutor Diego Christian Cajas Quishpe, PhD, quien con su experiencia me encaminó a la culminación de este trabajo investigativo.

Marcelo López

UNIVERSIDAD TÉCNICA DE AMBATO CENTRO DE POSGRADOS

MAESTRÍA EN ENSEÑANZA DE INGLÉS COMO LENGUA EXTRANJERA COHORTE 2021

TEMA:

PLAN READING STRATEGY HELPS TO IMPROVE CRITICAL THINKING

THROUGH READING IN EFL STUDENTS.

MODALIDAD DE TITULACIÓN: Proyecto de Titulación con Componentes de

Investigación Aplicada y de Desarrollo.

AUTOR: Licenciado Carlos Marcelo López Tello.

DIRECTOR: Licenciado Diego Christian Cajas Quishpe, PhD.

FECHA: Seis de marzo de dos mil veinte y tres

RESUMEN EJECUTIVO

Reading strategies in the English language are very significant in the students' learning process because, through reading, they can develop various skills; the most important, critical thinking. This skill will always be part of their academic, social and professional life. Other meta-cognitive strategies, such as inferring, deducing, and interpreting, are based on this skill, which allows students to expand their knowledge and criteria. Throughout their teaching, educators have found it challenging to develop these strategies. They have not had the necessary tools to do so.

For this reason, the present work aims to study how using the PLAN reading strategy helps critical thinking through reading. This work was applied to 36 students in the sixth year of basic education at the General High School of "Atenas" in Ambato. The method used in this research was the quasi-experimental design since it allows students to study the change process and make immediate decisions. In addition, the pre-test and the post-test gave the final result after applying the investigation.

This study employed a survey to measure students' opinions to demonstrate improved critical thinking skills through reading. This research lasted six months, during which several reading activities were carried out using the PLAN strategy. As a result, students could predict, Locate, Add, and Note the information from the readings

xi

provided to them. The final results show that students improved their critical thinking. In addition, they could read and comprehend the text easily.

Moreover, students can now express their opinions and feelings about the reading topics more fluently. They feel more confident participating and developing the activities in class, because they are easy to complete, thus pupils achieve their goals in each reading task. Students also showed much interest in reading because, at the beginning of the research, most of them felt that reading was a monotonous and tedious activity.

KEYWORDS: PREDICT, LOCATE, DEDUCTION, INFERENCE, INTERPRETATION, INTERACTION, IMPROVEMENT, COLLABORATIVE WORK, APPROACH.

CHAPTER I

THE RESEARCH PROBLEM

1.1 Introduction.

Reading is one of the most important skills in English language acquisition; it contributes learners to have some benefits such as growing vocabulary, strengthening their brains, enhancing their knowledge, increasing their memory, imagination and concentration. Thus, readers will be able to build their meanings, reflect on the text and context, increase vocabulary knowledge and more importantly, develop their critical thinking. Therefore, it is relevant that learners can adequately improve these abilities through reading.

There are many reasons students don't like reading; one of them is that they are not motivated to read texts or books presented in classes. Another reason is that the learning process might be hard for them to assimilate when the teacher does not have clear ideas about how to help students to read. Sometimes, it is difficult for students to follow the pace of reading or understand new vocabulary. Also, teachers may feel frustrated when they see that their learners are not able to share their thoughts about any topic, or if they cannot find an appropriate strategy for their teaching classes. According to Al Raqqad et al. (2019)

"The use of reading strategies by the learners of language will help them overcome language barriers become more conscious of the comprehension and learning methods of the language and develop confidence in learning reading"

Therefore, educators must choose useful methods or strategies to help students overcome those barriers which affect their motivation and academic development

In Ecuador, reading is a topic that has always been discussed. According to an Ecuadorian newspaper "El Comercio" most Ecuadorians read little or nothing. They read half a book per year. (Criollo, 2017). In Ecuador 26, 5% of people do not like to give some time to read, 56, 8 % do not care about reading, and 31, 7% do not have time to do it. (INEC, 2012). This is not far from EFL students' reality during classes. Tara (2013) mentioned that "Ecuador does not have much of a reading culture. Books are expensive and hard to come by. People who read for pleasure are few and far between." Therefore, learners are not accustomed to read in a foreign language. Most of the time, they read or speak mechanically. Also, poor reading habits affect learners' academic performance. According to Anyaegbu, et al. (2016), "Students themselves contribute to their inability to develop good reading habits." This can be a problem in the future since they might struggle to achieve their academic goals at higher levels of education.

In the *Unidad Educativa Atenas*, English teachers have encountered many problems with their reading classes; this is because they need to apply various strategies to help learners develop critical thinking. According to Bates and Morgan, (2018) "Professional development should positively influence teacher knowledge and practice and, in turn, student learning." This is the basis of pedagogy, because educators need constant preparation to face different problems and solve them during their professional journey. In 2019, Ali et al., stated that "Educators need to know different types of strategies that are appropriate for teaching because it is necessary to apply a specific scheme for each level of English." Learners and teachers will make

sure to use an appropriate strategy to think critically through some reading strategies that help them in the reading process. Therefore, educators should look for new approaches or adapt innovative resources to apply in the class, demonstrating positive results in the EFL learners.

1.2 Justification.

This research is essential in the educational field because it will give an open view of reading, which is why this study was conducted. The researcher found few studies about the PLAN reading strategy applied in the English learning process to develop students' critical thinking. This strategy has four important stages, which are helpful in building, and activating students' knowledge, developing their interest, learning new concepts, determining central ideas or details and rehearsing further information. According to Caverly, Mandeville, and Nicholson (2004), "PLAN is an acronym for a study-reading strategy with four distinct steps that students are taught to use before, during, and after reading: Predict, Locate, Add and Note." (p. 191). This strategy is applied to help students analyze a text by creating a concept map or graphic organizers with the four stages. Furthermore, the material that people will find in this research will give sustainable information that can enlighten teachers and students.

This approach presents relevant data to avoid students' lack of knowledge about PLAN reading strategy and to develop critical thinking among sixth-grade students (*EGB*). Roe, Smith and Kolodziej (2018) stated that "Reading is a thinking Process. The act of recognizing words requires interpretation of graphic symbols... A person must be able to use the information to make inference and read critically..." Consequently, conducting PLAN reading strategy gives pupils the advantage of

changing data from a text into new information, boosting their critical thinking at a higher level. Therefore, this schema has a variety of activities and approaches that can be implemented to achieve that level. Students could play the past/present/future game, watch videos to predict, before-after activity, keywords, questioning activities, surveys, interviews, creating graphic organizers, thinking aloud, inferring, deducing meaning, and summarizing. As a result, all of these make an interactive class promotes students' participation and the learning process becomes more effective because it helps, and promote pupils accomplish tasks to achieve their goals by reading different texts, analyzing, building, sharing ideas and knowledge, working individually or in pairs during the course.

The current study will include some components of knowledge, abilities, and attitudes that belong to critical thinking. Students will reflect on experience and review ideas when evidence goes against their opinion. Also, they will be able to interpret information and obtain conclusions based on analysis to promote understanding and awaken curiosity. To do this, pupils develop specific tasks in each step of PLAN reading, such as Predict from pictures, titles, or short passages; Locate relevant information in the text by answering WH- questions (what, where, who, when and how); Add significant facts like main ideas and details from the text; Students note what they already know after reading to rehearse the information by discussions. Moreover, it is essential to ask questions about their thoughts, how they know that, and why. Thus, students will find reasons, explain arguments, and compare ideas with their classmates, and the teacher showing their way of thinking.

Finally, the structure of PLAN reading strategy supports teachers in improving students' deficiency in critical thinking. PLAN (Predict, Locate, Add and Note)

provide suitable resources to teach in each stage, where it must follow a logical order: before, during, and after reading. Thus, this strategy has succeeded, showing innovation, especially for students because pupils follow steps with different activities to enhance students' critical thinking.

1.3.Objectives.

1.3.1. General Objective.

To determine the results of applying the PLAN reading strategy to improve critical thinking through reading in EFL students.

1.3.2. Specific Objectives.

- To evaluate the level of students' progress on critical thinking before and after applying the PLAN reading strategy.
- To establish the process of PLAN reading strategy to improve critical thinking through reading.
- To adapt the activities that teachers apply to develop critical thinking through reading.

CHAPTER II

RESEARCH BACKGROUND

Critical thinking is one of the most complex skills to develop in EFL students. This is a common issue among learners and teachers because the lack knowledge about approaching this ability. However, Roda (2014) pointed out that critical thinking development and English improvement through reading and writing in learners of lower-intermediate EFL classes enhance their skills. The author emphasizes that reading is the best way to improve critical thinking. It also focuses on reading to develop this ability finding a close relation between language and Cognitivism. He also mentioned that through reading, pupils can process new knowledge and develop their critical thinking. That research supports this study because it demonstrates that students need to acquire cognitive processes during classes to have reasonable thoughts.

Mike, (2018) developed another research related on how to improve critical thinking, and he stated that promoting students to be active in class, is a good strategy to combine PLAN and reading to enhance their critical thinking. PLAN reading is a useful strategy to apply in classes because pupils learn how to read through interesting activities such as creating a concept map, which helps to arrange ideas about the text. Besides, it shows that this reading strategy positively impacted students' reading skills. Giving students and teachers the challenge to use a variety of activities to help pupils to grow their autonomy and reasoning while reading.

Another study by Hosseini, Khodaei et al. (2012) on critical thinking also determined that there is a relationship between critical thinking and the use of reading strategies leading students to show a good level of reading. The research pointed out how there is a positive impact between reading and critical thinking in EFL students. They could use the information they already know and reading strategies to develop their thinking. Also, the researcher uses cognitive and metacognitive strategies such as

questioning, thinking aloud, and roadmaps, which allow pupils to acquire these skills.

Reading strategies are necessary to advance EFL students' critical thinking.

The use of PLAN reading strategy in EFL classes efficiently achieves learners' outcomes. This is a flexible tool to be adapted to different levels. With this strategy, students showed positive results, such as motivation to read, developing cognitive abilities, and solving problems. Showing that the PLAN strategy is helpful in changing students' attitude during the learning process.

Radcliffe et al. (2004) investigated in a rural middle school. Students from seventh and eighth grade were exposed to the Plan Reading strategy for four weeks. Then nine months, the results suggested that this reading strategy helped students increase their background knowledge, point out headings and subheadings of reading, and, most importantly, paraphrase content, and have a higher order thinking. As noted in this study, the PLAN reading strategy was helpful for students to learn what they have in their textbooks. It also helped the teacher to modify this strategy to suit the classroom needs. The strategy develops students' prior knowledge and concepts to progress the reading activities presented in the textbook.

Another research that supports this study is proposed by Yousefi and Mohammadi, (2016). This investigation aims to show that the level of language proficiency of students does not have a direct relationship between reading and critical thinking. However, the use of appropriate strategies that help them to acquire this skill makes a huge difference. The outcome of having critical thinking reflects in students' academic abilities, especially reading. Learners need to assess what they read; this helps to create some conclusions and build their beliefs. Teachers have to promote critical thinking skills in their classroom through readings because nowadays, it is a primary academic skill in the learning process that needs to be developed.

According to Ramasari and Novtarina (2018), using the PLAN reading strategy will benefit students reading. The sampling was taken randomly, and learners took a test of multiple-choice questions, and the results confirmed that using this strategy during the teaching process is highly effective in developing reading skills. Those results displayed a significant difference among learners' scores in the subsequent test. After applying this strategy, they improved their ability to interpret information from a text and were able to Predict, Locate, Add and Note information from reading, resulting in an increase in their cognitive skills.

In a similar study, Zhou, Jiang, and Yao (2015) conducted a mixed-method study on a group of two thousand and twenty-four EFL students from a University in China. This researcher collected data through interviews and questionnaires, demonstrating that students are exposed to a foreign language but have low reading skills. And their critical thinking needed to be developed properly calling for the application of effective strategies for EFL reading classes.

Based on this, they pointed out that is essential to boost basic English abilities, enlarge vocabulary, use proper English reading texts, and enhance prior knowledge. It is advised that in EFL reading classes, teachers need to put more effort into raising students' awareness of their abilities. They are not only required to understand the text but also to think critically.

2.1 PLAN Reading Strategy.

2.1.1. Teaching Method.

To understand how teaching methods work and which ones are the best for this research, first, it is essential to mention that all these methods are based on theories

about language and its acquisition. Djuraevna, (2022) mentions that "Changing the education paradigm to a student-centred one entails a change in research methods." and constructivism is useful since it builds knowledge during the learning process. This method is mostly based on authentic-based experiences, which are part of developing different skills among students.

Constructivism was mainly attributed to Jean Piaget (1950) who talked about how children learn a new language through accommodation and assimilation. They construct their knowledge from their real-based environment and experience to embrace and incorporate it into their lives. This is applicable because when the teacher uses the PLAN reading strategy in the classroom, students construct their knowledge using mind maps. Vigotsky (1926) adds that if someone wants to learn a new language, they need social interaction. The PLAN reading strategy can achieve intellectual development, where learners construct and have a social exchange for promoting critical thinking and concepts about different topics.

Social interactions, especially in an educational context, are fundamental to expanding learners concepts. For that reason, the teacher principles should be based on the student's background and the type of classroom needs. According to Larsen, Freeman, and Anderson (2013), "Teachers must not only attempt to meet their student's learning needs, but they must also juggle other competing demands on their time and attention". It supports this study because, through reading strategies, students can improve other language skills, such as reasoning, thinking, and predicting, which are helpful to implement in real situations.

Methods like Inquiry-Based Learning and Cooperative learning should be mentioned because they effectively boost critical thinking. However, if the teacher wants to apply any of these methods, he must consider whether the activities involved a teacher or student-centered during the learning process.

Some categories within teaching methods focus on the teacher and the students. In the teacher-centered approach, the teacher is the prominent figure in the class and the one who guides the activities. In the PLAN reading strategy, there is no exception to give pupils an idea of how the tasks are developing. Serin (2018) stated, "In teacher-centered classrooms, the teacher is in charge of learning; therefore, he/she transmits knowledge to the students". This means that students must listen attentively to the teacher's instruction to develop all the activities appropriately to succeed in the class. The other category is student-centered. According to Emaliana (2017) "A student-centered classroom is a place where teachers consider the needs of the students, as a group and as individuals, and encourage them to participate in the learning process all the time," Thus, teachers become the instructor, only guiding students and directing them during the PLAN reading.

During this procedure, learners are expected to learn in cooperative groups, each one having an active role in the activities.

2.1.2 Cooperative Learning.

It allows students to share their ideas and new information while they learn. During the 80s, this approach presented relevant attention among learners because it replaced the traditional class that was always offered in education. Johnson and Johnson, (2018) pointed out that cooperative learning was created because through learning experience, students will ensure an active learning rather than passive. In the twenty-first century, its popularity grew. Since these sets of alternatives are

instructional-based, they create a dynamic class that allows students to work together with their strengths.

Cooperative learning is instructional-based. Thus, students work in small groups to exploit their potential and knowledge. For instance, in the PLAN reading strategy, it is advised that students work in groups at some point to share their thoughts and develop their critical thinking. When they cooperate, the goal is to connect and achieve what they need. According to Johnson and Johnson (2014) "When individuals cooperate, they work together to accomplish shared goals, and there is a mutual responsibility to work for one's own success." This is relevant when learners understand that even though they work together, each has to develop the activity. In addition, it is essential to consider how a cooperative learning structure can be implemented in the classroom.

Cooperative Learning Structures.

This approach can be implemented in any activity or class. Students are encouraged to be fully involved in all tasks the teacher assigns. Each learner must share their ideas to develop critical thinking. Moreover, at the end of the activity, they get a score for the team. This can be used a few times, but later, students have to be assessed individually to ensure responsibility in the group work.

Another way to use cooperative learning in the class is using projects, here, students can share their thoughts and efforts to meet one objective, and it is advised that they are graded individually for the same reasons stated before. Jacobs and Ivone, (2020) mentioned that "Providing students with opportunities for peer interaction is

considered best practice in classroom teaching" It is necessary to know how to implement these activities during the classes based on the students and teacher's roles.

Teachers have great control over students' communication in the classroom; they are the mediators of the activities. Teachers must know how and when to use CL in the classroom, to have a successful activity. They must consider elements that make this approach work, such as accountability, interaction, and social skills. Besides, pupils must know that their success depends on each group member. Therefore, they must show excellent interdependence to learn in the classroom. It is necessary to push students to use their social skills and inquiry in various topics to solve them effectively.

2.1.3 Inquiry-Based Learning.

The first philosopher that proposed this approach was John Dewy (1859-1952); he reformed the teaching system by introducing the IBL method in the USA to encourage student-centered education based on real-world context. This approach is mentioned because it provides some essential details that can be implemented during the class, mainly if educators use the PLAN reading strategy, in which students must inquire about the information. Here, teachers have an option, to use a new pedagogy in their curriculum. Therefore, the promoters of this initiative stated that teachers need to use students' real-life experience, which is one of the principles of IBL, and they need to investigate information, asking questions, and find new ideas logically.

Principles of IBL

This is a process where learning requires all the students engagement through the use of real-life experiences, and exploration of different topics. Pedaste et al. (2015) mentioned that "Inquiry-based learning aspires to engage students in an authentic scientific discovery process...divided into smaller, logically connected units that guide students and draw attention to important features of scientific thinking."

Therefore, this approach helps students arrange their ideas and experiences by discovering new knowledge in some scientific way, allowing them to acquire independent thinking.

This type of learning finds relevancy in students' questions, criteria, and analysis. They focused on open questions and judgment presented in the class; their answers must be based on evidence and research. Also, teachers are often moved to encourage students' curiosity to develop their critical thinking. Then pupils must always ask questions and be supported by their reading or investigation. IBL is connected with the PLAN reading strategy because it promotes some inquiry to find relevant data. In addition, all the activities presented in the class must be based on information-processing skills and developed through a theoretical context. Thus, the learner will always be the main part of the learning, and all the class resources have to support their acquisition through a series of processes in IBL.

Inquiry-Based Learning Process.

Orientation/Observation. Margunayasa et al. (2019) stated that "Students' engagement in student-centered science learning is indicated in some science activities, for example, in the processes of observing, analyzing data, discussing, and presenting the result of observation." Thus, the way students are oriented in the classroom to observe different scenarios allows them to link their real life experiences

with the world and get involved in other subjects. This is relevant because when students learn to observe, they can collect information, organize their ideas, and propose new solutions to problems in their world. By observing, they are challenged to use all their senses to get the bigger picture of a topic and compare it with others.

To develop observation skills, it is necessary to take into account some other abilities to enhance it, such as communication, which is one of the essential abilities that all students need to apply in the classroom and knowing how to interpret verbal or nor verbal language, which is crucial to perform in the learning process. Also, listening attentively to what the teacher or classmates say helps to understand the information better. Besides, this helps to grow emotional intelligence when students control their emotions and sympathize with others. In the classroom, this is important because students can relate with others, making it easier to work together, especially in groups. Recognizing how others feel about specific topics helps classmates to respond to them more consciously.

In addition, critical thinking makes students develop their cognitive thinking; they need to observe all their surroundings and gather information about it. Observing and analyzing all the context or information presented to pupils helps them to understand any topic or issue that is going on around them and develop specific solutions to those through abstract thinking. When they think abstractly, they pay attention to details, which is a productive ability. Therefore, learners need to observe to recognize all the small details presented in their environment to understand and incorporate them into their daily learning process in the classroom.

The Class Observation Phase.

In the observation phase, the topic used in the classroom must be engaging, calling learners' attention and curiosity. To start a class where observation must be applied, the teacher has to choose an object or topic to carry out. For example, when using the PLAN reading strategy, the teacher should ask students to look at the pictures of the reading and then ask simple questions about what students are observing. The use of scaffolding can do this. After that, the questions must be more complex, making pupils think deeper to answer those inquiries.

Scaffolding is a big part of teaching students' observation. According to Doo, Bonk and Heo (2020). "In particular, scaffolding can improve the quality of learning, including learning outcomes." However, to achieve this is relevant that students often need to support from their teachers to build their knowledge, which is why a teacher's guide is relevant through this process. Some educators wrongly think that scaffolding supports students entirely throughout the learning process. Instead, it gives their pupils the information. Still, if teachers aim to create an inquiry-based learning experience in the class, they do not have to tell learners what to observe but help them discover the knowledge themselves. The teacher's role is essential to establish students' work stages. This will stimulate them to participate actively, especially in real-life scenarios or applied subjects.

2.1.4 Teachers' role.

As mentioned before, the teacher's role is essential in developing observation skills with Inquiry-Based Learning. They can explore different characteristics of observation, such as discussion or by giving problems that require solutions. Applying observation in classroom activities is a complex process, primarily when educators must assess and monitor their pupils. That is why a teacher must help students to

develop these skills to gain a better thinking method and improve their learning. In addition, observation awakes curiosity through questioning; this allows students to expand their perspectives. Therefore, once learners acquire this ability, they will be accustomed to looking for information and adding more to their knowledge.

2.1.5 Questioning.

Asking questions has been an important activity throughout people's lives; how everything is questioned helps students have a bigger picture of any context. This is especially relevant in students' academic experiences; they must ask questions to learn. As the author Almeida (2012) stated "Asking questions is a key element in the learning process. Questioning helps students direct their learning as they try to merge their prior knowledge and new information to make sense of these ideas." This fact is agreeable because each student will always have questions, even if they understood the class. Questioning has significant relevance in the learning process and in students' motivation. When they ask questions, teachers can notice the way they think and how much they want to learn.

Moreover, if students have any gap in their understanding, they can fill that gap through questioning. When pupils develop these skills, they can think outside the box and start thinking critically. In this stage, students develop their critical thinking. Also, they need to be more open and confident to start questioning the information they may find. Pupils must trust this process, even though it is a little repetitive, mainly if the teacher uses closed or open-ended questions. Still, through them, students will acquire a higher understanding and thinking.

Closed-ended questions require a quick or small response like yes or no. Hildenbrand and Wiley (2021) stated that "Closed-ended tests such as multiplechoice true-false and often regarded tests are as rather superficial in the sense that they are thought to primarily rely on recognition processes". It means that they may seem less effective or important in the learning process, but they are quick to answer, so it helps students reduce misunderstandings, challenging them to remember facts about any topic. Teachers must be aware that using closed questions might make pupils feel stressed if they do not answer them correctly or try to guess the answer rather than analyze it. However, eventually, they will feel more comfortable answering the questions, even if they make mistakes.

Moreover, open-ended questions are essential in any teaching scenario; they help to develop critical thinking, which is the premise of this investigation. According to Lee, Kinzie, and Whittaker, (2012), "Open-ended questions are believed to be particularly useful for developing student's cognitive skills, as these questions can encourage students to express, and elaborate upon their thinking, and to provide rationales for their thoughts." Therefore, these types of questions often start with WH-, when educators use them, they have to be prepared to get any responses since they are so general. One crucial aspect of open-ended questions is that the teacher needs to give details of what they are asking or saying. This benefits students because they can explore different mental models, new ways to think and ideas, and develop their cognitive skills.

Questioning and Cognitive Development.

To develop cognitive skills in the classroom, the teacher must avoid lower-level questions that don't require analysis or interpretation. Despite mentioning that even close-ended questions can be beneficial, when the teacher wants to develop a student's cognitive skills, it is better to use complex questions. More detailed inquiries help students to think further about what they already know; this allows them to discover and increase their higher thinking. It is essential to consider Bloom's taxonomy structure of educational objectives to plan these complex questions. In the pyramid, he shows different stages of behavior in learning. They are classified into six cognitive levels of difficulty and cognitive thinking.

Bloom's Taxonomy Categories.

Forehand, (2017) stated the new terminology changes in Bloom's Taxonomy, in which he mentions different strategies to develop cognitive skills. **Remember**, this skill requires students to define, memorize, repeat, and list words to **understand** the information and explain concepts; they cannot only recite a word's definition but use it in examples. Thus, learners are ready to discuss different topics. Later, they will **apply** it to their learning process. Here students have to know how and when to use the knowledge they acquire and also demonstrate a higher understanding of different topics, including cognitive thinking. It is relevant to **analyze** everything that surrounds them. Consequently, students can link their ideas, compare, examine, and question the information. Therefore, pupils master their critical thinking.

When students are ready, they **evaluate** all the data provided by the teacher. Participants must be able to appraise different subjects, and information, to think abstractly, making assumptions or hypotheses about what they are learning. Thus, pupils can effectively give conclusions and ideas to **create** new knowledge through

their cognitive thinking. For these reasons, these levels are mentioned, because they share a deeper connection with the use of PLAN reading strategy to develop critical thinking, which is why they are important during acquiring knowledge.

Importance of Higher Cognitive Questions.

Using any questioning in the classroom provides the teacher with a powerful tool to help students understand information, according to Nappi (2017). "Questioning is an important component of the teaching/learning process and is embedded in quality instruction and strategic thinking. Questions are used to teach as well as to assess student understanding." This is a fact because using these questions, primarily openended, allows them to set beliefs and give new ideas to analyze during the learning process. Teachers must encourage students to think profoundly and critically to discuss in the classroom. In addition, it is essential to consider the three levels of Bloomy to develop these types of question's Taxonomy: analyze, evaluate, and create. Therefore, those questions provided to students must be an open, inquiry, and interpretative for learners, supporting some reading strategies.

2.1.6 Reading Strategies.

Reading is one of the most essential skills in education. When students know how to read, they enrich their understanding and open their minds to new perceptions on different topics. Thereby, using appropriate reading strategies in the class helps students improve this skill and acquire new knowledge to think critically, and become more independent learners. Once they learn how to use those, pupils can find a sense of what they read to make the most of it. According to Mitsea and Drigas, (2019) "Metacognitive strategies enhance learners' academic achievement, self-confidence

and raise self-awareness." Therefore, teachers must implement metacognitive strategies, mainly focused on learners' comprehension development, inferring, deducing, and organizing the information from a text.

Metacognitive Strategies.

This refers to students' knowledge about a topic and how, when, or where to use it during the classroom session. Students can control, summarize, revise, and evaluate information, which is why implementing these strategies help students to improve their learning.

In reading, these strategies help the learner to successfully comprehend the information presented, which is done by the reader's interactions and the text's context. All this knowledge that the pupils have is linked to experiences, culture, and beliefs that they had before. This ensures their acquisition is consciously or not.

Four main metacognitive strategies must be applied in the classroom: Think aloud, checklist, organizers, and rubrics. The teacher has to model these strategies, especially if he is trying to introduce PLAN reading to students. These strategies are used in the classroom to make students understand information, and thus they can develop a plan during their learning process to acquire knowledge. The longer they use them, the learners will become aware of their learning style and be more independent in this process. It is also advised to introduce some cognitive strategies to enhance their cognitive skills.

Cognitive Strategies.

The cognitive strategies are used to develop thinking abilities, helping students to be more strategic while they learn. Marzuki, Alim and Wekke, (2018) stated, "The implementation of the cognitive reading strategies in the instructional process allow the students to read the text individually and then in pairs prior to classroom teaching and learning." It means that they must be taught directly to students, so they can apply them while they read, and recognize which ones meet their needs to solve problems. Therefore, the use of cognitive strategies supports how students assume information and understand the message of any reading. All the facts they find through the task can be stored and used later on other subjects or discussions.

The way these strategies are applied in the classroom can shape students' learning process, getting success in developing reading skills. They come from their inner understanding until they self-learn and transfer ideas. Regarding this research, cognitive strategies, such as questioning, prediction, or organizing, share a connection with the PLAN reading strategy because students need to know them to read effectively.

2.1.7 PLAN Reading Strategy.

PLAN reading strategy was proposed by the authors Caverly, Mandeville, and Nicholson. This is because there were many weaknesses in textbook instruction, and educators needed to learn how to make students get the main idea or concept of reading. According to Rizqiana and Triastuti (2019) "This strategy presents a beneficial way to actualize students' ideas from a text by stimulating background knowledge and generating a mind mapping that enables the students to monitor their

comprehension and recognize the text more easily". Therefore, this strategy helps pupils to use mapping to identify specific information that is new to them. Thus, teachers can apply this strategy to encourage learners to use their prior knowledge and summarize what they read; it can be adapted to any context.

PLAN reading strategy uses graphic organizers for class instruction; learners can arrange their ideas logically about any text. Also, this strategy is enjoyable and easy to apply in the classroom. It allows reading, analyzing, and thinking critically about any topic. PLAN reading strategy has four steps that let learners Predict, Locate, Add, and Note information to share ideas or opinions critically of any reading.

Students predict everything they do daily, whether it is a class activity or what they are playing. Those decisions can determine the path they will walk in. This has the same impact on education, especially when students are learning to read. Readers use this skill to try to get the main idea of a text by guessing what it is about before reading it. Students can use headlines, themes, or titles to predict the text. Also they can use pictures or their prior knowledge of the topic. Once they read the text, learners' can still make predictions about the following chapters. Also, to apply prediction on reading, the teacher can use some metacognitive strategies, such as: think aloud or teacher modeling to help students to guess. When they learn to predict information, pupils can locate the details in the reading, learning to identify specific data as a vital part of the learning process. They can gain a deep understanding of what they are reading. During this stage, teachers have to ask students to place a mark or underline what they consider essential, so they can come back to remember or clarify that information. Therefore, this strategy can be used before or during the reading session to predict or highlight what is relevant for them.

During reading, students **add** new information to their repertoire. This is something that is done consciously or not. By doing so, pupils expand their knowledge and help to be more independent thinkers. In the classroom, when learners read a text, they will always find a new word or expression they do not know to add to their vocabulary. By adding, pupils grow the ideas, and concepts they previously had. Thus, at the end of the reading session, they will gather a well-sustained scheme of the text. Finally, after adding new information, students can **note** what is relevant to them that calls the student's attention. Later, it is helpful as a step to acquire or support knowledge. Besides, learners can use little notes or highlight sections to save time in organizing their ideas; it is a more creative way to learn. After recording these notes, students go back to them to study or remember important information. Developing this ability allows them to read better and use that knowledge in their real-life experience, which is the most relevant part of education.

The teacher's role is essential in this part because he is responsible for using cognitive strategies like summarizing or organizing to achieve the class goal.

Teachers and Students' Roles.

When the teacher implements the PLAN reading strategy in the classroom, he has to be aware that students might not know it. Hence, this strategy must be introduced slowly to get students accustomed to it. The educator must be the one who models how this strategy works, all the steps they have to follow, and its benefits. The framework that the teacher can give to pupils during this process must guide them to internalize the use of it. In addition, the tutor must teach students how to use maps since this strategy uses them to gather information from the text. Finally, one crucial teacher's role is to arouse students' prior knowledge and real-life experiences along with using

material that calls learners' attention; in this way they can relate more to the readings session and develop critical thinking.

Meanwhile, students must be guided to use the PLAN reading strategy, especially when they have to arrange their ideas using mind maps. Also, they must be familiar with metacognitive and cognitive strategies before implementing them to perform well in their reading tasks. Besides, learners have to activate their prior knowledge and think about their real-life experiences to bring out more perspectives into the classroom, they can work alone or in groups. In addition, discussion or thinking aloud is welcome in the teams to achieve their goals during reading. Thus, pupils have to feel eager to participate, and their motivation is a great part of their learning process because without that they won't be able to engage in the readings. Therefore, at the end of the instruction, they have to be able to use PLAN reading strategy with any subject that involves reading. This is the importance of using this strategy, which can be applied in any educational context besides EFL classes.

Importance of Using PLAN Reading Strategy.

Since reading is an active skill, using this strategy switches on that part of the learners' process. They take a significant part of their learning, interacting with the text. PLAN reading strategy uses all the things that come from their real-life background, which helps to develop their critical thinking. Moreover, it is essential to point out that using mind maps creates a visible part, which supports text construction, organization, and recognition of new ideas. Therefore, students are the ones who are responsible for how they apply the PLAN reading strategy in the classroom during their learning process.

2.2 Critical Thinking.

2.2.1. Learning Process.

Based on improvements in teaching-learning a new language from the late 80th century, some authors have new styles of teaching English. Those are centered on the learning process's relevance and the changes they could adapt to the rapid advance in curricula. None of this would be possible without the help of psychologist Skinner and the Linguist Noam Chomsky because they took different views of language. The first stated that teaching young children could be led by the exact mechanisms of shaping ways through repeated trials, errors, and rewards. On the other hand, Chomsky considered language complex to learn because children must have an innate predisposition to learn another language. Therefore, everything the teacher could implement in class will help acquire knowledge, and those adaptations play a significant role during the learning process.

It is important to mention that through the years, education has improved in innovation, resources, perception, knowledge, and engagement. According to Mitchell, et al (2018) "It is successfully learning to improve its reading competence over time, and is using this increasing competence" This is observable in two aspects: innovation and knowledge. Both are related to improving the learning process, whereas the main aim is to develop competences. It occurs when the student processes new data on any topic by reading to acquire knowledge and thus develop thinking abilities. However, not only should these factors be taken into account, there are some principles that pupils and educators need to consider during the learning process to facilitate learning.

Principles of learning.

Participation. Educators must encourage learners to be active in class. Thus, all the senses will have a quick response to solve a problem, and it could be by sharing ideas.

Repetition. To achieve learners' goals, they must practice the content taught. Thus, pupils can train, perform their understanding, and improve their skills.

Relevance. Most of the time, professionals focus only on the content rather than solving a problem in class. They should make the content meaningful for them, which is also relevant to motivate people to learn.

Feedback. This is necessary to help and improve their understanding by correcting mistakes. However, more is needed; professionals must give reinforcement for learning.

Therefore, the learning process is the basis for getting success in classes. It demonstrates how vital all the aspects and principles are to have a good understanding. They focus on how pupils acquire and show precise results of their improvement in the language.

2.2.2 Cognitivism.

According to Muhajirah (2020), "Cognitivism relates to the way humans think in gaining knowledge, processing impressions that enter through the senses, solving problems, digging up memories of expertise, and work procedures needed in everyday life." Therefore, learning is a process where students connect information, making it meaningful and memorable. Also, Rhodes (2019) stated that "It refers to a set of

processes an individual uses in monitoring ongoing cognition effectively control his or her own behavior". In other words, Cognitivism is the ability to manage our thinking process, organizing, adapting, retaining, absorbing, and reflecting on new information; it helps learners to maximize their knowledge. In addition, it is essential to know that through mental processes, educators can engage learners to think. They can be influenced by external and internal factors such as senses, experience, and thought.

Those elements take place in the learning process to acquire, think, understand, and connect the information to develop critical thinking. For example, language needs to recall memories and early experiences in different situations. By doing this, the learning task will continue to boost logical thinking. According to Dindar et al. (2020), "Metacognitive experiences are the feelings and judgments that emerge to an ongoing learning task. Much of the work on metacognitive experiences has studied these constructs piecemeal and mostly in individual learning settings." Thus, students will understand what they are learning and will be able to share their personal opinion based on their experiences. In addition, it is helpful to boost students' autonomous learning because they have to think about what they think, getting much improvement in their language skills.

Cognitive.

This research is essential to state data about cognition because it focuses on reflection to connect prior and new knowledge. They facilitate and make it easier to retain information and enhance learning. Moreover, last and further knowledge help to have more confidence in students and tasks. Thus they can develop comprehension of new topics. In addition, cognitive learning assists students in learning how to solve

problems, advancing their creativity, and interpreting information from a text. Thus, teachers will encourage learners to progress their abstract thinking through reading. To achieve this, it is necessary to apply some cognitive strategies to facilitate students' acquisition. Obergriesser and Stoeger (2020) support this study because, in their work, they stated that "Cognitive learning strategies support the learner in processing information during direct interaction with the learning material." Those strategies are asking questions because they allow verifying a student's understanding and level of critical thinking; making mistakes. After all, pupils will have the chance to reflect on their errors and learn by correcting them; thinking aloud, students will share their opinions, suggestions, or doubts about something in group work. Thus, they will allow them to work out problems.

There are three components of cognitive learning: attention, memory, and comprehension. Apart from these components, critical thinking is another subcomponent that plays a vital role in the learning process.

Components of cognitive learning.

Attention. It is the first step in learning EFL, pupils must pay attention to relevant things in the language, and this is not easy because not all are exciting to learners. Most of the time, they become distracted, and the teacher has to find an appropriate way to engage students. Applying the PLAN reading strategy, the teachers try to avoid students' distractions through different mechanisms and activities presented in each stage. Thus, educators can help them "wake up" a curious mind. According to Posner et al. (2014) "It is our hope that this improved understanding may illuminate the mechanisms involved in the achievement of high levels of skill needed in learning many areas studied in school." Therefore, teachers' job is not only to

motivate students. They must get their attention during the learning process by developing different activities presented in the Plan reading.

Memory. It helps students in school to use, store and recover information. For these reasons, educators must stimulate students' prior knowledge, making information meaningful. Authors like Klein and Stanley (2015) stated that "Memory is a special mode of experiencing—one that provides the experiencer with a phenomenological relation to his or her past that cannot be conferred by non-memorial mental states". Thus, to complete an activity where reasoning is necessary, pupils should use their experience to achieve it. Remember that students will benefit from relating experience to make predictions, even if there are learners' difficulties. Therefore, educators should prepare clear directions for them, they could be orally or written, to identify relevant information through questions and answers.

Comprehension. Allows students to understand the reason for different contexts. With decoding and awareness, asking students to develop an activity through reading is easier. It is essential to mention that besides using these components, cognitive learning strategies are necessary to acquire cognitive thinking. For that reason, pupils should have a well-structured vocabulary block to become good readers. This ability must be developed since students are young because it is easier for them to acquire new knowledge at that age.

2.2.3 Cognitive Learning Strategies.

Jean Piaget is well-known for their research in cognitive psychology, where experience and prior knowledge are essential to relate the information for learning. However, some other facts help students, such as: encouraging them to discuss any

topic in class and guiding, and supporting learners to explore new information to connect and understand a subject. Ensure they have critical thinking, can solve problems, and reflect on their experience. Wang and Zhenlin (2015) stated that "Education should provide children with opportunities for supported exploration and experimentation, intentional demonstration and instruction, as well as guided discovery." Thus, students will use creativity to combine those strategies to get great results during each stage of the PLAN reading. Other authors support these facts. Riding and Rayner, (2013) stated that there are two aspects to consider in this study "first, cognitive style, which reflects the way in which the individual person thinks; second, learning strategy, which reflects those processes which are used by the learner to respond to the demands of a learning activity." Therefore, these aspects support the idea of applying a variety of strategies to provide learners with more opportunities to improve their reading and critical thinking in EFL performance.

2.2.4 Cognitive Functions.

In a study carried out by Nouchi et al. (2014), they emphasize the intellectual process where students become aware, conscious, and understand ideas, which involves the ability to think. Also, they stated that "Cognitive function includes a variety of mental processes such as perception, attention, memory, decision-making, and language comprehension." Therefore, those functions are essential to enhance students' reasoning and thinking because they are part of our lifetime.

Reasoning, for example, determines how students understand, assess, and claim facts by sharing their opinions. Those different points of view are crucial to generating knowledge and developing thinking. Biehler, et al. (2018) stated, "Reasoning about data is a fundamental human activity; its components can be found

in nearly every profession and in most school curricula in the world" Thus, the aim is to help students to develop their abstract thinking through different activities. In addition, it concerns processes to give conclusions about meaningful information understood during each stage of the PLAN. Therefore, those processes are challenging, and to obtain good results, it is necessary to reflect on the core pattern of reasoning: deduction and induction.

Deduction refers to the rapid inference of some information from the reading text. According to Rahmy Zulmaulida (2018) deduction is the critical component that students have to define a conclusion which should be taken from the information they find in a text. In other words, pupils need to deduce relevant information from the text and be objective to have a valid conclusion, idea, or understanding of any topic.

In a similar study, Hayes and Heit. (2017) stated that "Inductive reasoning involves making predictions about novel objects or situations based on existing knowledge. These predictions are necessarily probabilistic." Thus, they consider that induction deals with logical thinking activities to state conclusions from specific to general information. Besides, it involves reasoning about daily situations, such as making predictions of existing knowledge.

Thinking. Mental behavior allows forming of images, thoughts, and ideas which are understood through experience. Thus, the ability to think depends on how our brain processes information to make decisions, give opinions logically or create new thoughts. To clarify these facts, there are some different types of thinking, and they could be classified as follows:

Creative thinking. It is the ability to innovate or construct thoughts from a text. It allows interpreting the nature of things associated with different situations

presented in a reading. Skinner defined it as a cognitive ability that a person has to make predictions and inferences about any reading passage through ingenious and unusual ideas. Some features of creative thinking are:

- This mental process is a fundamental component of people's cognitive behavior.
- Everybody can think creatively.
- Creative thinking is diverse.

Abstract Thinking. It is the ability to relate things or concepts to understand the information presented in a reading. Thinking in this manner helps students to form thoughts about hidden meanings, which allows them to observe and realize new possibilities. Therefore, this is one of the most complex way of thinking.

- It involves a variety of metaphors and analogies.
- It understands verbal and nonverbal ideas.
- Spatial reasoning.
- It is useful to exercise creativity.

However, Jean Piaget stated that it starts developing between the ages of 11 and 16, and in some cases, it could be presented earlier because of the culture, experience, and teaching. For example, most children's lectures have abstract and concrete thinking in the stories. Thus, students develop reasoning from an earlier age with the teacher's support.

Concrete Thinking, on the other hand, is the ability to understand situations by perceiving and interpreting the information caught from the reading. In other words, it is about thinking of specific items rather than abstract context. For example, Children take words literally while they are reading, and in this way is how kids learn something. According to Tuch (2011) "The concrete thinker tends to be literal-minded. He prefers

to stick as closely as possible to the narrow meanings denoted by words..." Thus, young learners believe in things they can see, feel and manipulate. According to Jean Piaget, young children must pass through relevant cognitive process stages to learn abstract thinking. Therefore, pupils, from the earliest moments, are learning through their senses. As they grow from 2 to 7, they begin to develop their reasoning and prediction. Also, he mentioned that the beginning of abstract thinking takes place in elementary school because pupils gradually develop their ability to analyze situations, combining concrete and abstract thinking to prevent some issues in adolescence. At this age, learners can use personal experiences to predict, locate, add, and note relevant information about any topic and thus start thinking critically.

2.2.5 Critical Thinking.

This type of thinking has great acceptance in the educational field. However, thinking critically takes work to develop during the learning process. It must be applied from earlier ages to help students to achieve higher cognitive abilities. Utami (2018) mentioned that "The critical thinking skills were defined as the skills to give important questions and issues, formulates them clearly and properly, collects and assesses relevant information... recognizing and assessing their needs, assumptions, implications." These skills construct this type of thinking.

Furthermore, it is essential to have background knowledge of a given topic. For this purpose, the main goal of this research is to enhance critical thinking to acquire knowledge, and develop reading abilities during this process. The best way to explain this is through different stages.

First, learners must criticize their thoughts or actions. It is only possible to achieve success with self-reflection. Pupils must ask themselves why they do things because, in this way, they might clarify their ideas. Thus, children can assess new information to find logic instead of state muddle ideas. Second, it is necessary to be able to listen to others' ideas to develop their critical thinking. Thus, pupils will catch information someone is sharing in the class, feeling empathy with others' emotions. Third, analyzing that information will help form better arguments to support successful critical thinking. Currently, students need the motivation to think critically in class, and the best way to encourage them is in that way, where they must analyze the information shared by others. Thus, they will be able to infer the importance of their ideas and identify errors in reasoning. In the next stage, once learners have analyzed the information logically, students can share with their classmates, productively (speaking and writing). This basis of communication is helpful, because when learners observe and listen to different arguments, they can detach their emotions from the ideas, making them focus on solving the situation rather than judge different opinions. Another stage is the ability to predict or reflect on the impact of future decisions. Each possibility should be appraised to see how the option affects every side of the story.

Furthermore, thinking through different options can reveal functional data, which can help us to avoid making unwise decisions. Finally, the last stage is asking questions. They are helpful to discuss in the classroom because all the participants can exchange their points of view and thus learn more. It is the best way to develop critical thinking and learn something during this process.

Can critical thinking ability be tested?

Some validated tests quantify critical thinking and can be quantitative and qualitative. Its purpose is to improve students' ability to think through different content provided in the class. However, there are other options, such as building a rubric, creating a test, or adapting one. As pupils have deficient thinking skills, and it is hard for them to break down an issue to find a solution, to promote critical thinking and test them, the teacher can use all the students' answers from the tasks presented in the classroom. Thus, the instructor can help children to boost critical thinking and assess their knowledge.

Besides that information, it is important to state other aspects required to assess critical reasoning.

According to Siswono, T (2020) Deductive reasoning it is a distinctive process where conclusions are taken from information already that is presented and logical rules. Thus, when students make deductions, there will always be a conclusion based on any kind of information provided in the reading text, and not based on student background knowledge. In the classroom, learners will be provided with a passage to be evaluated and give conclusions. Also, this author pointed out that making inferences from actions perceived in reading hypothetical information should provide a logical conclusion. In other words, some information is not directly presented in the passages but can be concluded logically by assuming what it is about. Finally, Willing, (2014) points out the importance of interpreting information. In simple words, he stated that "Interpretation is a response to the question 'what does this mean?" This makes sense because this study shows how students must deal with a short passage with many facts to analyze to interpret the info and find logical conclusions to that question.

How to adapt or create an assessment instrument?

A sufficient basis for developing a tool to assess critical thinking is by asking three questions (how, what, why?) of the data taken from the reading. These inquiries help create the pretest and post-test to collect information for this study. Besides, it is relevant to show accuracy when students interpret some statements, questions, or literary elements; it demonstrates that the instrument is valid. Therefore, a test or an activity determines the interpretation required of relevant information taken from a passage, and thus the assessment is well-founded. Another study by Hitchcock, D. (2018) highlights that "A more direct way of assessing critical thinking dispositions would be to see what people do when put in a situation where the dispositions would reveal themselves." This supports this research because there are more direct ways of testing students' critical thinking, and it is through observation. See what pupils do when they have to think logically, and provide evidence from their work. In this way, it is easier to measure students' abilities. For example, there is a standardized test, such as the test on appraising Observation, created by Norris and King, which focuses on determining specific context. This test is measured through different multiple-choice questions, to see the level of the interpretations. Thus, participants have clues to judge and justify them. By choosing the best option, students will get good scores on the test, meaning an improvement in their critical thinking abilities.

Critical thinking abilities.

In the learning process, it is important to know concepts and principles, but it must be connected to critical thinking, to performance in the classroom. The skills should have critical thinking and must be based on knowledge, inquiry, and reasoning. The teacher has to guide his pupils to achieve these abilities. That is why it is important to develop some aptitudes to do well in the critical thinking process.

In the classroom, observation is the ability that gives students the capacity to notice what is around them, which goes beyond their eyes. Jamie DeQuinzo (2018) stated that "Observational learning is influenced by generalized imitation, stimulus generalization, and acquisition of relevant conditional discriminations." This is relevant to point out because it is easy for students to develop their critical thinking with observation. When they use it, they can pick up information that may be relevant to them that maybe no one notices. Moreover, it is helpful to practice, and consider issues that may be unreliable, information that does not make sense, or lack background. Furthermore, they have to judge what others observe, filter those ideas for their benefit, and give credibility to what has been discussed in the classroom.

To make sure critical thinking is applied in the classroom, it is necessary to use questioning during the class mainly when PLAN reading strategy is applied. Almeida, P. A. (2012) noted, "Students' questions play an important role in meaningful learning and motivation, and can be very revealing about the quality of students' thinking and conceptual understanding." This is applicable in this research, because while they use the reading strategy, they have to question the information presented. The teacher has to give a problem that causes confusion that makes learners question that. All those questions need to be second-guessed and not be assumed to generate many ideas toward a solution. Thus, to give answers to any issue is important to use imagination, these require students to use their background knowledge too. Imagination allows them to create various scenarios to find an explanation or consequences; these alternatives help to cultivate awareness.

Finally, critical thinking can be represented by the way one can give conclusions about any information that was inferred. Students should be able to gather

other classmates' opinions or emotions to construct their own arguments. This is especially emphasized because, during the PLAN reading strategy, students need to deduce information through their background knowledge and facts they find in a text.

CHAPTER III

METHODOLOGY

3.1 Location.

The present research took place in a private school located in the town of Ambato at the Tungurahua province. The participants were 36 students, 18 pupils in the control group and 18 in the experimental group; all were around ten and eleven years old. They come from middle and high-income families, and they are in the sixth grade of primary education, with the same level of English knowledge.

Additionally, these students were selected because of their level of education; since they are in sixth grade, most of them can use the four skills in English. For example: they can read some passages or short stories, using skimming and scanning strategies to identify some information. Also, they can listen carefully teacher's instructions to complete an activity during the learning process. Moreover, pupils can speak and write short sentences to share their ideas with the whole class, which is really questions. Besides that, learners still are developing their reading and critical abilities. For this reason, this investigation aims to apply the PLAN reading strategy to improve student's critical thinking by reading short stories.

3.2 Material and equipment.

In this investigation a pre and a post-test were used during this study from two different groups of learners. The pre-test was apply at the beginning of this research without any prompt to learners. Meanwhile, the post-test were apply after with the proper prompt. The main goal of it was to measure the dependent variable in this research, where pupils have to show their level of critical thinking by reading a short passage.

The tests previously mentioned was created to measure learners' critical thinking. To achieve it, first, the teacher had to look for information about evaluating critical thinking, and the best way is through WH questions (what, where, who, when, how, and which). Then a questionnaire was prepared, and the test was divided into three sections: Interpretation, Deduction and Inference, which are essential features to measure critical thinking, all of them with multiple choice questions. The aim is to measure if learners can give reasonable predictions, to identify logical conclusions implied in reading, and finally see how pupils make inferences with clarity, using stated, and implicit information from the text, or from their experience.

The pre-test and post-test are focus on measuring students' ideas with clarity and correctly identifying thoughts. Thus, the main purpose of this test was to assess the student's critical thinking. When the investigation finished, a questionnaire was applied to measure students' thoughts on the previously presented activities. All this process helps the investigator to determine if there is a close relationship between the uses of PLAN reading strategy to develop critical thinking in the English classroom.

Regarding the equipment, a laptop, Wi-Fi, and a printer were mainly used during this study. Some reading passages were chosen from the student's textbook for the pre and post-tests. These readings were based on learners' interests in science, history, and sci-fi.

3.3 Research Method.

This research has a quantitative approach because it requires collecting, analyzing, and interpreting results to see if there is a relationship between variables. Creswell, 2015 stated that "By explaining a relation among variables, you are interested in determining whether one or more variables might influence another variable" This makes sense to this study because by analyzing results, the researcher seeks to provide helpful information to see how the problem affect their learning development. Therefore, first, the investigator has to select an appropriate instrument to measure the variable containing specific questions and thus administer it to participants. Consequently, this proposal has the type of research, and the procedure of research, explained in the following description.

This study was applied by using quantitative research; the main objective was to evaluate the level of students' progress on critical thinking before and after applying the PLAN reading strategy. As soon as data were collected, an inquiry was conducted using the statistical software IBM SPSS 25. Quantitative research requires measuring the case under investigation, analyzing information to find any tendency, and a relationship among the variables. (Watson Roger, 2015)

Quasi-Experimental Design

Two groups of students were chosen, both with the same level of English and age; this is because Quasi-Experimental Design does not have a random assignment. According to Creswell (2015) "The investigator does not randomly assign participants to group, the potential threats of maturation, selection, mortality, and the interaction of selection with other treats are possibilities" p.311. Thus, it will provide useful information to weigh critical thinking, getting an advantage of utilizing existing groups to achieve accurate results. To accomplish this, first, the examiner administrates the pre-test to both groups, control and experimental, where students do not have any preparation to take the test. Then only the experimental group has a treatment before taking the post-test, and the researcher assess the difference between the groups.

Exploratory

This investigation is exploratory level, because it mainly explores the research questions: Which is the level of students' progress on critical thinking before and after applying the PLAN reading strategy? What is the process of PLAN reading strategy to improve critical thinking through reading? Which activities should the teacher use to develop critical thinking through reading? According to Rahi, S. (2017) "The purpose of exploratory research is to seek new insights and find out what is happening. There is an attempt to ask questions and assess phenomena in a new light." It manages to study a problem that has not been clearly identified yet. To apply this research, the investigator has to go through the reports collected from students to check those. Moreover, he reads as much as possible about the variables (Plan reading strategies

and critical thinking). Then, the researchers went over the students' level of their reading during the class period. In addition, their books and class material had to be reviewed to know what type of instruction they received. It was essential to analyze the learners' environment and the English class curricula to understand how it influences them. Finally, the investigator chooses which techniques to apply in the research to collect data. Here the pre-test and post-test were used, that is why this is exploratory because the results were straightforwardly reviewed in the pretest.

Descriptive

According to Siedlecki, S. L. (2020) type of research helps to give relevant information about the population being investigated. It tries to explain what is usual in the population. The descriptive method does not intend to change the outcome; it just focuses on answering questions. This research was conducted to determine the influence that Plan reading strategy has on Critical Thinking in students using the pre and post-test. It was essential to prove or not the hypothesis stated. This study will also help plan a didactic guide to support teachers in having an innovative strategy to teach reading and develop critical thinking in pupils. The present investigation is descriptive because the inquirer follows some steps to analyze the problem, choose the correct bibliography, collect the data, work on the variables and confirm the pre-test and post-test to interpret the results.

3.4 Hypothesis

3.4.1 Null hypothesis.

The PLAN reading strategy does not improve critical thinking.

3.4.2 Alternative hypothesis.

The PLAN reading strategy improves critical thinking.

3.4.3 Research questions.

- Which is the level of students' progress on critical thinking before and after applying the PLAN reading strategy?
- To what extent does PLAN reading strategy improve critical thinking in reading?
- Which activities should the teacher apply to develop critical thinking through reading?

3.5. Population and Sample.

The context of this research makes emphasis on teaching a foreign language. It is important to strengthen the linguistic competencies of English in students because it is necessary to improve their critical thinking through reading to avoid future problems at higher levels.

For that reason, all the students in 6th *EGB* were selected for this study; they have the same English level, which was analyzed during classes through quizzes, lessons, and evidences presented during classes. Besides this, the participants share the same book, age, curricula program, and classroom environment. Therefore, the examiner made an intentional selection (convenience sampling) of both courses (A-B). Thus, one class of 18 students (A) corresponds to the control group, and the second class of 18 students (B) to the experimental.

Table 1. Population.

CLASS	MEN	%	WOMEN	%	TOTAL	
A	10	55.6	8	44.4	18	Control group
В	11	61.1	7	38.9	18	Experimental group

Prepared by: López, M (2022)

3.6 Data Collection.

For this study, the researcher first checked some questions based on the Watson and Glaser critical thinking model. It has different sections designed to identify how good the participant is thinking logically. Interpretation, deduction, and inference were the most relevant sections of this research. Considering this relevant information, the educator developed an instrument to measure the dependent variable.

Establishing an instrument takes a long process because it involves some steps, such as detecting the instrument's primary purpose, checking the literature, writing questions, and testing the questions to other similar students from the investigation. In the planning stage, the examiner states the purpose, which measures critical thinking. Also, identify and define the domain related to the three aspects of thinking logically (interpretation, deduction, and inference). When all of this was done, the researcher provided some open-ended questions to interpret that information and thus wrote the instrument's objectives. Then in the construction stage, the researcher developed a table of specifications, which were judged by other teachers to validate the items. In the next phase, the pilot instruments were administered to other students with the same features to calculate the reliability.

Finally, a new pilot test was administrated for validation data. Thus, the researcher could measure students' aptitudes using an appropriate instrument to conduct and

compare both pre and post-test to collect essential information related to this investigation.

3.7 Data processing and statistical analysis

To study the data results, a quasi-experimental was applied to know student's degrees in critical thinking through some reading activities. This was followed by a validation analysis of the activities to identify the relationship between each variable. Its impact on the development of critical thinking at the school, to guarantee accuracy in the treatment of the data obtained, and the instrument's reliability.

3.8. Response variables or results.

Independent variable: PLAN Reading strategy.

The PLAN reading is a strategy that helps students read more easily by following steps such as: Predict, Locate, Add, and Note. In such a manner, they do not only will understand what they are reading, but pupils will be able to get the main idea of the passages and share their thoughts about them.

Dependent variable: Critical thinking skills.

Critical thinking is one of the essential skills that students should develop in the classroom. With this ability, they are open to share their ideas, and when they face real-life experiences and problems, they will be ready to solve them. Critical thinking gives students a sense of independence and freedom to determine what is relevant for them in both educational and personal fields. When they are learning, students need to make logical deductions, inferences, and interpretations of all the information given in the classroom to make this process meaningful. Finally, we can say that critical

thinking stimulates learners' creativity and curiosity side being a front line of learning development.

CHAPTER IV

RESULTS AND DISCUSSIONS

Bearing that students who participated in this investigation have a level of English (A1+), the pre- and post-test were used for the experimental and the control groups. The goal of using them was to determine students' initial level of critical thinking and then identify in the post-test how they improved this skill as a result of this experiment. Therefore, the main objective was to prove the effectiveness of applying the PLAN reading strategy to improve critical thinking thorough reading.

Pre-test

Generally, students have low English (A1+) level, which is more evident when they start their formation in high school. For that reason, students must have good foundations from the school. It means that teachers have to support their pupils with actual content which helps them to confront future problems.

This study involves participants with low level of critical thinking, and that is why this test was applied to prove those weaknesses through different WH questions taken from a reading passage. Therefore, those inquiries and pupils' answers provide information about their level of critical thinking. Also, is important to mention that the test was divided into three sections: one with four questions based on interpretation, the second part about deduction with three questions, and finally, the last part was about interference, with three questions. These sections measure the reasoning. Moreover, it needs to be mentioned that there are four different items to choose in each question. Thus, the total score for this test is 10 points. The results of the pre-test are presented in table 2 and Graphic 1.

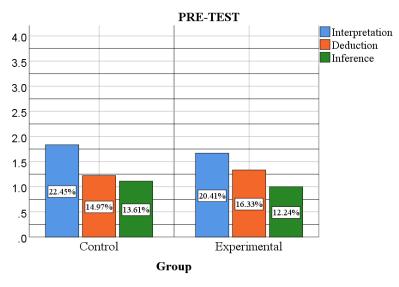
Table 2: Pre-test Results_ Control and Experimental groups.

	CONTROL GROUP			EXPERIMENTAL GROUP			
	M	DE.	%	M	DE.	%	Desirable score
Interpretation	1.83	1.200	22.45%	1.67	.485	20.41%	4
Deduction	1.22	.943	14.97%	1.33	.907	16.33%	3
Inference	1.11	.758	13.61%	1.00	.594	12.24%	3
Total	4.11	2.901	50.68%	4	1.986	49.32%	10

Source: Pre- test scores - Control and Experimental Group.

Author: López, M (2022)

Table 2 shows that in the three sections, interpretation, deduction and inference questions, the control and experimental group do not demonstrate important differences. The mean score of the control group is 4.11, and the experimental group is 4. Therefore, this reveals that both groups start with the same level of abilities in this research.



Graphic 1: Pre-test Results. **Author:** López, M (2022)

All sections demonstrate low levels in the control and experimental group. It is relevant to highlight that none of the sections scored more than 50.68% of the expected score.

Consequently, there is clear evidence of the limited level of English that students from 6th grade had before the intervention.

Table 3: Pre-test results: t-test for independent samples; p: significance

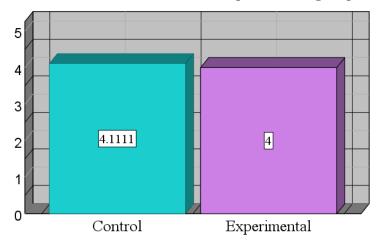
	CONTROL GROUP		EXPERIMENT	'AL GROUP	Contrast	
	M	DE.	M	DE.	t	р
Total	4.11	1.641	4.00	.907	.251	.803
10001		1.011		.507	.231	.002

Source: Control and Experimental: t-test for independent samples; p: significance.

Author: López, M (2022)

Table 3 demonstrates that the main scores achieved in the pretest in the overall evaluation by control and experimental groups show similar results without ample variation. The contrast test does not reveal the presence of significant differences ($\mathbf{p} > 0.05$) between the control and the experimental groups during the pre-test.

Pre-test Control and Experimental group



Graphic 2: Pre-test Results - Control and Experimental groups.

Author: López, M (2022)

Post-test

The proposal has the same three sections to improve, interpretation, deduction, and inference. This intervention had six sessions per week, where students worked in the face-to-face classes. The teacher provided students with useful information about

the process of PLAN reading strategy through some samples focused on students' needs.

On the other hand, students from the control group continued with normal classes where they used their reading books in the classroom.

After one week of applying PLAN reading strategy to the experimental group, students took the test with the same three sections to compare means. The researcher ran the t-test to analyze if there was a relevant difference between the control and the experimental groups. The result is in the tables and graphics.

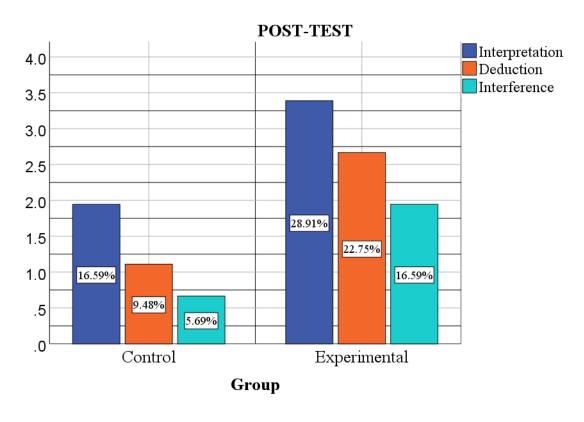
 Table 4: Post-test Results - Control and Experimental groups.

	CONT	CONTROL GROUP			IMENTAL C		
	M	DE.	%	M	DE.	%	Desirable score
Interpretation	1.94	.725	16.59%	3.39	.916	28.91%	4
Deduction	1.11	.676	9.48%	2.67	.686	22.75%	3
Inference	.67	.594	5.69%	1.94	.639	16.59%	3
Total	3.61	1.092	31.10%	8	2.000	68.90%	10

Source: Post- test scores - Control and Experimental Group.

Author: López, M (2022)

Table 4 demonstrates that the experimental group has an improvement in all sections of critical thinking after one week of intervention. Nevertheless, those results do not achieve the 100% of the desired score. In total, 68.90% of growth shows how PLAN reading strategy helps to improve critical thinking through reading in students of sixth grade.



Graphic 3: Post-test Results. **Author:** López, M (2022)

Table 5: Post-test results: t-test for independent samples; p: significance

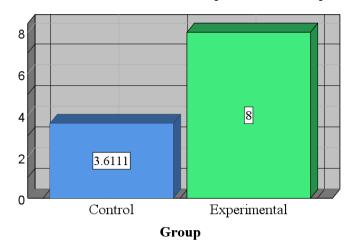
	CONTROL G	ROUP	EXPERIMENTAL GROUP		Contrast	
	M	DE.	M	DE.	t	p
Total	3.61	1.092	8.00	2.000	-8.171	.000

Source: Control and Experimental: t-test for independent samples; p: significance.

Author: López, M (2022)

Table 5, demonstrates that the main scores achieved in the post-test in the overall evaluation by the control (3.61) and experimental group (8.00) show different results with a great variation. Therefore, the contrast test reveals a significant difference (p < .05) between the control and experimental groups during the post-test. Thus, the null hypothesis is rejected, and the alternative hypothesis is accepted.

Post- test Control and Experimental Group



Graphic 4: Post-test Results - Control and Experimental groups.

Author: López, M (2022)

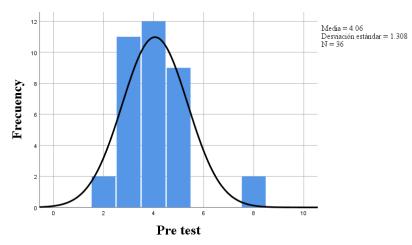
Table 6. Test of normality of data.

Test of normality of data								
	Kolmogorov	-Smirnov ^a		Shapiro-Wilk				
	Estadístico	gl	Sig.	Estadístico	gl	Sig.		
Pre test	.211	36	.000	.837	36	.000		
Post test	.206	36	.001	.838	36	.000		

Source: Test of normality of data.

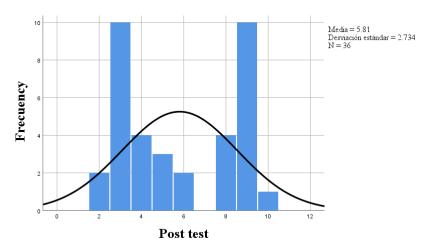
Author: López, M (2022)

Table 6 shows two tests to prove normality. However, it is worth mentioning that if the sample (36) is greater than > 50, Kolnogorov-Smirnov test is used, but this is not the case because 36 is less than 50. On the other hand, if the sample (36) is less than or equal < = 50, the Shapiro-Wilk test (36< = 50) needs to be used. This test proves that the two-tailed significance is **0.000**, and this is less than < **0.05**; thus, it can be inferred that data from pre and posttest is not normally distributed (see graphic 4 and 5). Consequently, these results sum up that participants from the posttest developed more critical thinking than the pretest students, and it is because of the use of PLAN reading strategy.



Graphic 5: Pre-test – Curve of normality

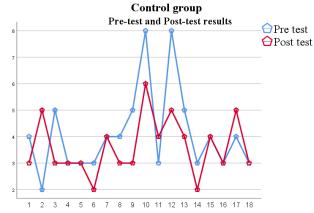
Author: López, M (2022)



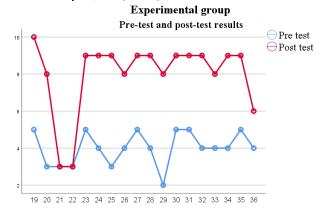
Graphic 6: Post-test – Curve of normality

Author: López, M (2022)

The following graphics (7 and 8) clearly contrast the pre-test and post-test in the control and experimental groups. The control group results show that there needed to be more relevant development between the pretest and the post-test among 18 participants. This means that the current reading strategies applied in classes do not have an important impact on improving students' critical thinking. On the other hand, the experimental group data present a significant increase between the pretest and posttest. These participants develop their critical thinking as a result of using the PLAN reading strategy.



Graphic 7: Control group. **Author:** López, M (2022)



Graphic 8: Experimental group.

Author: López, M (2022)

As a result, the U of the Mann Whitney test is applied to get the following results.

Table 7: Mann-Whitney testRanges

	Group	N	Average Range	Sum of ranks
Pre test	Control	18	17.56	316.00
	Experimental	18	19.44	350.00
	Total	36		
Post test	Control	18	10.86	195.50
	Experimental	18	26.14	470.50
	Total	36		

Source: U of Mann-Whitney test.

Author: López, M (2022)

Those results demonstrate that in the experimental group, the pre-test mean is 19.44, and in the post-test is 26.14, which is higher. This indicates that the results are positive

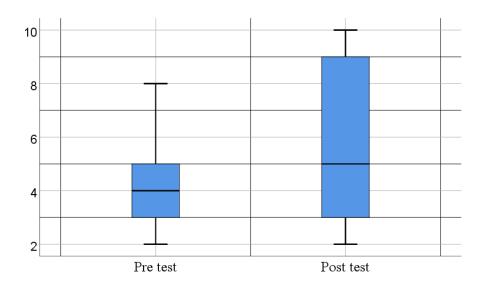
in the intervention. (See table 7). Besides this data, The Wilcoxon test was applied for two related samples to provide the parameters for the general hypothesis, demonstrating the score for Sig. (0.001 < .05), which proves the veracity of the alternative hypothesis.

Table 8. The Wilcoxon signed-rank test.

	Post test - Pre test
Z	-3.250 ^b
Sig. asintótica(bilateral)	.001

Source: The Wilcoxon signed-rank test

Author: López, M (2022)



Graphic 9: The Wilcoxon signed-rank test

Author: López, M (2022)

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

After the development of these studies, some conclusions came up.

- The results obtained at the beginning of this study demonstrate that students have a low level of critical thinking and cognition. This is because some factors contributed to its development, such as a lack of knowledge or using conventional classroom strategies. However, this research achieved its goal, which is to demonstrate that applying PLAN reading strategy showed effective results in improving critical thinking through reading in students who were part of the experimental group. Consequently, pupils can think critically by using different resources while they predict, locate, add and note with a reading passage.
- This study reveals significant improvements in critical thinking through applying PLAN reading strategy. To achieve that, first the researcher had to evaluate the level of learners' critical thinking before and after the intervention. It was possible through some WH questions where students had to interpret, deduce and infer information taken from the reading. Those inquires helped enhance their logical thinking. Thus, during this research, pupils got positive result in their evaluations with an improvement in reasoning.
- PLAN reading strategy was established in the proposal, centered on the system's four parts: Plan, Locate. Add and Note. Each stage has different tasks and resources, such as: making predictions, brainstorming, descriptions, interviews, questioning, research, which are supported by using other resources like learning logs, charts, pictures, and hands out—being useful to engage and motivate students to develop their critical thinking. Therefore, this process is helpful to apply in classes because teachers can use a variety of activities to reach students.

• In the proposal part, the teacher adapts some activities based on PLAN reading strategy to develop students' critical thinking. According to this, they enhance students' ability to understand and think critically while reading. Thus, before answering interpretation, deduction, and inference questions, pupils must examine the reading through different activities developed in class. They could be done individually or in collaborative work.

5.2 Recommendations

After finishing this study, it is essential to give some recommendations in case of further investigation on this topic.

 It is advised that students receive different reading activities to improve critical thinking through various tasks developed in the PLAN reading strategy, such as: answering questions, making brainstorming, mind maps, research, sharing ideas, etc. Consequently, using this strategy, the teacher and students could leave their comfort zone by using unlimited resources and unconventional strategies in their classes. Thus, it allows students to engage with a text and improve their logical thinking.

- It is desirable to include multiple choice questions in tests and minimize openended inquiries. This is because of the students' age, they have an excellent imagination; however, the teacher has to guide them to get coherence in their thinking. Thus, they will enhance their reasoning by interpreting, deducing and inferring data.
- It is essential to mention that PLAN reading strategy has a stated process that is useful to have good results in developing critical thinking, and other abilities like vocabulary, comprehension, and communication. It is easy to follow and suitable for all English levels. Therefore, it is relevant that teachers have clear ideas about its implementation because it allows teachers to manage students' participation and resources to achieve the class objective.
- It is recommended that teachers adapt their teaching activities to PLAN reading strategy. It is crucial to have an innovative class and constantly search for new ways to catch students' interest, develop their abilities, and prevent lower commitment. Besides this, the teacher can remove some barriers such as conventional strategies, boring classes, or other issues presented during classes. For these reasons, through adaptation and innovation, pupils will have new opportunities to learn and improve their reasoning, having positive changes in their critical thinking.

BIBLIOGRAPHY

Al Raqqad¹, Y. M., Ismail, H. H., & Al, K. M. (2019). The impact of reading strategies on EFL students: A research review PG 2

Criollo, F. (2017, 23 Abril). La lectura es un hábito en construcción en el Ecuador. El Comercio.

Tara. (2013) "WE ARE NOT A READING CULTURE" QUILLCANA Cultural Competence & Latin America.

Anyaegbu, M. I., Aghauche, E. E., & Nnamani, E. (2016). Poor reading habit and the academic performance of junior secondary school students in Enugu south local government area of Enugu state. Education Research Journal, 6(8), 112-121.

Bates, C. C., & Morgan, D. N. (2018). Seven elements of effective professional development. The Reading Teacher, 71(5), 623-626. Al Raqqad¹, Y. M., Ismail, H. H., & Al, K. M. (2019). The impact of reading strategies on EFL students: A research review PG 2

Caverly, D. C., Nicholson, S. A., & Radcliffe, R. (2004). The effectiveness of strategic reading instruction at the college level. Journal of College Reading and Learning, p.191.

Roe, B., Smith, S. H., & Kolodziej, N. J. (2018). Teaching reading in today's elementary schools. Cengage Learning.

Rodas Auquilla, T. A. (2014). Critical thinking skills development and english improvement through reading and writing activities at Lower-Intermediate level in Sagrados Corazones high school in Cuenca, Ecuador.

Amelia, M. (2018). Using PLAN (Predict, Locate, Add, Note) strategy in teaching reading descriptive text. *Komposisi: Jurnal Pendidikan Bahasa, Sastra, dan Seni, 19*(1), 64-75.

Hosseini, E., Khodaei, F. B., Sarfallah, S., & Dolatabadi, H. R. (2012). Exploring the relationship between critical thinking, reading comprehension and reading strategies of English university students. *World Applied Sciences Journal*, 17(10), 1356-1364.

Radcliffe, R., Caverly, D., Peterson, C., & Emmons, M. (2004). Improving textbook reading in a middle school science classroom. *Reading Improvement*, 41, 145-156.

Yousefi, S., & Mohammadi, M. (2016). Critical thinking and reading comprehension among postgraduate students: The case of gender and language proficiency level. *Journal of Language Teaching and Research*, 7(4), 802.

Ramasari, M., & Novtarina, C. (2018). Teaching reading comprehension by using predict, locate, add note strategy to the eighth grade students of smp negeri 2 lubuklinggau. *ELT-Lectura*, *5*(1), 95-102.

Zhou, J., Jiang, Y., & Yao, Y. (2015). The Investigation on Critical Thinking Ability in EFL Reading Class. *English Language Teaching*, 8(1), 83-94.

Djuraevna, T. N. (2022). Language Teaching Methodology: Tradition and Modernity. Central Asian journal of literature, philosophy and culture, 3(2), 41-51.

Piaget, J. (1950). Une expérience sur la psychologie du hasard chez l'enfant: le tirage au sort des couples. *Acta Psychologica*.

Vigotsky, L. S. (1926). La educación estética. Psicología Pedagógica. Primera edición. Moscú: Editorial Izdátielstvo Rabotnik Prosveshchenia.

Larsen-Freeman, D., & Anderson, M. (2013). *Techniques and principles in language teaching 3rd edition-Oxford handbooks for language teachers*. Oxford university press.

Serin, H. (2018). A comparison of teacher-centered and student-centered approaches in educational settings. *International Journal of Social Sciences & Educational Studies*, 5(1), 164-167.

Emaliana, I. (2017). Teacher-centered or student-centered learning approach to promote learning?. *Jurnal Sosial Humaniora (JSH)*, *10*(2), 59-70.

Johnson, D. W., & Johnson, R. T. (2018). Cooperative learning: The foundation for active learning. Active learning—Beyond the future, 59-71.

Johnson, D. W., Johnson, R. T., & Smith, K. A. (2014). Cooperative learning: Improving university instruction by basing practice on validated theory. *Journal on Excellence in University Teaching*, 25(4), 1-26.

Jacobs, G. M., & Ivone, F. M. (2020). Infusing Cooperative Learning in Distance Education. TESL-EJ, 24(1), n1.

Pedaste, M., Mäeots, M., Siiman, L. A., De Jong, T., Van Riesen, S. A., Kamp, E. T., ... & Tsourlidaki, E. (2015). Phases of inquiry-based learning: Definitions and the inquiry cycle. *Educational research review*, *14*, 47-61.

Margunayasa, I. G., Dantes, N., Marhaeni, A. A. I. N., & Suastra, I. W. (2019). The Effect of Guided Inquiry Learning and Cognitive Style on Science Learning Achievement. International Journal of Instruction, 12(1), 737-750.

Doo, M. Y., Bonk, C., & Heo, H. (2020). A meta-analysis of scaffolding effects in online learning in higher education. International Review of Research in Open and Distributed Learning, 21(3), 60-80.

Almeida, P. A. (2012). Can I ask a question? The importance of classroom questioning. *Procedia-Social and Behavioral Sciences*, *31*, 634-638.

Hildenbrand, L., & Wiley, J. (2021). Can Closed-ended Practice Tests Promote Understanding from Text?. In *Proceedings of the Annual Meeting of the Cognitive Science Society* (Vol. 43, No. 43).

Lee, Y., Kinzie, M. B., & Whittaker, J. V. (2012). Impact of online support for teachers' open-ended questioning in pre-k science activities. *Teaching and teacher education*, 28(4), 568-577.

Forehand, M. (2017). Ch. 8 Bloom's Taxonomy. *Instructional Methods,*Strategies and Technologies to Meet the Needs of All Learners.

Nappi, J. S. (2017). The importance of questioning in developing critical thinking skills. *Delta Kappa Gamma Bulletin*, 84(1), 30.

Mitsea, E., & Drigas, A. (2019). A Journey into the metacognitive learning strategies. International Journal of Online & Biomedical Engineering, 15(14).

Marzuki, A. G., Alim, N., & Wekke, I. S. (2018, May). Improving the reading comprehension through cognitive reading strategies in language class of coastal area in indonesia. In IOP Conference Series: Earth and Environmental Science (Vol. 156, No. 1, p. 012050). IOP Publishing.

Rizqiana, A., & Triastuti, A. (2019). Predict, Locate, Add, and Note (PLAN) strategy: An effective way to assist EFL students' reading comprehension in task-based learning. In *English Linguistics, Literature, and Language Teaching in a Changing Era* (pp. 100-107). Routledge.

Mitchell, T., Cohen, W., Hruschka, E., Talukdar, P., Yang, B., Betteridge, J., ... & Welling, J. (2018). Never-ending learning. Communications of the ACM, 61(5), 103-115.

Muhajirah, M. (2020). Basic of Learning Theory:(Behaviorism, Cognitivism, Constructivism, and Humanism). *International Journal of Asian Education*, 1(1), 37-42.

Rhodes, R. E., McEwan, D., & Rebar, A. L. (2019). Theories of physical activity behaviour change: A history and synthesis of approaches. *Psychology of Sport and Exercise*, 42, 100-109.

Dindar, M., Järvelä, S., & Järvenoja, H. (2020). Interplay of metacognitive experiences and performance in collaborative problem solving. *Computers* & *Education*, 154, 103922.

Obergriesser, S., & Stoeger, H. (2020). Students' emotions of enjoyment and boredom and their use of cognitive learning strategies—How do they affect one another?. *Learning and Instruction*, 66, 101285.

Posner, M. I., & Rothbart, M. K. (2014). Attention to learning of school subjects. *Trends in Neuroscience and Education*, *3*(1), 14-17.

Klein, S. B. (2015). What memory is. *Wiley Interdisciplinary Reviews:*Cognitive Science, 6(1), 1-38.

Wang, Z., & Wang, L. (2015). Cognitive development: Child education. *International encyclopedia of the social & behavioral sciences*, 4, 38-42.

Riding, R., & Rayner, S. (2013). *Cognitive styles and learning strategies:*Understanding style differences in learning and behavior. David Fulton Publishers.

Nouchi, R., & Kawashima, R. (2014). Improving cognitive function from children to old age: a systematic review of recent smart ageing intervention studies. *Advances in Neuroscience*, 2014.

Biehler, R., Frischemeier, D., Reading, C., & Shaughnessy, J. M. (2018). Reasoning about data. *International handbook of research in statistics education*, 139-192.

Zulmaulida, R., & Dahlan, J. A. (2018, June). Watson-Glaser's critical thinking skills. In *Journal of Physics: Conference Series* (Vol. 1028, No. 1, p. 012094). IOP Publishing. P. 4

Hayes, Brett K.; Heit, Evan (2017). *Inductive reasoning 2.0. Wiley Interdisciplinary Reviews: Cognitive Science.* 2

Tuch, R. H. (2011). Thinking outside the box: A metacognitive/theory of mind perspective on concrete thinking. *Journal of the American Psychoanalytic Association*, 59(4), 765-789.

Utami, B., Saputro, S., Ashadi, A., Masykuri, M., Probosari, R. M., & Sutanto, A. (2018). Students' critical thinking skills profile: constructing best strategy in teaching chemistry. *International Journal of Pedagogy and Teacher Education*, 2, 8-71.

Siswono, T. Y. E., Hartono, S., & Kohar, A. W. (2020). Deductive or Inductive? Prospective Teachers' Preference of Proof Method on an Intermediate Proof Task. *Journal on Mathematics Education*, *11*(3), 419.

Willig, C. (2014). Interpretation and analysis. *The SAGE handbook of qualitative data analysis*, 481.

Hitchcock, D. (2018). Critical thinking.

DeQuinzio, J. A., Taylor, B. A., & Tomasi, B. J. (2018). Observational learning and children with autism: Discrimination training of known and unknown stimuli. *Journal of Applied Behavior Analysis*, *51*(4), 802-818.

Almeida, P. A. (2012). Can I ask a question? The importance of classroom questioning. *Procedia-Social and Behavioral Sciences*, *31*, 634-638.

Watson, R. (2015). Quantitative research. *Nursing Standard* (2014+), 29(31), 44.

Creswell, J. W. (2015). Revisiting mixed methods and advancing scientific practices.

Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. International Journal of Economics & Management Sciences, 6(2), 1-5.

Siedlecki, S. L. (2020). Understanding descriptive research designs and methods. *Clinical Nurse Specialist*, *34*(1), 8.

5.4 Annexes



Ambato 18 de mayo del 2022.

Señor

Msc. Manuel Fierro.

RECTOR DE LA UNIDAD EDUCATIVA ATENAS

Presente

De mi consideración:

Yo, Carlos Marcelo López Tello con cedula N. 180463073-7, estudiante de la Universidad Técnica de Ambato Cohorte 2021, solicito a Usted muy comedidamente realizar mi Plan de Titulación con el tema: "PLAN READING STRATEGY HELPS TO IMPROVE CRITICAL THINKING THROUGH READING IN EFL STUDENTS", con los estudiantes de 6to EGB del año lectivo 2021-2022, para la aplicación de la estrategia y de los diferentes instrumentos de recolección de datos que aporten a la investigación.

Por la favorable atención a la presente anticipo mis agradecimientos.

Atentamente.

Lic. Marcelo López

180463073-7



VALIDACIÓN DE LOS CONTENIDOS DEL INSTRUMENTO DE EVALUACIÓN SOBRE "PLAN READING STRATEGY HELPS TO IMPROVE CRITICAL THINKING THROUGH READING IN EFL STUDENTS"

CORRESPONDENCIA DE LAS PREGUNTAS DE LA ENCUESTA PREGUNTADAS A LOS ESTUDIANTES

		LOS ÍTEMS	VARIABLE E RES INTE	REPRESE O= OPTI B= BUEN R=REGU	(B) (C) CALIDAD TÉCNICA Y REPRESENTATIVIDAD O= OPTIMO B= BUENO R=REGULAR I=INSUFICIENTE			A 00	OBSERVACIONES	
		Р	NP	0	В	R	1	A	1	
1.	What type of reading strategy did your English teacher commonly use in class?	×		×				×		
2.	Do you consider that level of Critical Thinking has improved with the PLAN reading strategy?	4		X				¥		
3.	After the strategy, are you able to think critically about any topic?	X		Y				×		
4.	How often your teacher use passages or readings to encourage your critical thinking?	¥		7				K		
5.	How often do you predict a topic about the reading?	*		X		-	_	*		
6.	How often do you locate specific information from a reading?	*		¥		-	-	*	-	
7.	How often do you add new information about any topic?	+		K				X		
8.	Which abilities did this strategy contributes to your critical thinking? - Identify accurate information. - Interpret information implied in a text. - Infer ideas from a text.	<i>*</i>		*				7		
9.	Do you like this strategy?	+		X				+		
10.	Do you consider the effectiveness of the strategy in critical thinking?	+		E				+		

Firma:



VALIDACIÓN DE LOS CONTENIDOS DEL INSTRUMENTO DE EVALUACIÓN SOBRE "PLAN READING STRATEGY HELPS TO IMPROVE CRITICAL THINKING THROUGH READING IN EFL STUDENTS"

CORRESPONDENCIA DE LAS PREGUNTAS DEL INSTRUMENTO PRE TEST – POST TEST PREGUNTAS PARA LOS ESTUDIANTES.

	(A) CORRESPONDENCIA DE LOS ÍTEMS CON LOS OBJETIVOS VARIABLE E INDICADORES P= PERTINENTE NP= NO PERTINENTE		CORRESPONDENCIA DE LOS ÍTEMS CON LOS OBJETIVOS VARIABLE E INDICADORES P= PERTINENTE NP= NO PERTINENTE REGULAR I=INSUFICIENTE		(C) LENGUAJE, GRAMÁTICA Y ORTOGRAFÍA A=ADECUADO I=INADECUADO		OBSERVACIONES		
	Р	NP	0	В	R	1	Α	1	
Reading: Eruptions that changed the world! Question 1: Students are able to identify accurate information presented in the reading.	X		Х				*		
Question 2: Students are able to identify accurately logical conclusions implied in the text.	*		*				4		
Questions 3: Students are able to make inference with clarity using ideas from the text.	X		X				X		

Firma:

DATOS DEL/A VALIDAROR/A

NOMBRES Y APELLIDO: Josue Alexander Garzón Tapia
CEDULA DE IDENTIDAD: 05 0407 17 0 - 5
TITULO: Licenciatura en Ciencias de la Educación
CAMPO DE ESPECIALIZACION: Pedagogia del idiomo: Inglés
TELEFONOS: 099841265 9
INSTITUCION QUE LABORA: Unidad Educativa Atenas
FUNCIONES: Ociente
FECHA DE CALIDACION: 10 - 06/2022
OBSERVACIONES GENERALES:

FIRMA:



UNIVERSIDAD TÉCNICA DE AMBATO

MAESTRIA EN ENSEÑANZA DEL IDIOMA INGLÉS COMO LENGUA EXTRANJERA - COHORTE 2021

PRE TEST - POST TEST

To identify the level of critical thinking of the students reached through expository text. Level A2.1

Gende	r:	F	М	Age:	

Paper 1 Reading sheet 1.

Instruction:
Use a pencil (B or HB)
Rub out any answer with an eraser if you want to change it.
For reading:
Mark one letter for each question: For example, if you think A is the right answer, check like this:

	1	Α	В	u	۵
	2	Α	В	С	D
	3	Α	В	U	۵
RS	4	Α	В	u	D
ANSWER	5	Α	В	С	D
×	6	Α	В	U	۵
ž	7	A	В	U	D
▼	8	Α	В	С	D
	9	Α	В	c	D
	10	Α	В	С	D

QUESTION 1. Goal. - Students are able to identify accurate information presented in the reading.

Read the following text and mark the best answer (A, B, C or D) in the answer box.

Eruptions that changed the world!

Volcanoes have changed the world several times in the past. They've made cities and people disappear, and they've changed the climate for years. Have you heard of the Lost City of Atlantis? Some people think it was lost because of a volcanic eruption in Greece.

The island of Santorini (once called Thera), in Greece, is on half a volcano. The other half of the volcano exploded and disappeared in 1600 bce. A culture, the Minoans, may have disappeared with it. Ash from the eruption has been found as far away as Egypt. Because of the explosion, crops died and rain and temperature changed for years.

Today, three million people live near Mount Vesuvius in Italy. However, in 79 ce, it erupted. The explosion sent ash 24,000 meters (15 miles) into the air. The sky was dark because of the eruption. Hot ash ran down the cone and burned everything in its way. In two hours, two cities were gone.

Two eruptions in Indonesia changed the world. The first, Tambora in 1815, sent gases into the sky that circled Earth. Because of that eruption, Europe and North America had no summer in 1816. The weather changed a lot! In 1883, Krakatoa sent ash 60,000 meters (37 miles) into the sky! Earth's temperature dropped for five years. It was the biggest eruption in history. If there is another big eruption, where will it be?

1. What does "it" refers to in this part of the reading?

"A culture, the Minoans, may have disappeared with it."

- One half of the island.
- B. One half of Greece.
- C. One half of the volcano.
- D. One half of Thera.
- 2. What does "They've" refers to in this part of the reading?

"they've changed the climate for years."

- A. Volcanoes
- B. Weather
- C. People
- D. Cities
- 3. What does "it" refers to in this part of the reading?

"It was the biggest eruption in history."

- A. The weather.
- B. Krakatoa Eruption.
- C. Earth's temperature.
- D. The sky.
- 4. What does "that" refers to in this part of the reading?

"Because of that eruption"

- A. Krakatoa eruption.
- B. Santoriny eruption.
- C. Greece eruption
- D. Tambora eruption.

QUESTION 2. Goal. - Students are able to identify accurately logical conclusions implied in the text.

Read the following text and mark the best answer (A, B, C or D) in the answer box.

5. What is the main idea of the following paragraphs?

Volcanoes have changed the world several times in the past. They've made cities and people disappear, and they've changed the climate for years. Have you heard of the Lost City of Atlantis? Some people think it was lost because of a volcanic eruption in Greece.

- A. Why do volcanoes exist?
- B. Why volcanoes are part of our lives?
- C. How volcanoes changed our world?
- D. Where do volcanoes come from?

6. What is the main idea of the following paragraphs?

The island of Santorini (once called Thera), in Greece, is on half a volcano. The other half of the volcano exploded and disappeared in 1600 bce. A culture, the Minoans, may have disappeared with it. Ash from the eruption has been found as far away as Egypt. Because of the explosion, crops died and rain and temperature changed for years.

Today, three million people live near Mount Vesuvius in Italy. However, in 79 ce, it erupted. The explosion sent ash 24,000 meters (15 miles) into the air. The sky was dark because of the eruption. Hot ash ran down the cone and burned everything in its way. In two hours, two cities were gone.

- A. The effect of volcanoes eruption.
- B. Cities that volcanoes have affected.
- C. Time of volcanoes eruption.
- D. Benefits of volcanoes eruption.

7. What is the main idea of the following paragraphs?

Two eruptions in Indonesia changed the world. The first, Tambora in 1815, sent gases into the sky that circled Earth. Because of that eruption, Europe and North America had no summer in 1816. The weather changed a lot! In 1883, Krakatoa sent ash 60,000 meters (37 miles) into the sky! Earth's temperature dropped for five years. It was the biggest eruption in history. If there is another big eruption, where will it be?

- A. Importance of volcanoes.
- B. Biggest volcano eruption.
- C. Eruptions in Tambora.
- D. North America volcano eruptions.

QUESTION 3. Goal. - Students are able to make inference with clarity using ideas from the text.

Read the following text and mark the best answer (A, B, C or D) in the answer box.

- 8. Why does the author mention "the lost city of Atlantis"
 - To talk about climate changed.
 - B. To show the power of an eruption.
 - To talk about Atlantis culture.
 - D. To state some lost cities.
- 9. What happened after the Mount Vesuvius eruption?
 - People move to Egypt.
 - B. People clean their houses.
 - People died.
 - D. People move to Italy.
- 10. How will climate changed with a big volcano eruption?
 - A. Climate will be hotter.
 - B. Climate will be the same.
 - C. Climate will get worst.
 - D. Climate will be colder.

CHAPTER VI

6. PROPOSAL

6.1. General Information

Topic: PLAN reading strategy to improve critical thinking through reading in EFL

students.

Executing institution: *Unidad Educativa Atenas*

City: Ambato

Students: Sixth grade

Author: Marcelo López Tello

6.2. Experiment Background

This proposal intends to respond to teachers strain on the use of strategies to

develop critical thinking through readings. This struggle is shown in their educational

field, because teaching is mainly based on grammar or repetition which does not

promote cognitive abilities. As a result, students only read mechanically, without

having an understanding beyond the information they have in the text. Therefore, this

proposal suggests the use of PLAN reading strategy, which allows learners to develop

both reading skills and critical thinking abilities. Khoirunnisa, (2019) states that

"(PLAN) is a reading strategy that students use before, during, and after content area

reading. This strategy incorporates cognitive strategies to assist middle school through

college level students in selecting the appropriate strategies for a particular task in

75

comprehension." Therefore, the results of this investigation have shown that this strategy helps students to read the texts more meaningfully and develop their thinking.

6.3. Justification

This is a didactic guide proposed for teachers to compensate for their needs based on the use of reading strategies in the following areas: teaching and learning reading, developing critical thinking, motivation, expanding different perspectives, sharing thoughts, and discussion. Taking into consideration these aspects, it is necessary to work in the use of PLAN reading strategy, because it is a step by step strategy that is easy to develop and effective to learn.

This proposal presents this strategy (PLAN) which follows its steps Predict, Locate, Add, and Note to accomplish success during the class session. Also, it is important to state that this proposal is planned for six weeks with the use of authentic and fun short reading stories, directed to students from 10 to 11 years. Therefore, it is necessary to bear in mind that this schema can be modified to be used for different levels, ages and context.

This guide has a pedagogical side which will have a big impact on teachers by using it, but most importantly on students. It will improve the skills mentioned before, also they will feel motivated to participate in this process. Learners will be able to think critically not only in the classroom, but apply it to their real world with different contexts. Moreover, teachers and students from *Unidad Educativa Atenas* will be the main recipients of this proposal because they need to be part of this process of implementing new strategies for English language teaching.

6.4. Objectives

6.4.1 General Objective

To provide a didactic teacher guide applying PLAN reading strategy to improve critical thinking through readings activities.

6.4.2 Specific Objectives.

- To determine what PLAN reading strategy is about and learn how to apply this strategy step by step during classes.
- To apply activities to promote the PLAN reading strategy.
- To evaluate students' critical thinking using appropriate test based on the strategy provided in this guide.
- To socialize this didactic guide to the English teachers and its benefits to develop critical thinking through reading.

6.5. Feasibility

The feasibility of this guide is shown in the positive results based on the background of this research. It could be socialized by the author of this research work and applied by teachers as a part of the reading section of the class. Or it could be applied as a little project at the end of each module, which is part of the institutional curriculum. This proposal can help to improve the reading process and develop cognitive abilities. Moreover, there are some facilities that help to advance this proposal which are the students' motivation to participate, class laboratories and reading material either online or physical. This proposal is applicable, because it includes this fresh strategy (PLAN) that is easy to use and has great benefits for students and allows teachers to go beyond their traditional teaching methods. This is a study reading strategy that helps students to develop reading. PLAN stands for

predict, locate, add and note. It evaluates students' prior knowledge, it aims to develop students analyzing and understanding. At the end of this process students participate in an activity that can be a class discussion.

Critical Thinking.

This skill helps students to reflect their ideas on a different level by understanding and questioning any information given by the teacher. When learners' self- reflect the information, they build their opinions and become more independent of what they believe.

6.6. Methodology

Inquiry based learning process is the methodology applied to develop this guide to develop critical thinking. It uses observation to embrace questioning and gather information, with it, students will develop PLAN reading. Here they are encouraged to participate actively, using their senses, because they have to share their ideas and compare them with others. This process not only helps to develop cognitive abilities but learners are able to grow emotional intelligence. When they control that part of their learning process they can understand a topic much better and have an abstract thinking. When students think beyond what is in the text, they find details and new information which may be relevant to them. Scaffolding is a big part of inquiry based learning. Therefore, all the information shared by the teacher and classmates should be praised as part of learning. An educator's guide is indispensable, of course the teacher does not have to give all the information to students, but help them to discover it.

KOLB Learning Cycle

This is a learning theory created by David Kolb's, this one follows a four step cycle which are: Concrete Experience, Reflective Observation, Abstract Conceptualization and Active Experimentation. This process starts with a concrete experience. KOLB is used during the development of the activities based on the PLAN reading strategy. Here, concrete experiences are used based on prior knowledge. Learners have to engage completely in the activity to learn. They are able to discuss in the classroom and ask questions, reflect their prior knowledge and classify concepts. At the end of the session, they practice all the things that they learn through an activity. This cycle has to be completed to ensure the success of the learning process, otherwise, the pupils will have gaps in it. Thus, when students can apply abstract context to their learning experience, this is a good indicator that they have acquired that information.

Task-based learning

Task-based learning is found in the origins of teaching which is based on tasks. Teachers choose to use this approach to adapt it during their class session because it allows the class to be truly communicative, in which the activities are directly connected to real base experience. According to Celik, B. (2017) "The emphasis in task-based learning is on understanding. Language learners are involved in tasks to negotiate meaning. Rather than focusing on the correct use of the language, meaning and communication are given attention to". Task-based learning offers the opportunity to use the students' production to give feedback from the teacher or classmates.

The activities give the opportunity to catch specific information that may or may not be implicit. Furthermore, this approach helps to assess students during the development of their classwork. A task has the principle purpose of creating critical

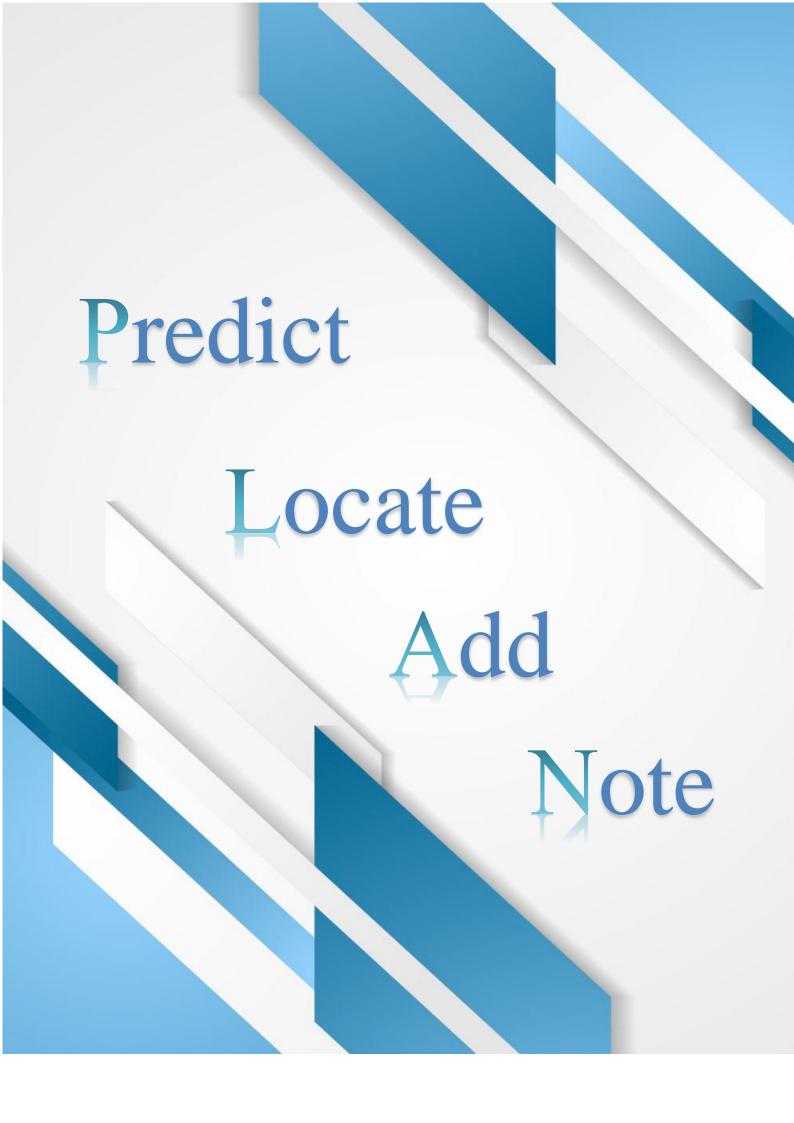
thinking among students as well as giving opinions based on the information provided. Teachers have to take into consideration that grammar and vocabulary increase the learners' possibility to detect and correct their mistakes. This approach offers a fresh alternative to English teachers to advance a lesson based on a central task.

Operative model.

Table 9: Operative model.

	Objective	Activities	Recourses	In charge
Introduction	Engage and motivate teachers to apply PLAN reading strategy to improve critical thinking.	Explain the structure of the lesson plan	Didactic guide	Author proposal
Features	Explain the structure of the guide and the approach during English classes.	Present a demo class.	Didactic guide	Author proposal
Basis	Make teachers to reflect how the activities are connected.	Sharing opinions.	Didactic guide	Author proposal

Author: López, M (2022)



CONTENT

1.	Introduction	
		. 3
2.	Scope	
	4	
3.	Objectives	
		5
	3.1	General
	Objective	5
	3.2	Specific
	Objectives	. 5
4.	Competences	
		5
5.	Applying the plan	reading
	strategy8	
	5.1 Book 1 Lesson Plan	
	11	
	5.1.1 Task 1	
	12	
	5.1.2	Task
	212	
	5.1.3Task	
	313	
	5.1.4	Task
	414	
	5.1.5	Task
	514	
	5.1.6	Task
	615	
	5.1.7	Test
	16	

5.2	2 Book 2 Lesson Plan	
18	5.2.1 Task 1	
19	5.2.1 Task 1	•••••
2	5.2.2	Task
2		
3		
4	5.2.4	Task
4	5.2.5	Task
5	21	
_	5.2.6	Task
6	5.2.7	Test
	22	
	Book 3 Lesson Plan	
24	5.3.1	Task
1	25	
	5.3.2	Task
2		
3		
	5.3.4	Task
4	5.3.5	Task
5	28	Tubh
	5.3.6	Task
6	5.3.7	Test
	29	1030

5.4	Book 4 Lesson Plan	• • • • • • • • • • • • • • • • • • • •
31		
	5.4.1 Task 1	
32		
	5.4.2	Task
2	32	
	5.4.3Task	
3	33	
4	5.4.4	Task
4	33	7F. 1
5	5.4.534	Task
3	5.4.6	Task
6	34	Task
0	5.4.7	Test
	35	1000
	5 Book 5 Lesson Plan	
37		
	5.5.1 Task 1	
38		
	5.5.2	Task
2	38	
	5.5.3Task	
3	39	
	5.5.4	Task
4	39	
	5.5.5	Task
5	40	m 1
	5.5.6	Task
6	40	Tr
	5.5.7	Test
• • • • • • •	41	

PLAN Reading Strategy

Task
Task
Task
Task
Test
map
.9
key
ferences

1. INTRODUCTION

The importance of reading will always remain in every educational field from time to time. With this skill students learn to be more knowledgeable, curious but most importantly they become critical thinkers.

The aim of this didactic guide is to provide educators a complete model of how to apply PLAN reading strategy to help students develop their critical thinking skills through the use of readings. In this guide, teachers will find a clear explanation of what PLAN reading strategy is, how it works and its step by step application in the classroom. It is a way to help students activate their prior knowledge through the use of mind maps, questioning, Inquire based learning, collaborative work, fostering them to go beyond their abilities to Predict, Locate, Add and Note important information in each reading. In addition, there will be some reading passages used in each activity to develop inference, deduction and interpretation which are essential parts of critical thinking development.

"PLAN reading" expects to give the readers enough and clear information about its application, since it hasn't been used before in such a way. Furthermore, the author hopes he raises more awareness of the importance of improving critical thinking skills through the use of readings in the classroom from now on.

"Learning without thought is labor lost; thought without learning is perilous."

Confucius

PLAN reading strategy to improve critical thinking though reading.

2. SCOPE

Reading Books	PLAN Reading	Critical thinking	Objective
1 Brad needs a budget	Predict Locate Add Note	Interpretation Deduction Inference	Identify the main ideas and some details of written texts, in order to interact with and to develop an approach of critical inquiry to a variety of texts. O.EFL 3.1
2 Fishing with grandpa	Predict Locate Add Note	Interpretation Deduction Inference	Develop critical thinking skills to foster problem-solving using both spoken and written English. O.EFL 3.4
3 Jane Goodall	Predict Locate Add Note	Interpretation Deduction Inference	Read short descriptive and informative texts related to the story and use them as a means of communication. O.EFL 3.6
4 The story of the mayflower	Predict Locate Add Note	Interpretation Deduction Inference	Appreciate the use of English language through written literary texts such as short stories in order to foster imagination, curiosity and memory, while developing a taste for oral and written literary texts. O.EFL 3.7
5 Circus Escape	Predict Locate Add Note	Interpretation Deduction Inference	Demonstrate an ability to interact with written texts, in order to explore creative writing as an outlet to personal expression. O.EFL 3.8
6 The Ramadan lantern story	Predict Locate Add Note	Interpretation Deduction Inference	Develop critical thinking skills to foster problem-solving using both spoken and written English. O.EFL 3.4

3. Objectives

3.1 General Objective

To provide a didactic teacher guide applying PLAN reading strategy to improve critical thinking through readings activities.

3.2 Specific Objectives.

- To determine what PLAN reading strategy is about and learn how to apply this strategy step by step during classes.
- To apply activities to promote the PLAN reading strategy.
- To evaluate students' critical thinking using appropriate test based on the strategy provided in this guide.

4. COMPETENCES.

Communication

This skill is one of the most important in the classroom, it helps to learn, to transfer information and understand it. According to Claire, (2006) "Define it in terms of problem-solving, participation, and collaboration around predetermined tasks, the outcome of which can be subjected to quality assessment and quality improvement" Therefore, the author refers about when students communicate effectively in the classroom, their attitude and behavior improves significantly. Therefore, teachers have to develop this competence that can be verbal or non-verbal through the use of class discussions or writing on the board. But communication doesn't just happen, sometimes it needs a lot of encouragement, and a good relationship from teacher to students.

When students feel stress free or safe, it is easier for them to take an active role in the classroom, share their ideas and answer questions.

With this competence, students will be able to listen more to other perspectives and to pay attention to relevant information. In addition, group work really enhances class communication, some students feel better when they work in pairs or groups. Finally, this allows students to get an insight into what their partners are into, share their interest and get their work done. It is advised that teachers control these groups, allowing students to choose who they work with from time to time.

Collaborative work

Laal and Ghodsi, (2012) stated that "Collaboration is a philosophy of interaction and personal lifestyle where individuals are responsible for their actions, including learning and respecting the abilities and contributions of their peers". This concept supports the idea in which students need to have collaborative work in order to develop social and communicative skills. Therefore, it is easier for them to share what they think when they do it in small groups rather than the whole class. Moreover, they learn better and faster when they question and discuss each other's opinions. Thus, working in groups allows students to have different sources of information, each learner is a world full of ideas that might be new for the others.

When they work in groups to accomplish an activity, it can be done faster, because two or more heads think more than one. However, it is important to emphasize that each student must have a role in the group, thus everyone contributes to the activity. Furthermore, teachers have to avoid pairing students that can have some conflict or the ones that have behavior problems, in order to keep the safety, and

respect among the groups. Finally, this competence has to be used in the classroom to allow students to share information and explore different positions and enhance their collective learning during their instruction process.

Innovation

It is relevant that the teacher chooses strategies, and activities that are innovative. They have to develop imagination and creativity as part of education, without it, learning can become boring and unlimited. Teachers have to engage, and encourage students through the use of some tools they already have in an innovative way. It allows students to feel comfortable during classes, boosting them to work. Any learning process can be modified to be more relevant, to catch interest, and shape abilities. Therefore, this competence helps teachers to explore new ideas and leave their comfort zone.

When teachers innovate, they provide a different view of how to help students' needs. Finding what can make a difference in the teaching process, improves how students acquire knowledge. But it does not mean that you have to stress over how to apply the latest strategy to catch students' attention. Instead, analyze what your students are interested in, their background and age. There are many ways to use what is already there to create something new. For instance, PLAN reading strategy has been around for decades. It is an excellent strategy to develop many skills, but most importantly catch students' curiosity.

5. APPLYING THE PLAN READING STRATEGY

In the first day of classes, the teacher has to introduce what PLAN reading strategy is, its process, application and the benefits of using this strategy. Plan reading is an active strategy used to develop different skills, in this case "Critical thinking" from the application of four main approaches which are Prediction, Location, Add and

Note.

Prior knowledge. Teacher asks Wh-questions to introduce the title of the text and

writes it on the board. Also it can include images or drawings.

BEFORE READING

Predict: Students have to describe and make predictions about the whole reading,

pictures, and headings. To search for clues about what the text is going to be about.

Using this information the teacher has to create or give students a mind map where

they will brainstorm the data they gather before. Finally, teachers can provide Wh-

questions to answer, this is advised.

Example: Teacher and students create a tentative map about the content of the text.

Step 1. Write the title of the reading.

Step 2. Make four branches from the title to write the students' predictions.

Step 3. Make four branches from the title with predicting questions to check their prior

knowledge.

DURING READING

Locate: After they write their ideas, students have to determine what they already know by answering questions, such as: who is the author, how many characters, who is the main character, who are the secondary characters, is there a villain in the story?, etc. To achieve this, teacher provides students the reading text, to read aloud and in silence during classes. It is important to mention that all the answers to the questions must be stated in the reading. Thus, it allows students to know in which topics they have to focus more.

AFTER READING

Add: After reading, they have to go back to the predicting part. Here they answer the predicting questions or add data to the four questions in their concept map. It is needed that they investigate extra information, ask questions, and find new ideas logically. Thus, they point out the most important parts of the reading.

Example: Students work in groups, pairs or individually to discuss and answer the four questions.

- What is the main idea of the text?
- Why does the author mention that?
- What happened after?
- How does it change?

Note: After revising all the information in their mind maps. The teacher has to assign students an activity, it could be: oral presentations, debates, create a lap book, multiple choice questions worksheet, test or any other activity. This is to have evidence that the pupils understood the content presented in the class.

ROLES IN THE CLASSROOM

Teachers

- Teacher has to introduce students to the PLAN reading strategy little by little.
- The teacher has to model this strategy to students.
- It is important that the educator teaches pupils how to use graphic organizers.
- The teacher has to foster students' prior knowledge and discuss real life experiences, in order to apply this strategy.
- It is necessary to use material that catches students' attention, according to their age and needs.

Students

- They have to be familiar with strategy and how it works.
- They have to activate their prior knowledge in each session.
- Group work can be implemented, depending on students' behavior.
- They are welcome to share ideas or think aloud.
- Fostering their motivation is necessary to conduct the class.

BOOK 1

Table 1: Lesson plan - Brad needs a budget by Ned Jensen						
PDF Link:						
https://drive.google.co	om/file/d/1nJJzmwZ2	0bQx5OZHN5EQT1ZUOje4Q	0om8/view?usp=share_lin			
<u>k</u>						
Objective	Materials	Indicator	Vocabulary			

Work in groups to	Book	Learners can work in	• Allowance
create a brainstorm and/or draw a mind map to describe and organize ideas or organize useful information from	Mind map Notebook	groups to create brainstorms and/ or draw mind maps to describe and organize ideas or useful information from literary texts and create a collaborative product about the reading.	 Budget Charity Expenses Raise Savings
a short story. EFL 3.5.6		I.EFL.3.24.1.	

KOLB Learning Cycle (ERCA)

Experience	Reflection	Conceptualization	Application
Warm up: Ask students how they would earn money?	Before reading. Prediction: Students look at the pictures of the book. - The teacher provides a mind map, where Ss have to write down what the reading is going to be about. -Teacher asks some questions.	Ss read the book in silence and then aloud. Locate-Add: Highlight new vocabulary and add new information Ss answer the following questions: - What was Brad's problem in the story? When did Brad get a raise of money? How did Brad manage the money he earned? Where did Brad choose to give the money he set aside? In pairs students discuss what does "Burn a hold in his pocket" means.	Note: Students create a week-budget plan for the week to present in the classroom.

Source: This resource is © copyright 2022 LAZEL, Inc. All rights reserved. Learning A-Z.

Author: López, M (2022)

TASK 1

The KWL Chart is presented in the class (what students know, want to know and have learned). The teacher has to explain how to complete to activate their prior knowledge and experience. In their notebooks, pupils have to fill this chart about the question. How they would earn money?

Table 2: KWL Chart

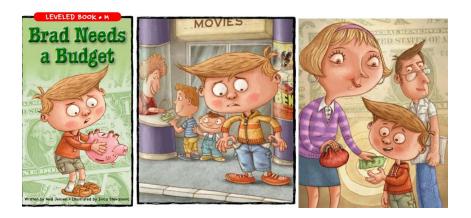
How they would earn money?					
Know	Want to know	Learnt			

Author: López, M (2022)

TASK 2

Teacher shows some pictures of the reading story, then students have to look and describe all of them in their notebook. This activity should be developed in pairs.

Figure 1. Pictures from Brad needs a budget book.

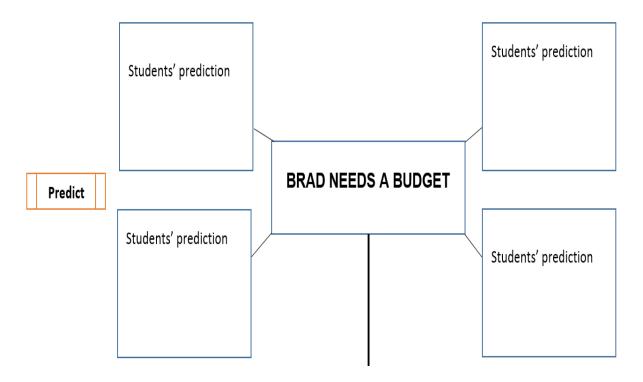


where they have to write down what the reading is going to be about.

Source: This resource is © copyright 2022 LAZEL, Inc. All rights reserved. Learning A-Z. **Author:** López, M (2022)

After that, teacher explains what a prediction is, then provide learners a brainstorm,

Figure 2: Predict Mind map

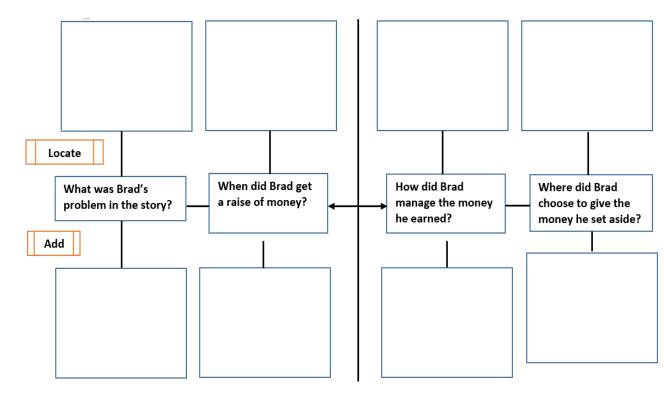


Author: López, M (2022)

TASK 3

Teacher provides four wh-questions (what, when, where, who, how, which.) about the book. All the students write down those inquires in their mind maps. Then explain that they have to read the book to find the answers to those questions. While they are reading, highlight new vocabulary and add new information. It is important that this activity have to be developed individually. When they finish, join them in pair and ask them to compare their answers. After that, everybody has the right responses.

Figure 3. Locate and Add Mind map



TASK 4

Based on their experience, students have to add information, related to those question. For example: have you ever had the same problem like Brad? When do you get a raise of money? How do you manage the money? It is useful to make those inquires personal to get extra data, finally, in pairs students discuss what does "Burn a hold in his pocket" means. Throw this activity, they could analyze, interpret and deduce new information.

Task 5

To finish with the whole mind map, students have to answer 4 last inference questions. Those inquiries should be prepared for the teacher and ask student to solve them individually. Encourage students to think logically to avoid foolish responses.

Figure 4. Note Mind map

	1. What is the main idea of the text?
	2. "Brag begged his parents for a raise, but he didn't get one." Why didn't he get one?
Note	
Created by:	3. Why does Brad's father mention "If you don't want to work more, then I think you should create a budget"
López M. (2022)	4. Was it a good idea to create a Budget to save money? Why?

TASK 6

Give students clear instruction that they have to create a monthly-budget plan to present in the classroom. It is useful to practice new vocabulary words and also it activates students' prior knowledge, helping them to solve any doubt.

 Table 3. Budget

MONTHLY BUDGET				
DATE	EXPENSE	COST	MONEY LEFT	

Author: López, M (2022)

Book 1: Critical Thinking Test

- 1. What does "it" refer to in this part of the reading? "Brad actually earn it"
 - A. Budget
 - b. Video games

- c. Money d. Job 2. What does "though" means in this line "He never seemed to have enough money, a. As b. But c. Him
- 3. What does "one" refer to in this part "Will you help me make one?"
 - a. A plan

d. They

though"

- b. A party
- c. A trip
- d. A budget
- 4. What does "those" refer to in this line "Giving money to help those in need made Brad feel good"
 - a. Animal shelter
 - b. To Brad 'parents
 - c. To his friends
 - d. To the school
- 5. What is the main idea "The problem was, the money Brad earned seems to disappear just as quickly as he earned it"
 - a. Brad saved enough money.
 - b. Brad spent all his money.
 - c. Brad didn't earn money.
 - d. Brad wants to save money.
- 6. "Brag begged his parents for a raise, but he didn't get one." Why didn't he get one?
 - a. Because he always saves money instead of spending it.
 - b. Because he was a good kid with his parents.
 - c. Because he was feeling sad.

- d. Because he spent all his money on video games
- 7. Why does Brad's father mention "If you don't want to work more, then I think you should create a budget"
 - a. To help Brad manage his money, to save enough.
 - b. To make Brad work more on the weekends.
 - c. To give Brad more money, without working.
 - d. To spend all his money on video games and movies.
- **8**. Was it a good idea to create a Budget to save money? Why?
 - a. Yes, because he could use the money for the first day of school.
 - b. No, because it is a waste of time and money.
 - c. Yes, because he saved money aside to spend in the future.
 - d. No, because it didn't help to earn more money each weekend.
- 9. Why the author mention "Burn a hole in his pocket"
 - a. To that Brad needs a new pair of jeans
 - b. To show how money can melt your pockets
 - c. To show that you are anxious to spend your money
 - d. To show that you don't need to spend your money
- **10.** What was Brad's main problem in the story?
 - a. How happy he was to spend his money
 - b. How he needs a plan to save his money
 - c. How hard he had to work to earn money
 - d. How he was going to spend his money.

BOOK 2

Table 4: Lesson Plan - FISHING WITH GRANDPA BY ROBERT CHARLES

PDF Link:

 $\underline{https://drive.google.com/file/d/1TQAWITG9CbWC_4T5fdtv918Vvg5vMZUH/view?usp=share_li}$

<u>nk</u>

Objective	Materials	Indicator	Vocabulary
_			

interaction. EFL 3.2.9 KOLB Learning Cycl	le (ERCA)	I.EFL.3.10.1.	
		I.EFL.3.10.1.	
interaction.		I.EFL.3.10.1.	
• ,		I.EFL.3.10.1.	
extend the			
simple questions to		interaction. (I.3, J.3)	
asking further		extend an interpersonal	1035
communication by		situations. Learners can ask questions to	HooksToss
using verbal	Mind map	about fishing, in any	• Worms
to what others say		to what others say	poles
React appropriately	Book	Learners can respond	 Fishing

Experience	Reflection	Conceptualization	Application
Warm up: Ask students "Have you ever gone fishing? Five senses chart	Teacher provides a mind map. In pairs, brainstorm	Ss read the book in silence and aloud. Locate-Add: Highlight new vocabulary and add new information. - Ss answer the following questions: Where did grandpa and grandson go to fish? What did they use to catch a fish? Did they go fishing at night? How long time did they wait for the fish to bite?	Note: Ss have to create a role-play about "Fishing" using new vocabulary from the book.

TASK 1

Teacher creates a 5 senses chart (see, hear, feel, smell and taste) for the title of the book that pupils will be reading "Fishing with grandpa". Then he asks students to think aloud and brainstorm what they know about it, referring to the five senses. Teacher provide some examples to guide students to complete this chart. This activity should be developed in pairs in their notebooks to support the collaborative work.

Table 5: Senses Chart

GO FISHING				
I see	I hear	I feel	I smell	I taste
Blue water	Motor boats	Hot sun	Dead fish	Salty water

TASK 2

Teacher provides students one picture and the title from the reading story to predict, but this time they have to look for the English teacher to make those predictions. This activity should be developed in pairs and they have to write down all the teachers' predictions in their mind map. **Question:** What do you think this book is about?

Figure 5: Picture from the book.

Fishing with Grandpa

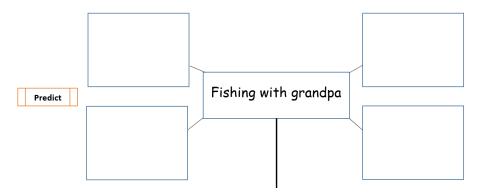
A Reading A-Z Level F Leveled Book • Word Count: 176



Source: This resource is © copyright 2022 LAZEL, Inc. All rights reserved. Learning A-Z.

Author: López, M (2022)

Figure 6: Mind map

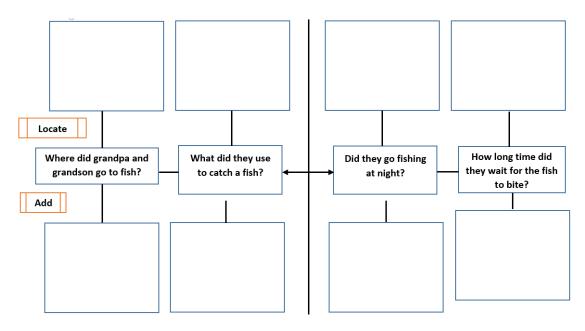


Author: López, M (2022)

TASK 3

Teacher ask students to read aloud and in silence. Point out that they have to highlight new vocabulary words in the reading. After that, present the question and prompt students to find the answer during reading. Take into consideration that this activity have to be developed individually. When they finish, join them in pair and invite them to compare their answers. After that, everybody has the right responses, if this is not the case, correct them with the whole group.

Figure 7. Mind map



Author: López, M (2022)

TASK 4

In add information section, students have to research other possible responses to those question. This activity could be done as homework or carry out students to the library to find new data on internet. After that, request students to work in pairs to complement their findings and finally, share their responses to the whole class. Make a short discussion about it.

Task 5

To finish with the whole mind map, students have to answer 4 last inference questions. Those inquiries should be prepared for the teacher and ask students to solve them individually. Encourage them to think logically to avoid foolish responses.

Figure 8: Mind map

1. What time does grandpa and grandson go fishing? Why?
Why does grandpa go to the big lake?
Why does grandson mention the following "We wait and wait for the fish to bite"
4. What did they do with the big fish they caught?

TASK 6

In pairs, pupils have to create a role-play about "Fishing" using new vocabulary words from the book.

Book 2 Critical Thinking Test

- 1. What does **toss** mean in the reading?
 - **a**. To dance
 - **b**. To stir
 - **c.** To throw
 - d. To catch
- 2. What is a **hook** in the reading?
 - a. It is a type of fish
 - **b.** It is a straight long pole to fish
 - c. It is a curved piece of metal to fish
 - **d.** It is a long thin rod use to fish
- 3. What does it refers to in the following sentence "And I pull it in"

- **a.** The hook
- **b.** The worms
- **c.** The fishing pole
- **d.** The fish
- 4. What does all means in the following sentence "We all eat the big fish"
 - a. The grandpa and grandson and uncle
 - **b.** The grandpa, grandson and grandma
 - c. The grandson and grandma
 - **d.** The uncle and grandpa
- 5. What time does grandpa and grandson go fishing?
 - a. At night
 - **b.** In the afternoon
 - c. At midnight
 - **d.** In the morning
- **6.** Why does grandpa go to the big lake?
 - **a.** Because there are not many fishes
 - **b.** Because is a beautiful lake
 - **c.** Because it has a lot of fishes
 - **d.** Because it is an unsafe place.
- **7.** What is the main idea of the reading?
 - **a.** Having a big meal with family
 - **b.** Practicing your favorite hobby
 - **c.** Sharing your knowledge with others
 - **d.** Competing to win the first prize
- 8. Why does grandson mention the following "We wait and wait for the fish to bite"
 - **a.** Because it took a lot of time before they caught a fish.
 - **b.** Because they catch a fish as soon as they toss the hook.

- **c.** Because they have to come back the next day to catch the fish.
- **d.** Because they didn't want to catch a big fish.
- **9.** What did they do with the big fish they caught?
 - **a.** They throw it into the trash.
 - **b.** They cook and eat it.
 - **c.** They use it as a trophy
 - **d.** They set it free into the water.
- **10.** Why did they get their fishing poles ready?
 - a. To catch a big fish
 - **b.** To put the worm on the hook
 - **c.** To clean the fishing poles
 - **d.** To wait until the fishes are near

BOOK 3

Table 6: Lesson Plan - JANE GOODALL BY KAREN MOCKLER

Pdf Link:

 $\underline{https://drive.google.com/file/d/1uqGzrDSStNVXltW9FrR3wI7t8jmt_Ki2/view?usp=share_link}$

Materials	Indicator	Vocabulary
Book	Create a graphic organizer	• Apes
	and personal stories by	 Chimpan
Mind map	adapting elements of literary	zees
	texts and adding imaginative	 Behaved
Flashcards	details to real-life stories	 Species
	using appropriate	• Tools
Story map	vocabulary I.EFL.3.22.1.	
J 1		
	Book Mind map Flashcards Story map	Book Create a graphic organizer and personal stories by adapting elements of literary texts and adding imaginative details to real-life stories using appropriate

KOLB Learning Cycle (ERCA)

Experience	Reflection	Conceptualization	Application
Warm up: What	Before reading.	Ss read the book in silence	Note: Ss create
do you want to be	Prediction: -	and aloud.	and present their

when you grow up? Play Pictionary	Teacher provides a story map. - Brainstorm ideas about the book based on the story map. -Ss write down ideas and answer some questions.	Locate-Add: Highlight new vocabulary and add new information. - Teacher provide a learning log to add new information. - Ss answer the following questions: What does "colorful stories" mean? Why did Janes' notes upset other scientist? Where did Jane live for many years? How did Jane's work help to protect wildlife?	poster to wildlife.	save
------------------------------------	---	--	---------------------	------

TASK 1

Teacher creates some many cards with vocabulary words or short sentence to play Pictionary. One student has to take a card and represent it by drawing on the board, while the other learners have to guess what is written in the card. The ones who is in front is not allow to speak. Thus, teacher makes students get interest in the topic and activate their prior knowledge.

TASK 2

Teacher provides students the following format of story map to predict some possible ideas of the book. He explains what students should include in each section of the map. This activity should be worked in pairs.

Table 7: Story Map

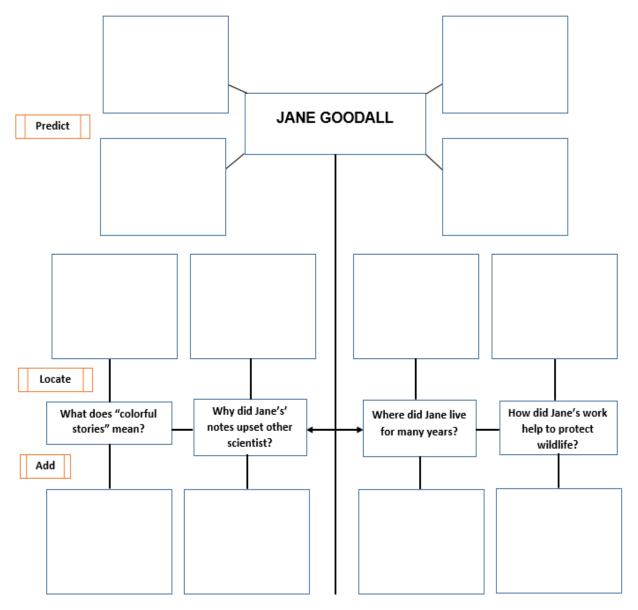
Story map	
Title:	
Characters	Beginning

Climax	End

TASK 3

Once students finish with the story map, they have to take the most relevant information and write down in the mind map. After that, Teacher invites students to read and highlight new vocabulary words in the reading. When they finish reading two times, present the question and prompt students to find the right answers during reading.

Figure 9: Mind map



TASK 4

This time, to add information to the mind map, teacher provides a learning log to complete in pairs, where students have to analyze and search for new data to those inquires about the story. This activity could be done as homework or carry out students to the library to seek new data on internet. After that, request students to work in pairs to complement their findings and finally, share their responses to the whole class. Make a short discussion about this.

Table 8: Learning log

Learning log.

Personal Experience		
Features	Vocabulary	Observations
Conclusions		
Andham I (mar M (2022)		

Author: López, M (2022)

Task 5

To finish with the whole mind map, students have to answer 4 last inference questions. Those inquiries should be prepared for the teacher and ask student to solve them individually. Encourage students to think logically to avoid foolish responses.

Figure 10: Mind map

	1.	What does Old beliefs mean based on the context of the reading?
	2.	What was Jane's biggest discovery in her investigation about apes?
Note	3.	Why does the author mention "She wrote careful notes about what she saw?"
Created by: López M. (2022)	4.	How did she help to save the forest and apes?

TASK 6

In pairs, pupils have to create a poster to save wildlife. They have to use information from the book as a reference.

Book 3 Critical Thinking Test

- 1. What does they refers to in the following sentence "She liked to watch how they behaved"
 - a. Plants
 - **b.** Animals
 - c. People
 - d. Water

- 2. What does them refers "She watch them and wrote reports"
 - a. Chimpanzees
 - **b.** Jaguars
 - c. Lions
 - **d.** Parrots
- 3. What does it refers to in the following sentence "It also teaches people living near wild places"
 - a. Scientist Institute
 - **b.** Dr. Leaky Institute
 - c. Apes Institutes
 - d. Jane Goodall Institute
- 4. What does what refers to in the following sentence "That was smart"
 - **a.** Becoming friends with David (chimp)
 - **b.** David using a stick to poke termites
 - **c.** David eating meat
 - **d.** David having feelings
- 5. What does Old beliefs mean based on the context of the reading?
 - a. New scientists want to change Jane's work.
 - **b.** People who have strong ideas that are hard to change.
 - **c.** Old teachers that don't understand Jane's investigation.
 - **d.** New scientists that are happy with Jane's work about chimpanzees.
- **6.** What was Jane's biggest discovery in her investigation about apes?
 - **a.** That apes like to be watched by humans.
 - **b.** That apes doesn't eat meat, but fruits and bugs.
 - **c.** That apes have feelings just like humans do.
 - **d.** That apes are not as intelligent as humans.
- **7.** What is the main idea of the reading?
 - **a.** Jane Goodall's investigations about apes
 - **b.** Jane Goodall's life and history

- c. Jane Goodall's scientist career
- **d.** Jane Goodall's programs and institutes
- 8. Why does the author mention "She wrote careful notes about what she saw"
 - **a.** For Jane to remember what she has written.
 - **b.** For Jane to have clear and enough evidence about apes behavior.
 - **c.** For Jane to practice her writing.
 - **d.** For Jane to report how tigers behave in the jungle.
- **9.** How did she help to save the forest and apes?
 - **a.** By buying all the forest only for her friends.
 - **b.** By selling the apes to people.
 - **c.** By cutting down all the forest and taking apes to the zoo.
 - **d.** By creating programs and talking with people about apes.
- 10. Why did the author mention "She went to work in an office"
 - **a.** To show her true passion
 - **b.** To show what was her first job
 - c. To show how tired she was
 - **d.** To compare both jobs

BOOK 4

Table 9: Lesson Plan – THE STORY OF THE MAYFLOWER BY SEAN MCCOLLUM PDF Link: https://drive.google.com/file/d/1d b-zzOrVKDJ39IYTGE8mjJDba8DaST3/view?usp=share link **Objective Indicator** Materials Vocabulary Write a simple Book Learners can write short Colony Harvest simple text-types and narrative with narratives, using new Crops Mind map linking words on vocabulary words **Feasts** and familiar subjects in ideas from the story. (I.3, **Pilgrims** White board order to express J.2) I.EFL.3.18.1. Sail everyday activities. Survival Rocked

(Example: a journal) EFL 3.4.6	Markers		LeakedEnslaved
KOLB Learning Cy	vcle (ERCA)		
Experience	Reflection	Conceptualization	Application
Warm up: How do you celebrate Thanksgivings? Play A to Z.	Before reading. Prediction: Teacher provides a mind map. Ss brainstorm ideas about the book based on the tittle. Ss write down ideas and answer some questions.	information Ss answer the following questions:	Note: Students have to imagine that they are on the Mayflower, write a journal entry about the challenges they faced once they landed.

TASK 1

Play A to Z game, first the teacher has to present a question "How do you celebrate Thanksgivings?" then divide the class in two groups and write the letters A to Z in columns down on the board. Each member of the group should write one word related to the topic. The group with more words is the winner. See the following example.

How do you celebrate Thanksgivings?

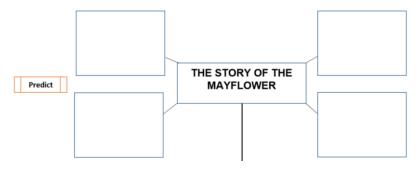
Α	В	Cook	D	Ε
F	G	Н	I	J
K	L	M	Ν	0
Р	Q	R	S	Turkey
U	V	W	X	У

Ζ

Task 2

Teacher forms 4 groups of 4 or 5 students, then invite them to discuss and prepare one prediction to the story, when they are done, pupils have to present in class their prediction. It is really important to encourage learners to provide some arguments, why they think it will happen in the story. During the group presentation, the other students have to take notes and fill the mind map.

Figure 11: Mind map

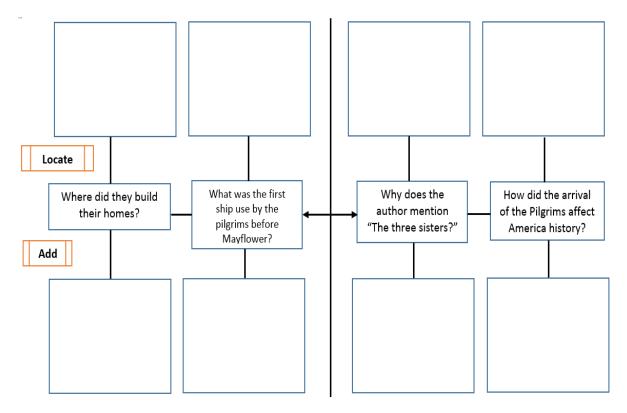


Author: López, M (2022)

Task 3

Teacher asks students to read aloud and highlight new vocabulary words in the reading. After that, prompt students to look for the right answer to the question stated in the mind map. Take into consideration that this activity have to be developed individually. When they finish, join them in pairs and invite them to compare their answers.

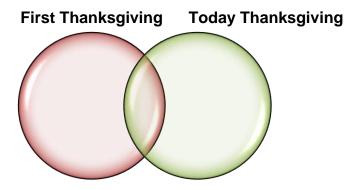
Figure 12: Mind map



TASK 4

To add information, students have to work in pairs and create a Venn diagram to compare first and today thanksgiving. After that, make a short discussion about this and share their ideas into the class. Once they finish, write down their ideas in the mind map.

Figure 13: Venn diagram

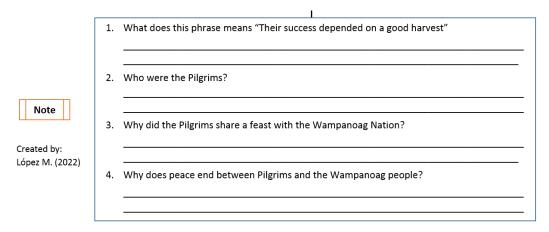


Author: López, M (2022)

Task 5

To finish with the whole mind map, students have to answer 4 last inference questions. Those inquiries should be prepared for the teacher and ask student to solve them individually. Encourage students to think logically to avoid foolish responses.

Figure 14: Mind map



Author: López, M (2022)

TASK 6

After finish reading the whole story and filling the mind map, students have to imagine that they are on the Mayflower, and write a journal entry about the challenges they faced once they landed.

Book 4 Critical Thinking Test

- 1. What does they refers to "They played games, sang, or read"
 - a. The Wampanoag Nation
 - **b.** The Pilgrims
 - c. The Pirates
 - **d.** The Americans
- 2. What does he refers to "Then he escaped and returned to his home"
 - a. Pilgrims
 - **b.** Americans

- c. Natives
- **d.** Squanto
- 3. What does it refers to "They mark it as a national day of mourning"
 - a. Thanksgivings
 - **b.** The harvest day
 - **c.** The mayflower landing
 - **d.** The slavery day
- 4. What does this refers to "This led to war with the Wampanoag people"
 - **a.** Celebrating Thanksgiving
 - **b.** Sharing the food with Pilgrims
 - **c.** Creating a new village
 - **d.** The arriving of English Colonist
- 5. What does this phrase means "Their success depended on a good harvest"
 - **a.** They need a good ship to go back.
 - **b.** They need a good amount of food to survive.
 - **c.** They need to move to a new village.
 - **d.** They need to wait for the next harvest to eat.

6. Who were the Pilgrims?

- a. People who lived in America and moved to England
- **b.** Members from the Patutext tribe.
- **c.** Passengers from the Mayflower settle in Plymouth.
- **d.** Pirates that came from Asia to conquer America.

7. Why did the Pilgrims share a feast with the Wampanoag Nation?

- **a.** As a thanks for the help they receive during hard times.
- **b.** As a way to show authority to the Nation.
- **c.** To give the Wampanoag Nation food during winter.
- **d.** To celebrate thanksgivings.

8. Why does peace end between Pilgrims and the Wampanoag people?

a. Because they wanted to take Wampanoag people to England.

- **b.** Because they wanted to take more land for them.
- **c.** Because they were really good friends.
- **d.** Because they were jealous of the Wampanoag riches.
- 9. Why did the author mention "They share a feast with Massasoit"
 - a. To show how generous Americans were.
 - **b.** To mark the first thanksgiving in history
 - **c.** To create a discord between the Pilgrims
 - **d.** To celebrate the landing of the Mayflower

10. What was the main idea of the story?

- a. Historical events that changed America
- **b.** Historical events that changed Pilgrims
- c. Historical events that change Wampanoag
- d. Historical events that change England

BOOK 5

Table 10: Lesson Plan - CIRCUS ESCAPE BY SUE CLARKE				
PDF link: https://l	PDF link: https://learnenglishkids.britishcouncil.org/listen-watch/short-stories/circus-escape			
Objective	Materials	Indicator	Vocabulary	
Record information from a written story, by reading aloud and recording it in a video. EFL 3.2.3	Book Mind map	Learners can record and identify key information from a story text of immediate need or interest. Learners can use other classmate's contributions in class as models for their own. (I.2, I.3) I.EFL.3.7.1.	 Ringmaster Booming Fierce Sparkly Silly Tricks Tamer Fountain Pond Brave 	
KOLB Learning Cycle (ERCA)				
Experience	Reflection	Conceptualization	Application	

Warm up: Have	Before	Ss read the book in	Note: In canva,
you ever been to	reading.	silence and aloud.	students have to
you ever been to	Prediction: -	Locate-Add: Highlight	make a record a
a circus? What	Teacher	new vocabulary and add	video reading the
did you see	provides a	new information.	book.
did you see	mind map.	- Ss answer the	
there?	- Ss brainstorm	following questions:	
	ideas about the	What was the circus	
	book based on	name?	
	the pictures.	Where did the elephant	
	-Ss write down	run?	
	ideas and	How did the elephant	
	answer some	help the little boy?	
	questions.	Why did the elephant	
	-	felt happy to be out the	
		circus?	

TASK 1.

Write a story. Teacher has to write out a short sentence on the board, like "In the circus we can see different shows." Then the students have to continue with the story, adding their own sentence, make sure that everybody participate. When they finish, prompt them to read aloud and write down in their notebook.

TASK 2.

In pairs, teacher provide a picture of the reading story, then students have to look and describe it in their notebook. After that, invite students to make predictions about what the reading is about.

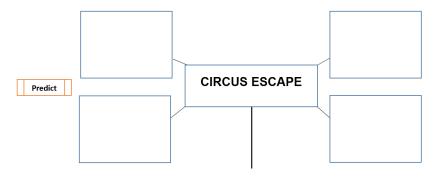
Figure 15: Picture



Source: This resource is © copyright British Council, 2017

Author: López, M (2022)

Figure 16: Mind map

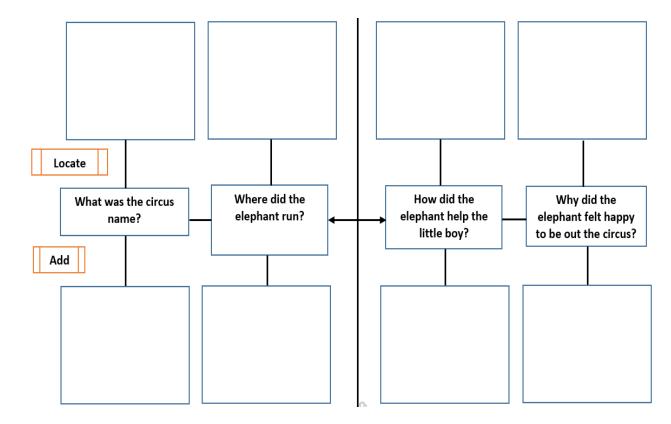


Author: López, M (2022)

TASK 3.

Teacher invites students to read the story, encourage them to highlight new vocabulary words in the text. After that, prompt students to locate the answers to the questions below. Take into consideration that this activity have to be developed individually. When they finish, join them in pairs and invite them to compare their answers.

Figure 17: Mind map



TASK 4

In groups of 4 or 5 students, they have to create four new questions about the reading "Circus" and they have to research the answer to those inquires. Once they are done with them, suggest pupils that, to collect that information, they could ask for help to other English teachers, use internet or other useful recourses. Finally, with those responses, mix the groups and encourage students to share their questions and answers. Through this activity, they could have an ample range of knowledge about the topic.

TASK 5

To finish with the whole mind map, students have to answer 4 last inference questions. Those inquiries should be prepared for the teacher and ask students to solve them individually. Encourage students to think logically to avoid foolish responses.

Figure 18: Mind map

	1. Why did the ringmaster use a booming voice?
	2. Where did the story unfold?
Note	3. Why did Minny run to the fountain?
reated by: ópez M. (2022)	
	4. For you, what does it mean? "He put his head in the biggest lion's mouth"

Task 6

Explain students that they have to record a video reading the book. Provide enough information about how to use Canva.

Book 5 Critical Thinking Test

- 1. What does "his" refer to in the following sentence "he put his head in the biggest lion's mouth"
 - a. Billy
 - **b.** The little boy
 - **c.** The elephant
 - **d.** The lion tamer
- 2. What does they refers to "They flew through the air"
 - **a.** The lions
 - **b.** Billy and the elephant
 - **c.** The balancing people

- **d.** The ringmaster
- 3. What does small one refers to "The small one balanced on one leg"
 - a. The clowns
 - **b.** The lions
 - **c.** The elephant
 - **d.** The audience
- 4. What does it refer to "There was a red light all around it"
 - **a.** A circus
 - **b.** The town hall
 - **c.** Police station
 - **d.** A house
- 5. Why did the ringmaster use a booming voice?
 - **a.** To make people stop talking.
 - **b.** To catch people's attention.
 - **c.** To sing a song to the people.
 - **d.** To give people a speech
- 6. Where did the story unfold?
 - a. The town haul
 - **b.** Billy's house
 - **c.** The circus
 - **d.** The park
- 7. What was the main idea of the story?
 - **a.** How funny was the clowns
 - **b.** How Minny planned to escape
 - **c.** How brave Minny was
 - **d.** How interesting the circus show was
- 8. Why did Minny run to the fountain?
 - **a.** Because she wanted to take a shower.

- **b.** Because it was a rainy day
- **c.** Because it was a sunny and hot day.
- **d.** Because she wanted to play alone.
- 9. Why did the author mention "It felt good to be free"
 - a. To show Minny's behavior
 - **b.** To show Minny's feelings
 - c. To show Minny's schedule
 - **d.** To show Minny's new trick

10. Why did Minny not want to escape again?

- **a.** Because she felt angry
- **b.** Because she felt lonely
- **c.** Because she felt happy
- **d.** Because she felt at home

BOOK 6

Table 11: Lesson Plan - THE RAMADAN LANTERN STORY			
PDF Link: https://learnenglishkids.britishcouncil.org/sites/kids/files/attachment/short-stories-the-ramadan-lantern-story-transcript.pdf Objective Materials Indicator Vocabulary			
Create personal stories by adding imaginative details to stories and situations, using appropriate vocabulary and elements of the literature learners have read. EFL 3.5.4	Book Mind map	Create personal stories by adapting elements of literary texts and adding imaginative details to stories and situations, using appropriate vocabulary and features of the literature learners have read. (I.3, S.3) I.EFL.3.22.1.	 Caliph Ghoul Sneak Plead Growl Shahabad Ledge Fasted

KOLB Learning Cycle (ERCA)			
Experience	Reflection	Conceptualization	Application
Warm up: Have you ever heard of the holy month of Ramadan?	reading. Prediction: - Teacher	Where did the Caliph find his son? How did the young prince celebrate the holy month of Ramadan?	new ending for the story and share it

TASK 1

Play charades ESL game. First, teacher has create some cards with vocabulary or sentences to review, then he divides the class in teams. One student from each group has to take one card and they have to act out as many as they can while their teammates guess. The team who has more guesses is the winner. This is an interactive game for helping to develop learners' vocabulary and check prior knowledge.

Table 12: Vocabulary cards.

Prince	Jail	Fantasy
Princess	sadness	Love
Castle	Fairy tale	Religion

Author: López, M (2022)

TASK 2

Teacher has to give a brief explanation about the story elements. Then ask students to predict each element and write down their ideas in the mind map.

Table 13: Story elements

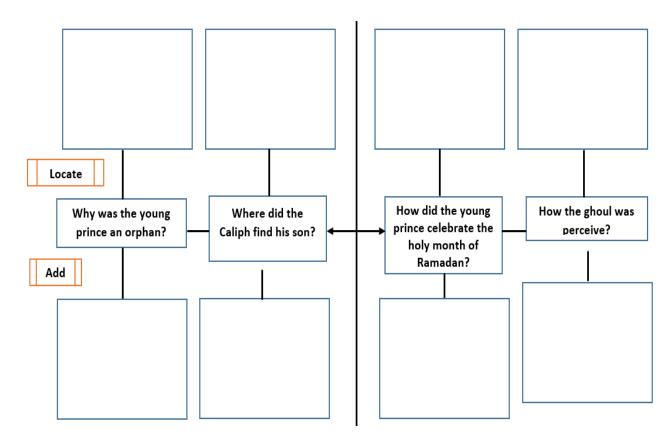
Story Element	
Plot	Settings
It refers to what is going to happen in the	Where and when will the story take
story?	place?
Characters	Conflict
Write down how many characters and	Describe the problem and how is it going
their features.	to be solved.

Author: López, M (2022)

TASK 3.

Teacher invites students to read the story, encourage them to highlight new vocabulary words in the text. After that, prompt students to locate the answers to the questions below. Take into consideration that this activity have to be developed individually. When they finish, join them in pairs and invite them to compare their answers.

Figure 19: Mind map



TASK 4

Students have to add information, related to those questions. In pairs students discuss those inquires and look for another possible and logical answers. In this activity, they could analyze, interpret and deduce new information. Finally, join students into groups of 4 and prompt them to share their ideas.

TASK 5

To finish with the whole mind map, students have to answer 4 last inference questions. Those inquiries should be prepared for the teacher and ask students to solve them individually. Encourage them to think logically to avoid foolish responses.

Figure 20: Mind map

	1.	Who was the princess in the story?
	2.	What was the main idea of the story?
Note		
	3.	Why was the ghoul touched by the Caliph's actions? Because
Created by: López M. (2022)		
	4.	Why did they call it the Holy month?

TASK 6

Create and write a new ending for the story, then share it with the class.

Book 6 Critical Thinking Test

- 1. What does "I" in this phrase refer to "I was mistaken"
 - **a.** The princes
 - **b.** The ghoul
 - **c.** The caliph
 - **d.** The young prince
- 2. What does they refers to "So they both ran away"

- a. The caliph and his wife
- **b.** The young prince and the pigeon
- **c.** The bad ghoul and caliph
- **d.** The princess and the young prince
- 3. What does he refers to "He knew that he had to follow the pigeon"
 - a. The young prince
 - **b.** The princess
 - **c.** The caliph
 - **d.** The ghoul
- 4. What does everyone refers to "Everyone in the palace held a candle"
 - a. People from the palace
 - **b.** People from the ghoul's house
 - **c.** People from the village
 - **d.** People from the princess home
- 5. Why was the ghoul perceived as bad? Because...
 - **a.** He was kind and welcoming
 - **b.** He didn't clean his palace
 - **c.** He kept the young prince as a prisoner.
 - **d.** He wanted to be a prince
- 6. What does this phrase mean "Fasted together on the first day of Ramadan"
 - **a.** The caliph and young prince ran together.
 - **b.** They pray together.
 - **c.** They didn't eat anything that day.
 - **d.** They have a big feast to celebrate
- 7. What does the Caliph and the young prince celebrate Ramadans?
 - a. To clear their bodies
 - **b.** To clear their souls
 - c. To clear their minds

- d. To clear their lifes
- 8. Who was the princess in the story?
 - **a.** The young prince aunt
 - **b.** The young prince friend
 - **c.** They young prince grandmother
 - **d.** The young prince enemy

9. What was the main idea of the story?

- **a.** The friendship of our pets
- **b.** The relationship with enemies
- **c.** The parents true love
- **d.** The fear of being jailed

10. Why was the ghoul touched by the Caliph's actions? Because...

- **a.** He show love towards his son
- **b.** He was so happy for her wife
- **c.** He wanted to fight the ghoul
- **d.** He didn't want to help his son

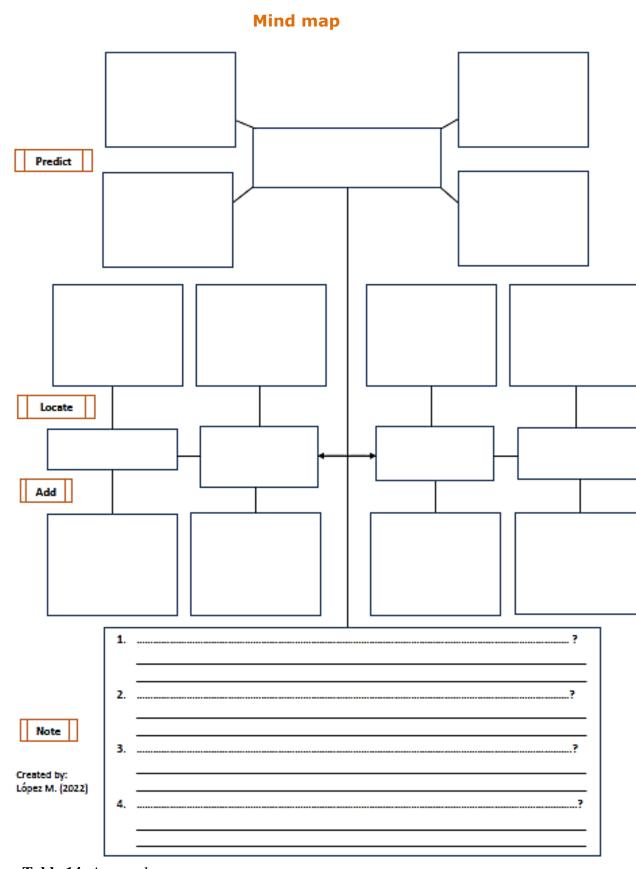


Table 14: Answer key

TEST ANSWER KEY

BOOK 1		ВООК 2	
Brad Needs a Budget		Fishing with Grandpa	
1. c	6. d	1. c	6. C
2. b	7. a	2. c	7. b
3. d	8. c	3. d	8. a
4. a	9. c	4. b	9. b
5. b	10. b	5. d	10. b
воок з		ВООК 4	
Jane Goodall		The Story of the Mayflower	
1. b	6. c	1. b	6. C
2. a	7. a	2. d	7. a
3. d	8. b	3. a	8. b
4. b	9. d	4. d	9. b
5. b	10. b	5. b	10. a
ВООК 5		воок 6	
Circus Escape		The Ramadan Lantern Story	
1. d	6. a	1. b	6. C
2. c	7. c	2. b	7. b
3. c	8. C	3. c	8. a
4. d	9. b	4. c	9. c
5. b	10. a	5. c	10. a

Acknowledgements.

The author of this didactic guide "PLAN Reading Strategy" would like to thank the teacher for the support and students for encourage teachers to become better professionals every day.

References

Khoirunnisa, n. (2019). The effect of using predict, locate, add, and note (plan) strategy on students' reading comprehension of explanation text of second grade students at ma darul huda wonodadi blitar.

Garzón, I., Garzón, C., González-Andrades, M., Carriel Araya, V. S., Martín-Piedra, M. Á., Campos, A., ... & Rodríguez, I. (2013). Developing a practical guide for teaching histology: an evaluation of the didactic components. In *5th International conference on Education and New Learning Technologies* (pp. 5627-5633). International Association of Technology, Education and Development (IATED).

Sarode, R. D. (2018). Teaching strategies, styles and qualities of a teacher: a review for valuable higher education. *International Journal of Current Engineering* and Scientific Research (IJCESR), 5(5), 57-62.

Moore, A. L. (2015). Reading Comprehension. A Research Review of Cognitive Skills, Strategies, and Interventions.

Kolb, A., & Kolb, D. (2018). Eight important things to know about the experiential learning cycle. *Australian educational leader*, 40(3), 8-14.

Celik, B. (2017). Task-Based Learning: An Effective Way of Developing Communication Skills. *International Journal of Social Sciences & Educational Studies*, 4(2), 104-108.

Mead, J., Gray, S., Hamer, J., James, R., Sorva, J., Clair, C. S., & Thomas, L. (2006). A cognitive approach to identifying measurable milestones for programming skill acquisition. ACM SIGCSE Bulletin, 38(4), 182-194.

Laal, M., & Ghodsi, S. M. (2012). Benefits of collaborative learning. Procediasocial and behavioral sciences, 31, 486-490.