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ACTIVIDAD DE TITULACIÓN

THE EFFECTS OF GRAPHIC NOVELS TO IMPROVE READING SKILLS ON EFL
STUDENTS.

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Abstract

Reading comprehension is a fundamental yet challenging skill for learners of English as a Foreign Language (EFL), particularly in Chile, where national assessments reveal persistently low performance in this area. This study investigates the potential of graphic novels as an innovative instructional tool to enhance reading comprehension and vocabulary acquisition among 10th-grade EFL students in a subsidized school in Santiago. Adopting a quasi-experimental design, the research compares two groups: a control group exposed to a traditional textual novel and an experimental group engaging with a graphic novel adaptation of *Alice in Wonderland*. Both groups completed pre- and post-tests to assess progress in reading comprehension and vocabulary.

Statistical analysis using paired t-tests and non-parametric tests indicated no significant difference in outcomes between the two groups, suggesting that while graphic novels may enrich visual literacy and student engagement, they do not universally enhance reading comprehension. This finding highlights the importance of factors such as prior knowledge, student motivation, and the cognitive demands of integrating visual and textual information.

The study underscores the nuanced role of multimodal texts in EFL education and recommends further exploration of strategies to optimize the integration of graphic novels, including training students to decode multimodal content effectively and tailoring material to their interests. By addressing these variables, future research may better elucidate the conditions under which graphic novels can be most beneficial in educational contexts.

Keywords: Graphic novels, reading comprehension, vocabulary acquisition, EFL, multimodal, learning, educational tools, secondary education.

Introduction

Research Background

English as a foreign language (EFL) instruction is increasingly prevalent in Chilean classrooms. To contribute to the acquisition of this target language, students are exposed to the four English skills in the classroom; these are reading, listening, speaking, and writing. Reading comprehension is one of the most important English skills, and as stated by Gilakjani & Sabouri (2016), the main purpose of reading comprehension is to help students improve their English skills. It is through reading that one can acquire vocabulary and learn grammatical structures; however, it is one of the most challenging skills for Chilean students when faced with activities where it is present. This previous statement is based on the results published by SIMCE in 2017, reading comprehension was the skill with the lowest score in this entire process, obtaining 22 points as a national average out of 100 points. These results reveal challenges in reading comprehension across Chilean high schools; this study aims to understand how graphic novels can specifically address these difficulties by engaging students with contextual imagery and narrative structure.” On the other hand, as mentioned by Kuzemi (2021) reading is a source of information and it is a target of language acquisition. It means that this receptive skill can help EFL students explore new vocabulary through reading, which helps them acquire newly discovered words that they can use to express themselves using different terms and expand their vocabulary base. Following this idea, Krashen (2004) points out that spending time on reading is better than focusing on learning specific vocabulary.

As mentioned before, reading is the skill with the most difficulty for Chilean EFL students. That means that the results of applying this skill are lower than expected by teachers, as the difficulty in reading comprehension would also transfer when students are learning a second

language. In this particular case, our main focus is to implement a new technique by using graphic novels as a helpful instrument to improve EFL students' reading comprehension. The use of images helps students to associate the meaning of the words with the picture presented and motivates them to read by having more pictures than words. Furthermore, research by Aldahas & Aktalhab (2020) suggests that the use of graphic novels not only broadens vocabulary acquisition but also enhances student motivation, which has been successfully implemented in classrooms with similar challenges in reading comprehension. At the same time, the use of graphic novels can be combined with reading for pleasure. This means letting students choose a novel according to their interests, so that they feel motivated while reading and better understand the main theme of the story. The pivotal role of graphic novels is focused on language teaching and learning, as well as enhancements in students' motivation (Aldahas & Aktalhab, 2020).

The study

This section presents the information respecting the specific issue this research project aims to address. It included the reasons why the specific issue was chosen, its significance, and the gaps it fills, as well as the question of the research and its general and specific objectives.

1.1 Problem statement

EFL high school Chilean students tend to perform poorly in reading comprehension activities. Data collected by the Sistema de Medición de la Calidad de la Educación (education quality measurement system) (2016) also known as SIMCE, showed that Chilean students do not perform well when it comes to reading comprehension test items. According to the study by Philominraj et al. (2021), teaching English to high school students is not an easy task and considering that students already have a low reading comprehension performance in their mother tongue, this problem might transfer when it comes to reading texts in English. When it comes to acquiring a new language, reading is an essential tool to acquire new vocabulary. As a consequence of insufficient exposure to reading materials and limited opportunities to practice reading, students lack motivation to read. Students do not perform well on reading comprehension tests, more innovative ways of reading have been implemented in reading activities, such as literature provided with visuals like graphic novels and comic strips (Efecioglu and Öz, 2015).

As stated in De Padua Nájera's paper "The performance of Chilean students, reading comprehension is a challenge". In this seminar, it is mentioned that PISA tests in Chile, which measure reading performance, have improved since the country's first participation in 2001, but most of that improvement occurred in the early period, between 2009 and 2018, and no significant trends in performance have been observed. Addressing this gap is essential for

Chilean English teachers, as it is through reading that students acquire more vocabulary, and consequently, improve their acquisition of a second language. By including graphic novels, or texts with pictures in the students' reading activities, the problem of reading comprehension that Chilean students face can be significantly addressed, and also, through pictures we hope to help them acquire a meaningful vocabulary when it comes to learning a second language and motivate them not only to read but also to learn English in a way that is more attractive to them.

1.2 Justification of the study

This study introduces the application of a new technique that involves students reading graphic novels to improve their reading comprehension skills. As teachers, it is necessary to seek strategies or methodologies that are effective in order to build meaningful learning for students. Graphic novels are presented for use in Chilean classrooms to encourage reading and to facilitate the reading comprehension of EFL learners. Implementing the use of this resource could generate a considerable change in the development of the receptive ability of tenth-grade students in a subsidized school. Because of this, students can apply these strategies to acquire the target language successfully. It is expected that the use of graphic novels in tenth-grade students will be successful in improving their reading comprehension skills. This is because through the images, they can infer the meaning of certain words and at the same time they will be able to better understand the main plot.

As mentioned before, this research seeks to improve the reading comprehension of tenth-grade students by using graphic novels. This tenth grade was chosen in order to test the improvement in reading comprehension through graphic novels, and thus be able to improve their performance in future standardized reading tests. Furthermore, the grade was chosen because it was the only higher level we had at our disposal. On the other hand, as already

mentioned, a few years ago a standardized test was conducted in 11th grade that showed low results in reading comprehension. For this reason, the purpose of this research is to apply a new technique in this skill that will allow them to practice, improve their performance, or help us to monitor their progress. Besides, the research is focused on checking the effects of this method to compare the difference between the use of pictured novels and non-picture novels.

1.3 Hypothesis

Based on pre- and post-intervention assessments, students' reading skills will increase significantly when using graphic novels instead of traditional novels. Students' exposure to colorful and entertaining images will improve their reading comprehension, which in turn will improve their overall literacy and language learning.

This hypothesis suggests that using Graphic novels, unlike traditional novels, contain images and texts that work together to enhance reading comprehension.

1.4 Research question

This study establishes the following research question:

Does the use of graphic novels have any effect on EFL learners' reading comprehension scores?

1.5 General objectives

1. To demonstrate whether graphic novels significantly improve EFL students' reading comprehension compared with traditional textual novels in MR, Chile.

1.6 Specific objectives

- To investigate whether graphic novels significantly improve high school students' reading comprehension, particularly in areas such as vocabulary acquisition compared with textual novels.

- To compare the reading comprehension scores of EFL high school students from MR in Chile after reading a graphic novel versus a traditional textual novel, using standardized comprehension tests to measure any statistically significant differences between the two groups.
- To use graphic novels to verify that they enhance the meaningful acquisition of second language vocabulary.
- To apply pre and post-tests to evaluate reading comprehension and vocabulary improvement when reading graphic novels.

Theoretical Framework

This section includes the theories and specific variables used to define the viewpoint of the study, and the roadmap that was taken to analyse the data that was collected.

2.1. Reading comprehension

Researchers have various definitions for reading and reading comprehension. McShane (2005) defined reading as a complex system that derives meaning from written texts that require decoding words, background and vocabulary knowledge, motivation to read, reading comprehension strategies, and how to relate sound speech to meanings. According to Lehr (2013), reading comprehension is constructing meaning through interaction and involvement with written language. This means that reading comprehension is an active process, the readers need to understand the text for this to be a useful and significant activity (Dahlana, 2016). Reading comprehension is to get meaning from written text, it is the major factor to arrive with the aim of reading comprehension and understanding the text well. Without comprehension, reading is nothing more than looking at the symbol with your eyes.

Reading is a meaning-making process with psychological, linguistic, and social dimensions. Many studies show that for second and foreign language learners, reading is a key strategy for accessing a variety of text resources (Day and Bamford, 1998; Dreyer and Nel, 2003; Fasting and Lyster, 2005; Linch, 2000; Nicolson, 2000 as cited in Sung and Ting, 2017). Through reading, learners can understand the meaning of vocabulary in context, grammar, textual structure, and syntactic composition. Other scholars define reading as “a meaning-construction process that enables one to create carefully reasoned as well as imaginary worlds filled with new concepts, creatures and characters” (Ruddel and Unrau, 2004, p. 1462).

Furthermore, reading comprehension is one of the four English skills that are part of the process of learning a second language, and for some students this specific skill results in the most complex one. At the same time, reading plays an important role while studying being EFL learners because as mentioned by Gilakjani & Sabouri (2016), reading comprehension helps students to decode text, analyze, explain, and express their own ideas about written materials. In other words, it is helpful to understand different kinds of texts, novels among others, so in that way, students would be able to interpret in their own words the main meaning of the texts given or presented. Besides, this English skill is useful for learners to know more vocabulary and to recognize some grammar structures. In teachers' context, using reading in their classroom can be a good tool to present vocabulary about specific contents or topics that are related to the units proposed by the MINEDUC.

2.2 Dual Coding Theory in Reading

Dual Coding Theory was initially a cognitive theory, but later it was expanded to reading by Sadoski and Paivio. Sadoski and Paivio (2004) stated that the theory offers a comprehensive explanation for decoding, comprehension, and response whereas other theories do not usually give attention to all these facets of reading. They explained that the reading process consists of the stimulus which is defined by characteristics of the text and individual differences that encompasses one's ability in reading, schemata, instructions, and others.

Representations are activated based on the stimulus and individual differences in readers. This is because different individuals read with different intensity and elaboration in accordance with intentions as well as being affected by individual differences (Sadoski and Paivio, 2004).

Referring to the definition of reading comprehension provided in the earlier section, it is agreed that the construction of meaning is influenced by one's background knowledge and

experience as what Dual Coding Theory highly emphasizes. The role of background knowledge is important to activate logogens and images that a lack of it may cause difficulties in rendering the meaning of words or images being represented.

A fundamental factor in reading comprehension proposed by Dual Coding Theory is the concreteness of language. Mental images can be activated via the presence of concrete language through referential and associative activations while abstract language, on the other hand, has less admittance to the imagery system. Sadoski and Paivio (2004) stated that comprehension is often depthless due to factors of time, requirement, and capability to make the reading more detailed.

Memory in reading, according to Dual Coding Theory, is enhanced when dual-coded representations work together in reading. Affect, being one of the nonverbal stimuli, plays an exceptional role in recall. Sadoski, Paivio, and Goetz (1991) in their critique of Schema Theory made clear that Dual Coding Theory has the potential to account for effects that schema theory lacks. Imagery and affect are stated to be theoretically linked. A study on the burglar/homebuyer passage was cited and it was found that the information pertaining to the burglar's viewpoint was recalled better than the homebuyer's viewpoint. They presumed that readers were emotionally affected when they read the text from the burglar's viewpoint which made the recall better. Thus, in the present study, it is assumed that ESL learners will remember the story better depending on the effect that the texts, either text-only novels or graphic novels, arouse.

Additive effects of verbal and nonverbal codes are undeniable as results of studies done by Paivio (Paivio, 1974 and 1975 as cited in Paivio, 1986) proved that pictures and words have an additive effect that is unequal in distribution, in which pictures are double in the contribution. The independence of verbal and nonverbal codes has a significant implication in memory as

“dually coded items will be remembered better than unitarily coded items” (Paivio, 1986, p. 142).

The relationship between memory and reading comprehension does exist as stated by Min Jin (2014) that working memory capacity in a second language could be an indicator of second language reading achievement together with other factors such as vocabulary and grammatical knowledge in a second language based on research findings.

2.3 The role of images while reading a text

Images play an important role in reading comprehension. Carantes and Delos Reyes (2021) state in their paper that authentic materials are indispensable in the language classroom to help students understand and remember what they read. The existence of images can help readers construct meaning and activate their prior knowledge (Crudo, 2005, as cited in Carantes & Delos Reyes, 2021). Thus, according to Carantes and Delos Reyes (2021) reading is a process that is complete only when comprehension is attained.

An L2 learner comes across unknown words many times. As Carantes and Delos Reyes (2021) pointed out, one of the most fundamental aspects of comprehension is the ability to deal with unfamiliar words encountered in text. Reading involves identifying and pronouncing words and associating their meaning with a text to construct meaning. The acquisition of a second language is also happening when reading. In Carantes and Delos Reyes's (2021) paper, it is also mentioned that there is a reciprocal relationship between what the reader sees (visual information) and the reader's knowledge of the world (non-visual information) (Smith, 1985, as cited in Carantes & Delos Reyes, 2021). As well, Boerma et al. (2016) highlight that it has repeatedly been shown that readers learn and understand more from a text when pictures are added, which has been referred to as the “multimedia effect”.

The role of images in reading comprehension is crucial; therefore, integrating graphic novels into EFL instruction serves as a bridge between vocabulary acquisition and contextual understanding, enhancing the overall learning experience. Pictures can facilitate the creation of a mental representation as well, as they can clarify implicit or unclear relations in the text (Boerma et al., 2016). Carantes and Delos Reyes (2021) emphasize that humans are typically very visually oriented, and the retention of the information presented in the visual form usually exceeds the retention of the information presented verbally. In addition, it is claimed that adding pictures to a text result in deeper learning (Boerma et al., 2016).

2.4 Graphic novels

In the mid-70s, graphic novels were first introduced as a new form of literature. This immediately caught the interest of both young and adult readers because of its comic resemblances but on a different level.

According to Eisner (2002), this was a newly emerged category of illustrated reading material. The term basically referred to “graphic” in reference to appearance and “novel” because of its length and content. Therefore, graphic novels, as what is known, are simply understood as book lengths illustrated in comic style. Later, it was defined by him as “sequential art” to describe the graphic novel in application to what he authored and published to reach a wider audience.

Crawford (2003) used the term sequential art to describe the graphic reading material as a series of illustrations that, when viewed in order, tell a story. Since then, numerous readers have used the phrase to describe graphic novels. It is however noticeable that text presentation is less than just pictures in order. So, the understanding that graphic novels are just another form of

comic book is absurd. It is different from a typical comic book though they share a common platform.

For the past decade, according to The American Library Association and Comic Book Legal Defense Fund (2006), graphic novels were gaining the respect of reviewers, librarians, museums, and academics and have been garnering literary awards. Readers across ages were drawn to read these types of books. It parallels the basic understanding that the contemporary communication landscape is indisputably a visual one. And with much written on the responsibility of educators to address the diverse literacy needs of the young inhabitants of this landscape – those who might best be described as a generation born and raised on a diet of visual media.

Graphic novels are supported and considered as one of the fastest-growing categories of books by readers as mentioned Frey (2010). On the other hand, McCloud (2000) described it as a complete and extended comic's narrative, where comics are defined as juxtaposed sequential art. It is justified that a graphic novel appears as comics, for it can be published in different formats: the comic strip, the comic book, and the graphic novel. Further, a comic strip usually consists of a very short and simple narrative in terms of plot and character analysis, which is told in horizontal blocks of three to five panels. In a similar way, a comic book stretched comics into a magazine of twenty (20) to forty (40) pages. This narrative is completed, but often is serialized with a continuity plot.

It was analogized that graphic novels are comic books on steroids. He also explained it overtakes comic books in length, presentation, and content. Basically, it consists of one complete extended narrative, a compilation of previously serialized narratives with illustrations usually containing stand-alone stories with complex plots. The extended length allowed it to be “deep

and meaningful” as in words and dialogues. Further, it was a literary category that can be fictional and non-fictional from drama to comedy and from tragic to science fiction. It covered a wide range of genres that can be delivered through paper or electronic platforms.

He stressed that graphic novels are recognized as a supportive medium for visual learners since they link images with texts to increase comprehension. Thus, through visual representation, textual dialogues are easily understood by the readers. This implies that decoding textual meaning is easy because of visual representation including unfamiliar vocabulary because of its scaffolding effect of the visual context clues. Meaning to say, all textual codes have image illustrations. Reluctant learners would need this sort of reading material to boost their reading skills.

Goldsmith (2005) affirmed that these are undoubtedly fun to read. It is reasonable to give students the opportunity of extensive reading. It would be unrealistic and unwise to force somebody to read a text that does not appeal to his interest. Further, these kinds of reading materials certainly appealed to the senses of visual learners. It is because young learners were more exposed to illustrations so they could learn better. These are accepted and recognized as a bridge for the transition to written texts.

Setting the difference between graphic novels and comic books, Griffin (1998), differentiated graphic novels as self-contained stories, printed with a heavy paper cover and better-quality paper. Moreover, these are lengthy and sequential illustrated books. On the other hand, the latter are short narrations of events. So, comic books and graphic novels are stories told with text and pictures, but the first tends to be ongoing stories, while the latter is usually “self-contained.”

Ray (2010) contended that genres of comic books and graphic novels vary. She further explained that these can be superhero stories, manga, war, romance, horror, crime, jungle stories, scientific fiction, adventures, and nonfiction graphic novels. She added superhero stories and manga were well-known genres. Even though graphic novels' definition is understood differently by readers and writers, it is a fact that some define these focusing only on the length of the narrative, whilst on the basis of others relies on publishing specifications such as paper weight and binding. She expounded that others restrict their definitions to its aesthetic form while some reject even the term, claiming it as an attempt to legitimize the format by divorcing it from the comic books. Laycock (2006) pointed out that it is necessary to ensure common ground to the definition of graphic novels through similarities of their description.

2.5 Graphic novels as a teaching tool

Although there has been a surge in the production of graphic novels in recent years, there are educators who are unsure of the role of graphic novels in the classroom or school library. Due to this discourse in the education community, several researchers have documented the benefits of the use of graphic novels in the classroom for students of all ages. Students see greater success when they are offered multimodality texts because they are exposed to them outside of school (Hughes, 2011). More research has been conducted recently with a heavy influence on visual literacy and the importance of visual literacy for communication (Hughes, 2011).

Brozo (2014) provided guidance for teachers using graphic novels in their curriculum. Brozo also emphasizes how graphic novels fit into 21st-century teaching while providing many examples of how graphic novels can support students who are more likely to have a cell phone in their hand than a book. Guidance for implementing graphic novels to teach history, math,

economics, science, and of course language arts has been highlighted by Brozo. This author was not the only one to provide examples of how graphic novels can be used to teach multiple content areas. Other authors have provided guidance on the use of graphic novels in teaching. For example, Carano and Clabough (2016) used graphic novels to teach human rights and provide examples of social and emotional lessons. The visual art provided in graphic novels supported students' understanding of emotion and made an impactful lesson for the students (Carano, 2016).

In addition to Bonzo's guidance on how to use graphic novels for all content areas, there are also authors who provide guidance on teaching language arts skills with graphic novels. Boerman (2020) shared that Shakespeare wrote complex plays to be seen and not read alone, and for that reason, we should be using graphic novels in the classroom to teach literacy. He urges teachers to take a static format of literature works and pair them with a visual format to help their students visualize complex writing (Boerman-Cornell 2020).

To gauge the perceptions of graphic novels among educators, Block (2013) conducted a survey. Block surveyed 75 elementary teachers and 26 language arts teachers in middle school settings. The results of the survey showed that teachers were willing to use graphic novels in their classrooms. There was a mixed result indicating that some teachers were already using them, but some were not, and this was due to a lack of knowledge. The teachers also responded with a variety of opportunities to use graphic novels in their class, such as supplemental reading, motivation for readers, and assisting struggling readers. The study proved that graphic novels are welcome in the classroom for various reasons, and teachers need more information about how to use them. The literature indicates that some teachers simply do not know enough about how to use graphic novels or how graphic novels can support their students.

2.6 Graphic novels for supporting reading comprehension

The popularity of the aforementioned graphic novels has also been used to support reading comprehension for students. For example, a study by Hughes et al. (2011) used a two-case study research design among two groups of students ages 15-17. The authors implemented the use of graphic novels among two groups of adolescents to study the building of literacy skills such as reading comprehension. Outcomes not only were effective but indicated the importance of graphic novels for several reasons. First, the ability to create and write as a model for students has been shown as a benefit of graphic novels. Students in this study were successful due to their chance to write and create an autographic. In addition, the creation of their own graphic novel showed skill practice for other literacy skills and created higher engagement. Engagement and motivation are reoccurring discussions in reading and the use of graphic novels.

Additionally, Richardson (2017) conducted a study to test the use of graphic novels as compared to traditional texts for reading comprehension. The study used mixed methods research design and focused on 5th and 6th-grade students. Half of the students were given a traditional grade-level text, and the other half got to select one of 20 different graphic novels. Each group was given a reading comprehension test after completing their book. The results showed an increase in reading comprehension for the 6th-grade students and cited that student choice for their reading impacted this success. The study highlighted the importance of giving study choice for their graphic novel as it increased motivation and likely supported their increase in reading comprehension scores.

Another example of graphic novels to support reading comprehension came from Sloboda *et al.* (2014). This study used a qualitative case study to study the use of graphic novels for students' understanding of the text, and additional literacy skills. The study determined that

use of graphic novels for elementary students created an excitement for reading, which resulted in a better understanding, text awareness, task awareness, and overall comprehension. Similar to the above study by Richardson (2017) there is a motivation behind their reading that is supporting student success, and this motivation comes from graphic novels rather than traditional text. The Sloboda et al. (2014) study found that graphic novels could be an effective resource for elementary students.

2.7 Benefits of using graphic novels

The graphic novel has been useful in the education circle, especially in improving reading skills. As Edwards states “reading a graphic novel requires the reader to infer and construct meaning from the visual representations while using the text to develop not only meaning, but to foster comprehension” (Edwards, 2009, p. 56). Arguing that graphic novels have the potential in improving learners who are struggling with foreign language learning, the illustrations in the novels support readers by providing them with the necessary contextual clues that got to their senses through imagery.

Additionally, it also can be defined as “the simple sentences, visual or context clues, and educated guessing allow them to comprehend some, if not all, of the story” (Krashen, 2004, p.59-60). This scholar suggests that a taste for reading can be developed through reading light materials such as graphic novels. Similarly, Schwarz (2006), points out that graphic novels sharpen and deepen visual literacy. Another scholar maintains that a graphic novel is the combination of written text and visual literacy, including the visual symbols and short, that comics use to represent the physical world (Derrick, 2008). Graphic novels are also recognized as a very supportive medium for visual learners since they link images with texts to increase

comprehension (Hassett & Schieble, 2007). Also, students can find unfamiliar vocabulary items with the scaffolding effect of the visual context clues (Pennella, 2009).

Graphic novels are shorter and have more illustrations than words which may draw the students' curiosity so that they will approach the task more easily. This makes the student feel more engaged in the story. Therefore, raising curiosity through graphic novels has the potential to shape language learners in the understanding of the subject. This study would benefit the pupils in developing their reading skills. Firstly, reading graphic novels can tap into students' interest and can motivate them to read and write. Additionally, it would also motivate students to learn collaboratively with their peers. as well as planning effective lessons and integrating technology, and an effort to motivate students to read in English.

In the teaching and learning process, the teacher who can use the graphic novel competently in his/her classroom must be able to present opportunities to the students to understand the texts through multiple levels (Williams, 2008; Hoover,2012). The levels that can be considered include investigating the writer's intention, characters, and setting as well as the relationship between the words and images (Williams, 2008).

2.8 Graphic novels and their usage in English classroom

Graphic novels are original book-length stories or longer book-like comics (Yıldırım 2013). Graphic novels are produced in a vast range of genres, such as fiction, nonfiction, realistic fiction, historical fiction, adventure, horror, fantasy, history, mystery, and books about science (Jaffe and Hurwich 2018, Yıldırım 2013). Also, Lundahl (2021) points out the enormous range of graphic novels, from classics to modern comic books.

The stories in graphic novels are told by means of a combination of words and images, and Jaffe and Hurwich (2018) define graphic novels as bound texts composed in comic format –

where the story is told through both text and image. Notably, research has shown that illustrations and visualization aid memory and comprehension, which is to say that readers process visual content faster than verbal content (Jaffe and Hurwich, 2018). As graphic novels are told in boxes or panels arranged in sequences, they therefore provide an excellent tool in this learning process (Jaffe and Hurwich 2018). Consequently, graphic novels are great tools to boost the left-to-right sequence needed for reading.

In addition, studies have shown that literature provided with visuals, such as graphic novels and comic strips, has a positive outcome and an effective role in language learning (Efecioglu and Öz, 2015). They possess the power to enhance foreign language learning in pupils who struggle with the learning of a foreign language (Efecioglu and Öz 2015). Furthermore, Pishol and Kaur (2015) highlight the enormous influence graphic novels bring to foreign language learners. The use of graphic novels can lessen the anxiety of learning a foreign language, and the use of visuals in graphic novels makes the process easier (Pishol and Kaur 2015). The combination of text and visuals often makes it easier for the pupils to connect with the themes of the stories (Jaffe and Hurwich 2018, 5). Graphic novels engage the communication between images and text and will help the pupils understand what they are reading (Jaffe and Hurwich 2018). The illustrations provide necessary contextual clues to the text (Efecioglu and Öz 2015). Graphic novels are an excellent tool to deepen the pupils' commitment and desire to read. Lundahl (2021) claims that graphic novels have a special potential when it comes to pupils with a lack of ability or interest in reading. He points out that the strong stories, the great dialogues, and the interaction between text and image in graphic novels provide an excellent tool for English teachers. Jaffe and Hurwich (2018) agree with this statement, as the detailed images help the readers to decode the text, and therefore enhance comprehension, as the format of image

and text makes the reading more appealing. Yıldırım (2013) points out that the combination of word and image provides a helpful tool to visual learners, even a pupil who is just beginning to read can understand 60-70 % of the story just by looking at the pictures. Therefore, according to Yıldırım (2013), graphic novels offer the opportunity for weaker readers to get acquainted with complex works of literature that they would otherwise not be able to read. Graphic novels generally provide a wider range of vocabulary than traditional chapter books and the words used in graphic novels are often of a more complex nature than words used in traditional books (Jaffe and Hurwich 2018). Yıldırım (2013) claims that pupils with linguistic intelligence find graphic novels to be stimulating and that they enhance vocabulary development as well as critical thinking skills. Jaffe and Hurwich (2018) highlight the fact that graphic novels offer a different kind of reading experience for skilled readers, as they use both strategically selected words and images to tell the story. Efecioglu and Öz (2015) as well as Merç (2013) conducted studies that showed an increased reading comprehension in the experimental groups that used comic strips or graphic novels. In addition, graphic novels have also been found to motivate reading, increasing the number of books pupils read, and developing the pupils' vocabularies, as they come across words that are new to them (Jaffe and Hurwich 2018).

2.9 Reading as a means for language acquisition

One of the methods of language acquisition is through reading, and, as AlKilabi's investigation states, the student's ability to read is correlated to their proficiency level in the target language they are learning (2015). Whether it is in texts, novels, news, comics, graphic novels, articles, or even short notes, we encounter different vocabulary and jargon corresponding to the language being learned. Accordingly, in Alkilabi's study, it was also stated that good

readers were better users of the dictionary, derived meanings of words from the context, and contributed to the main idea of the text better than poor readers did.

When we are confronted with a specific reading, new vocabulary, and grammatical rules are introduced. It is through reading that we face new words that would be key to broadening our knowledge of the target language, and about this, Alkilabi (2015), also came to the conclusion in his investigation that good readers are high achievers in the target language they are studying.

As well as reading, it is a means for language acquisition, as it broadens vocabulary and understanding of the target language itself, 'deterioration occurs in second language acquisition without reading' (Jacob, 2016). Reading is one of the most important of the four English skills, and, as concluded in Jacob's (2016) investigation, once a student improves their reading ability, they can also speak and write better in the target language being studied. Jacob also states that it is through reading that students can develop other skills that can help them in their language acquisition (2016).

Methodology

This section describes the methodological approach used to address the research questions in this study. A quantitative research design was chosen as it offers a systematic method for measuring variables and identifying relationships through statistical analysis (Creswell & Creswell, 2018). This approach enables the collection of numerical data, ensuring objectivity and reliability, which are crucial for accurately answering the research questions. Additionally, quantitative research allows for the analysis of substantial data sets and the identification of significant relationships between variables, facilitating comparisons and providing strong evidence. As Creswell (2013) notes, this method incorporates strategies of inquiry such as experiments and surveys, utilizing predetermined instruments to generate statistical data. In essence, it focuses on gathering information in numerical form using quantifiable methods.

The following subsections detail the population, sampling strategy, data collection, instruments, procedures, and statistical techniques employed in the analysis.

3.1 Sample

The sample of this investigation was from a subsidized private school located in El Bosque, Santiago, Chile. Students were selected from 10th grade therefore they are around 15 to 16 years old, and in total 48 adolescents participated. Most of the students have an A2 level in speaking, reading, writing and listening despite having 4 hours of English classes per week. The socioeconomic level of students is positioned at 86% of vulnerability.

3.2 Sampling Procedure

This study employed a non-probabilistic sampling method, specifically convenience sampling, as it is more practical and relies on non-random selection criteria. Consequently, the

sample will not be randomly selected by the researchers. According to Golzar *et al.* (2022), convenience sampling offers several advantages, including reduced effort in participant selection, lower costs, and time efficiency. This sampling, as described by Lamm (2019), is not random, and the people involved participated willingly in the investigation (p. 54). The sampling was chosen based on convenience, and as stated by Hossan (2023) it is “this kind of sampling where the researcher pays attention to people who are most convenient to contact or coincidentally interact with during a specified time frame for their study’. Our participants were chosen because we had better access to them, and they willingly participated in the study.

Our investigation was conducted in two tenth-grades, A and B, from a subsidized private school between September and October of 2024. The tenth-grade A had to read a traditional novel, whereas the tenth-grade B read the same novel but with images included. The latter group mentioned was the experimental group. However, in both groups, the same topics were investigated, which are student’s reading comprehension skills and vocabulary acquisition of a second language. The independent variable is the use of graphic novels in schools to enhance reading comprehension and vocabulary acquisition, while the dependent variable is the result obtained per group of students.

3.3 Data collection methods

In order to carry out the objectives of this research, data collection was implemented to have empirical details about this study. Therefore ‘data collection is defined as the process of gathering, evaluating, and analyzing precise understandings for research using typical authenticated methods’ (Mazhar, p. 6, 2021). For this reason, pre and post-test were designed to be the tools to collect information during this research. The goal of these tests was to provide us with information about the intervention conducted to answer this study’s hypothesis.

3.3.1 Pre-test

First of all, before starting with the reading, a pre-test was applied in order to verify the students' level of reading comprehension at the moment of starting the study. For the pre-reading test, the A2 preliminary test for students (2020) from Cambridge was used. In addition, with the pre-test students were placed into a CEFR level of English.

In both lessons, the test for grades A and B was done during their school's anniversary week. For this reason, students were quite restless and eager to finish the test quickly, which directly influenced the results obtained.

3.3.2 Reading Comprehension Lessons

In Session 1 with the control group, the vocabulary of key terms was introduced as a pre-reading activity to support comprehension before beginning the text. During the reading, the teachers guided the students through a brief excerpt, reading aloud and prompting them to express their understanding. The students' attitudes varied significantly—while some appeared interested, others were less engaged. This variation could be attributed to the early hour, as it was the first class of the day, and the school's anniversary celebration, which caused frequent interruptions from inspectors and teachers. As a result, some students were more focused on the anniversary activities than on the lesson. Despite these challenges, the session was ultimately successful, as students were able to understand a portion of the text by the end. On the other hand, when they had Session 2 they started by doing a mini summary of the excerpt read in the previous class. This allowed us to check their understanding of what they had read so they could continue with the story. From that, the students voluntarily read aloud some excerpts together with the teachers. Once the reading was finished, a general summary of the story was made and the students worked on post-reading activities.

In Session 1 with the experimental group, the vocabulary of key terms was also introduced as a pre-reading activity to support comprehension before beginning the graphic novel. The reading dynamics were similar to those of the control group. The graphic novel was read together with the students, the reading was commented on to check their understanding, and they were asked what was happening in the images in order to obtain more information. In this opportunity, the students' attitudes also varied significantly because some appeared interested, and others were less engaged. This could be attributed to the early hour, as it was the first class of the day, and the students did not know anything about the story of Alice in Wonderland. Once the reading was finished, a general summary of the story was made and the students worked on the same post-reading activities which helped them a lot to reinforce what they had read.

3.3.3 Post-test

The post-reading test was created following two of Bloom's taxonomy stages. This was because the purpose of the post-reading was to evaluate the effectiveness of the new technique used for the students. This taxonomy points to the fact that "each level of knowledge can correspond to each level of cognitive process, so a student can remember factual or procedural knowledge, understand conceptual or metacognitive knowledge, or analyze metacognitive or factual knowledge" (Mohammad, 2016, p.2). Furthermore, according to Anderson *et.al* (2001) meaningful learning provides students with the knowledge and cognitive processes they need for successful problem-solving' (p.2).

It is important to mention that students were aware beforehand that they would get a grade. Moreover, the data gathered from the pre- and post-tests were organized into tables to display the numerical outcomes of the study and to evaluate them based on achievement and

improvement levels in both groups. This analysis was further supported by statistical software to provide scientific evidence confirming the validity of the study.

The research utilized SPSS, which is the abbreviation of “Statistical Package for the Social Sciences”, and it was created for the statistical analysis and management of social science data, and it is widely used by different researchers for complex statistical analysis. The importance of using this software lies in its ability to ensure reliable data-driven arguments. Statistical analysis enables the evaluation of claims based on quantitative evidence, helping to distinguish between objective, scientifically supported conclusions and subjective or questionable interpretations.

To organize the data entered into the software, it was necessary to establish the variables of the experiment, which were the independent variable: the use of graphic novels, and the dependent variable: EFL learners’ reading comprehension scores.

The research used a 95% confidence level, equivalent to a 0.05 significance level.

Whenever data are entered into the statistical tests, the p value must be looked at. If this value is less than 0.05, the null hypothesis (H0) established in each test is rejected and the alternative hypothesis (H1) is corroborated. Otherwise, if the p value is higher than 0.05, it means that there is no evidence to reject the null hypothesis, so the alternative hypothesis is rejected instead.

3.4 Research design

This study used a quasi-experimental design involving a pre-test and post-test control group. The study split participants into two groups: one read a graphic novel, while the other read a traditional novel.

Both groups received the same amount of instructional support and reading time during a set period for the intervention. Pre-tests determined initial understanding levels, and then post-tests assessed differences following the intervention.

Information gathered from both assessments was evaluated to assess how successful graphic novels are in improving reading comprehension. Statistical analysis was performed to evaluate any notable discrepancies among the groups.

This study seeks to offer an understanding of how graphic novels can enhance English reading comprehension, giving useful details for educators contemplating various teaching resources.

3.5 Dependent and Independent variable

In this research, our main purpose was to analyze and compare the results obtained between the dependent and independent variables.

The dependent variable is related to EFL students' reading comprehension performance, whereas the independent variable is concerned with the method used to improve their reading performance. The methodology chosen was to use graphic novels, which was applied if it had a significant and positive impact on the dependent variable, which is the EFL students' reading comprehension skills.

This method was chosen to see whether there was an improvement in the EFL students' reading skills and an enhancement in their vocabulary acquisition, and also contributed to a valuable technique that could help students improve their reading comprehension and significantly improve and facilitate the acquisition of a second language.

3.6 Procedure

The procedure designed to accomplish this research consisted of 4 lessons of ninety minutes each in which we intervened to apply the pre-test, vocabulary class, reading together, and finally the post-test. The lessons were carefully designed to cover students' necessities and give them all the necessary tools to bring meaningful learning and obtain good results. The lessons were based on comprehensible input (i+1) where "I" is the current level of proficiency and "+1" is the level of proficiency just beyond the learner's current level (ESOL CPD). In other words, we start from lowest to highest, adding a minimum level of difficulty between each lesson.

The experimental group which corresponded to 10th grade B was exposed to the following lessons:

1. First lesson: Students were able to develop a reading comprehension diagnostic test.
2. Second lesson: Students learned vocabulary related to the graphic novel (Alice in Wonderland). This helped them to acquire specific vocabulary to have better reading comprehension while reading the pictured novel. Moreover, students read the graphic novel during class with the teacher.
3. Third lesson: Students took the post-test.

However, the control group which corresponds to 10th grade A was exposed to the following lessons:

1. First lesson: Students were able to develop a reading comprehension diagnostic test.
2. Second lesson: Students learned vocabulary related to the graphic novel (Alice in Wonderland). This helped them acquire specific vocabulary and have better reading

comprehension while reading the non-pictured novel. Moreover, students started reading the textual novel with the teacher during class.

3. Third lesson: Students finished reading the textual novel during class with the teacher.
4. Fourth lessons: Students took the post-test.

Results

The upcoming chapter details the information gathered from the pre and post-tests conducted with the two groups in this study: the control and the experimental group. Both tests were applied in October 2024.

4.1 Pre-test

An initial test was taken to evaluate the reading comprehension skills of the students and to analyze the results according to their answers. The test used for this specific lesson was the B1 Preliminary Reading Test by Cambridge. However, this was a test that contained multiple items, therefore it was edited and adapted to be done in the minutes available of class time.

After the test was conducted, assessments were checked, and the results were organized for further analysis.

The test was edited for completion within the available 45 minutes, and to make it less tedious since they knew beforehand that they would not get a grade.

4.2 Post-test

A post-test was designed to assess the results and understanding that the students have acquired from the intervention. This evaluation was a reading comprehension test we designed which evaluates the students' reading comprehension after reading Alice in Wonderland. Both the control and experimental groups took the same evaluation with the same questions. The test assessed the following skills:

- Identifying specific information
- Vocabulary acquisition

In addition, the test assessed several activities such as:

- Multiple choice questions

- Fill in the gaps
- True/ False statements

After the tests were conducted, they were checked, and the results were organized for further analysis.

The test was designed for completion within 90 minutes or even less.

Ultimately, it was a traditional test, for as established by Brennan (2023), it was a ‘‘type of measurement obtained from a single paper and pencil’’ (p. 3), and these tests included items such as true/false and multiple choice as it is mentioned before. Likewise, as this author mentions, this was also a formative test as it was ‘‘collected once during or at the end of the lesson (p. 3) with the purpose of acquiring evidence that students improved their reading skills.

4.3 Analysis of Results

This section begins with the presentation of the data obtained from the control group and the experimental group. This data allows us to approve or reject the hypothesis. Moreover, it enables us to verify the effectiveness of the proposed method to improve reading comprehension in EFL learners and to achieve the objectives.

4.3.1 Comparison between pre and post-test in control group

The results are now analyzed separately for each group starting with the control group. To carry out a statistical analysis of the results of both tests in the control group, the results were entered into the statistical software SPSS to scientifically identify whether there was a significant increase in reading scores in this group. To conduct a paired means comparison test (paired T-test), the assumption of normality must be met, indicating that both the pre-test and post-test have a normal distribution. This T-test is used, as stated by Manfei (2017) in her article, ‘for the comparison of differences between two samples’, in our research these two samples are the

results obtained from the control and experimental groups. To assess whether to use this test, the Shapiro-Wilk test is conducted (a test for normality assumption). This test is particularly suitable for small sample sizes ranging between 30 and 35 samples.

The hypotheses for this test are as follows:

1. H₀: Data has a normal distribution.
2. H₁: Data does not have a normal distribution.

This means that when the p-value is less than 0.05, the null hypothesis (H₀) is rejected, and the alternative hypothesis (H₁) is accepted.

According to the results obtained after the application of the Shapiro-Wilk test, the data of the pre and post-test of the control group has a normal distribution (p-value = 0.9513). As the data exhibits a normal distribution, a parametric test is appropriate for comparing the pre-test results and the post-test results in the control group. A t-test for paired data was conducted.

The hypotheses for this test are the following:

- H₀: There is no significant difference between the pre and post-test of the control group.
- H₁: There is a significant difference between the pre and post-test of the control group.

After conducting the test, the results indicate a p-value of 3.563e-11. Since this p-value is less than 0.05, the null hypothesis (H₀) is rejected, indicating that there is indeed a significant difference between the pre-test results and the post-test results in the control group.

The average difference is -14.79, which states that, on average, the scores increased by 14.79 between pre- and post-test in the control group.

4.3.2 Comparison between pre- and post-tests in experimental group

In order to conduct a paired means comparison test (paired T-test), the assumption of normality must be met, indicating that both the pre-test and post-test have a normal distribution.

The chosen test should be paired because it involves comparing results from the same individuals. To assess this, the Shapiro-Wilk test is conducted (a test for the normality assumption). This test is particularly suitable for small sample sizes ranging between 30 and 35 samples.

The hypothesis for this test is as follows:

1. H₀: Data has a normal distribution.
2. H₁: Data does not have a normal distribution

This means that when the p-value is less than 0.05, the null hypothesis (H₀) is rejected, and we accept the alternative hypothesis (H₁).

According to the results obtained after the application of the Shapiro-Wilk test, the data of the pre and post-test of the control group has a normal distribution (p-value = 0.3238).). As the data exhibits a normal distribution, a parametric test is appropriate for comparing the pre-test results and the post-test results in the control group. A t-test for paired data was conducted.

The hypotheses for this test are the following:

- H₀: There is no significant difference between the pre and post-test of the control group.
- H₁: There is a significant difference between the pre and post-test of the control group.

After conducting the test, the results indicate a p-value of 2.843e-08. Since this p-value is less than 0.05, the null hypothesis (H₀) is rejected, indicating that there is indeed a significant difference between the pre-test results and the post-test results in the experimental group.

The average difference is -13.125, which states that, on average, the percentages increased to 13.125 points in the post-test.

4.3.3 Post-test comparison in control and experimental groups

The following section presents the results of the post-test comparison between the control group and the experimental group. This test consists of 30 points, and there is no predefined passing score since both the pre-test and post-test are designed for the purpose of comparing scores between two groups.

In order to conduct a mean comparison test (T-test), it is critical to ascertain that the assumption of normality is satisfied. This step is crucial in determining whether both groups, the control and experimental groups, exhibit a normal distribution of data. To assess this, the Shapiro-Wilk test was employed, a commonly used method for testing normality. The hypotheses for this test are as follows:

- H0: Data has a normal distribution.
- H1: Data does not have a normal distribution

It is essential to note that when the p-value derived from the Shapiro-Wilk test is less than 0.05, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. After applying this test, we found that the control group follows with normal distribution ($p = 0.85$), but the experimental group does not ($p = 0.0013$). Since one of the groups does not follow a normal distribution, the two-sample t-test is not the ideal choice for comparing means between the two groups.

As a result, a non-parametric test called the Mann-Whitney test was performed to compare the results of the post-test between the control and experimental groups. This test is suitable because it does not assume a normal distribution in the data. The hypotheses for the Mann-Whitney test are as follows:

- H0: There is no significant difference between the post-test results of the control and experimental groups
- H1: There is a significant difference between the post-test results of the control and experimental groups

The p-value obtained from the Mann-Whitney test was 0.7098, which is greater than the significance level of 0.05. This result indicates that there is no sufficient statistical evidence to reject the null hypothesis (H0). Therefore, it can be concluded that the differences in post-test scores between the control and experimental groups are not statistically significant, suggesting that any observed differences may be attributed to random variation rather than a systematic effect.

4.3.4 Analysis of contrasts: pre- and post-test outcomes in control group

The following comparative chart shows the results obtained from the pre- and post-tests. The fourth column to the right shows the increase points between both tests while the fifth column presents the percentage of differences between pre and post-tests.

Table 1. Comparative score results between pre- and post-test in the control group.

Control group	<i>Pre-test</i>	<i>Post-test</i>	<i>Increase</i>	<i>Percentage of difference</i>
Participant 1	10/30	21/30	11	37%
Participant 2	10/30	11/30	1	3%
Participant 3	2/30	29/30	27	90%
Participant 4	6/30	25/30	19	63%

Participant 5	4/30	24/30	20	67%
Participant 6	2/30	9/30	7	23%
Participant 7	4/30	16/30	12	40%
Participant 8	0/30	18/30	18	60%
Participant 9	4/30	12/30	8	27%
Participant 10	4/30	16/30	12	40%
Participant 11	6/30	24/30	18	60%
Participant 12	2/30	25/30	23	77%
Participant 13	6/30	23/30	17	56%
Participant 14	8/30	30/30	22	74%
Participant 15	6/30	14/30	8	26%
Participant 16	4/30	13/30	9	30%
Participant 17	2/30	17/30	15	50%
Participant 18	4/30	20/30	16	53%
Participant 19	0/30	20/30	20	66%
Participant 20	4/30	26/30	22	73%
Participant 21	4/30	17/30	13	43%
Participant 22	4/30	20/30	16	53%
Participant 23	0/30	8/30	8	26%
Participant 24	4/30	17/30	13	43%

The following chart shows the obtained results dividing them into minimum, maximum and the average between pre- and post-test in the control group.

Table 2. Descriptive statistics in control group

<i>Pre-test results</i>	<i>Post-test results</i>
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Minimum	0	8
Maximum	10	30
Average	4,1	18,9

As is shown in the previous comparative chart, it is evidenced that the maximum score in the pre-test was 10 points. Conversely, in the post-test, the maximum score increased to 30 points. After comparing the pre- and post-test results, it becomes apparent that nineteen students, constituting 79,2% of the population, demonstrated an improvement in their post-test scores compared to the pre-test. Notably, thirteen students (students #3, 4, 5, 8, 11, 12, 13, 14, 17, 18, 19, 20, 22) exhibited a score increase of over 15 points, reflecting a percentage difference of 62,5%. One student (student #2), representing 4,2% of the population, displayed no variance difference in 30 in their score in both tests. Lastly, one student (#3) exhibited the maximum percentage of difference in both tests, with 90%.

4.3.5 Analysis of contrasts: pre- and post-test outcomes in experimental group

The following comparative chart shows the results obtained of the pre- and post-tests. The fourth column to the right shows the increase points between both tests while the fifth column presents the percentage of differences between pre and post-tests.

Table 3. Comparative score results between pre- and post-test in the experimental group.

Experimental group	<i>Pre-test</i>	<i>Post-test</i>	<i>Increase</i>	<i>Percentage of difference</i>
Participant 1	12/30	28/30	16	53%
Participant 2	4/30	22/30	18	60%

Participant 3	10/30	25/30	15	50%
Participant 4	6/30	19/30	13	43%
Participant 5	8/30	15/30	7	24%
Participant 6	6/30	29/30	23	76%
Participant 7	12/30	15/30	3	10%
Participant 8	12/30	13/30	1	3%
Participant 9	12/30	14/30	2	6%
Participant 10	12/30	17/30	5	16%
Participant 11	4/30	27/30	23	77%
Participant 12	0/30	27/30	27	90%
Participant 13	4/30	26/30	22	73%
Participant 14	0/30	14/30	14	46%
Participant 15	10/30	15/30	5	37%
Participant 16	2/30	14/30	12	40%
Participant 17	4/30	17/30	13	43%
Participant 18	0/30	15/30	15	50%
Participant 19	14/30	14/30	0	46%
Participant 20	12/30	28/30	16	53%
Participant 21	4/30	27/30	23	77%
Participant 22	6/30	27/30	21	70%
Participant 23	4/30	12/30	8	27%
Participant 24	4/30	17/30	13	43%

The following chart shows the obtained results dividing them into minimum, maximum and the average between pre- and post-test in the experimental group.

Table 4. Descriptive statistics in experimental group

	<i>Pre-test results</i>	<i>Post-test results</i>
Minimum	0	14
Maximum	14	28
Average	6,75	19,87

As is shown in the previous comparative chart, it is evidenced that the maximum score on the pre-test was 14 points. Conversely, in the post-test, the maximum score increased to 28 points. After comparing the pre- and post-test results, it becomes apparent that sixteen students, constituting 66,7% of the population, demonstrated an improvement in their post-test scores compared to the pre-test. Notably, eleven students (students #1, 2, 3, 6, 11, 12, 13, 18, 20, 21, 22) exhibited a score increase of over 15 points, reflecting a percentage difference of 45,8%. Four students (student #7, 8, 9, 19), representing 16,7% of the population, displayed no variance difference in 30 their score in both tests. Lastly, one student (#12) exhibited the maximum percentage of difference in both tests, with 90%.

Discussion

In this following chapter, a comparison between the results of the post-tests of the control and experimental groups is presented.

This research sought to examine the development of EFL high-school students' reading comprehension skills, and whether or not the use of graphic novels had a beneficial effect on said skill. The question of this research was: Does the use of graphic novels have any effect on EFL learners' reading comprehension scores?

The results indicated that both groups, the control group reading a traditional novel and the experimental group engaging with the graphic version of the same text, showed improvements in their reading comprehension scores from pre-test to post-test. This suggests that the intervention had a positive impact on the students' reading comprehension. However, when comparing the statistically significant differences between the control group and the experimental group, the results did not provide sufficient evidence to establish a difference that would allow us to determine whether the use of graphic novels has a significant effect on EFL high school students' reading comprehension. These findings raise critical questions about the practical application of graphic novels in EFL classrooms, such as how effective the use of graphic novels is and suggest a need to examine the interplay between cognitive, motivational, prior knowledge, and contextual factors that shape their effectiveness.

The results of this research do not agree with what Boerma *et al.* (2016). These authors state that readers learn and understand more from a text when pictures are added. Similarly, Hassett and Schieble (2007) agree with them and mention that graphic novels are recognized as being a tool that helps visual learners. In contrast to what these authors state, when we compared the results obtained between the post-tests of both groups, we did not obtain sufficient statistical

results to demonstrate that there was a significant difference in reading comprehension and vocabulary acquisition between the control and experimental group. Although the experimental group showed an improvement between the pre and post-test, it was not sufficiently different from the improvement that the control group also showed between these two tests.

The theoretical foundation of this research is rooted in Dual Coding Theory, which posits that learning is enhanced when information is processed through both verbal and visual channels. Boerma *et al.* (2016) emphasize that pictures can facilitate the construction of mental representation as well, as they can clarify implicit or unclear relations in the text. Likewise, Schwarz (2006) highlights the role of graphic novels in sharpening visual literacy, which is increasingly important in today's multimodal communication landscape. Despite these theoretical benefits, the findings of this research challenge the straightforward application of Dual Coding Theory to graphic novels in EFL settings, suggesting that the cognitive demands of processing multimodal texts may have presented a challenge for some participants in the experimental group.

Jaffe and Hurwich (2018) argue that graphic novels require readers to decode textual information, interpret visual cues, and synthesize these elements into a coherent understanding of the narrative. This process, while potentially enriching, can overwhelm less proficient readers. When the cognitive demands exceed a reader's capacity, the benefits of dual coding may be diminished or negated. In this research, the experimental group's performance may reflect the challenges of managing this cognitive load. The graphic novel format, while visually engaging, requires a level of inferential reasoning and multimodal literacy that many participants may not have possessed.

The statistical results align with Edwards (2009), who noted that the complexity of graphic novels lies in their demand for readers to infer meaning from both text and imagery, a process that can be both enriching and overwhelming depending on the reader's skills. Without explicit scaffolding to guide the reader's interaction with the graphic novel, students in the experimental group may have struggled to integrate its visual and textual elements effectively. As a consequence, the use of graphic novels may be beneficial and a tool for visual readers, but their effectiveness can vary significantly depending on the individual, as it requires an additional cognitive demand. For some, the integration of illustrations may be an advantage; however, for others, it can be rather challenging.

Furthermore, the lack of significant differences between the experimental and control groups suggests the need for further research into the specific conditions under which graphic novels may or may not enhance reading comprehension. One possible explanation for this lies in the cognitive demands of processing both text and image simultaneously. The act of decoding both visual and textual requires greater effort and an additional skill to reading comprehension, which is the ability to make inferences. Jaffe and Hurwich (2018) highlighted in their paper the fact that graphic novels offer a different kind of reading experience for skilled readers, as they use both strategically selected words and images to tell the story. Such advanced readers develop a type of skill that accounts for the combination of images and text, which is called 'Dual Coding'.

Another critical factor influencing the research's results is the role of prior knowledge and its impact on comprehension. Schema Theory (Bartlett, 1932) emphasizes that readers rely on existing cognitive frameworks to interpret and assimilate new information. When students lack familiarity with the material, their ability to construct meaning is significantly impaired. This

factor could have influenced the results of our research because, in the experimental group, the vast majority of the students did not know the story. When it was explained to them what Alice in Wonderland was about, most had not seen the movie or heard about it.

The experimental group's lack of familiarity with *Alice in Wonderland* likely limited their ability to connect new information to existing schemas, thereby impacting their comprehension. While the control group benefited from their prior knowledge of the story, this familiarity was absent in the experimental group, which may have contributed to the absence of significant differences between the groups.

As Richardson mentions in his study, it is important to give the students a choice of graphic novels, as this increases motivation and is likely to favor an increase in reading comprehension scores (2017). However, since the story was completely unfamiliar to the experimental group, processing the information from scratch and understanding it was more difficult. This is because they did not have sufficient motivation as most of the students in this class were male and had no interest in Alice's story. In contrast to the experimental group, the students from the control did know the story, which led to scores from their post-test without a significant difference.

The primary objective of this research was to determine whether the use of graphic novels significantly improves EFL students' reading comprehension in comparison with traditional textual novels. Despite the potential benefits suggested by Dual Coding Theory (Paivio, 1979) and previous research (Boerma et al., 2016; Schwarz, 2006), the findings of this study did not reveal statistically significant differences between the experimental and control groups. Although both groups showed an improvement in their reading comprehension scores after the intervention, the absence of a significant effect in favor of the experimental group

suggests that the use of graphic novels as a pedagogical tool is not a universally effective strategy under the conditions of this study.

The findings of this research must also be considered in light of its methodological constraints. First, the use of a single graphic novel limits the generalizability of the results. Graphic novels vary widely in complexity, visual style, and thematic content, which may affect their educational impact. Future research should incorporate a broader range of texts to explore these variables.

Second, the short duration of the intervention may have constrained students' ability to develop the skills required for multimodal literacy. Schwarz (2006) and Boerma et al. (2016) argue that the benefits of graphic novels often emerge with sustained exposure and guided practice. A longer intervention period, coupled with explicit instruction in reading multimodal texts, could yield more definitive results.

Finally, the study's reliance on quantitative methods, while useful for assessing measurable outcomes, did not capture the qualitative dimensions of students' experiences with the graphic novel. Future research incorporating qualitative methods, such as interviews or reflective journals, could provide deeper insights into how students interact with and perceive graphic novels as learning tools.

Although this study did not find statistically significant evidence to support the hypothesis that graphic novels enhance reading comprehension more effectively than traditional novels, it highlights several important considerations for their use in EFL classrooms. These include the need for explicit scaffolding to support students in navigating multimodal texts, the selection of materials aligned with students' interests and prior knowledge, and the importance of sustained instructional interventions.

The findings underscore the complex interplay of cognitive, contextual, and individual factors in reading comprehension. Future research should explore these dimensions in greater depth, employing randomized controlled trials and diverse methodological approaches to build a more comprehensive understanding of the pedagogical potential of graphic novels.

Conclusion

Regarding the working hypothesis in our research, ‘Graphic novels, unlike traditional novels, contain images and texts that work together to enhance comprehension’ such a statement was rejected.

The research about using graphic novels to improve reading comprehension skills in high school EFL learners has not shown significant results between the use of graphic novels and the improvement of the SLA, specifically, reading comprehension.

No significant differences were observed between the results obtained from the post-test analysis in the experimental and control groups. Future researchers are recommended to conduct further studies on the effect of graphic novels on learners’ reading comprehension skills, but also investigate other multimodal texts such as infographics, posters, comics, and illustrated stories. For instance, posters and infographics provide both written and visual information according to what is being described. This helps readers better associate what is being reported and thus retain the information effectively. In the case of comics and illustrated stories, these can help to favor comprehension through the images and the sequence they follow when narrating the story. As mentioned by Mills, Kathy, and Unsworth (2017) materiality matters in making sense of things, particularly images. Furthermore, this is supported by the principles of multimodal literacy. It mentions that a central aspect is the relationship between the representational resources, whether words or images, and the meaning-making resources at hand (Mills, Kathy & Unsworth, 2017).

Additionally, it is suggested that the same study can be replicated considering the previous assessment of reading comprehension in their L1. This allows us to have evidence that if their low or high level of reading comprehension in their native language interferes positively

or negatively with reading comprehension in the L2. Furthermore, this was a crucial factor since there is a possibility that they may present difficulties when reading texts in their native language. This was reflected in the post-reading results, given the fact that it was a foreign language, and the students did not have a high level of English, it was more complex for them to understand the main purpose of the graphic novel they read.

On the other hand, a recommended pedagogical approach is teaching them the difference between one text and the other and from that applying different reading strategies for better comprehension. This is because each text requires a different cognitive effort and level of concentration. It is important to include pre-, while-, and post-reading activities to facilitate reading comprehension. As pre-reading activities, the teacher could ask questions to prepare the students for what the topic will be about, to activate the previous knowledge, and to direct students to what they want to know about the text. Then while reading, students could model the reading rather than being the teacher the one guiding it. This strategy can be done once individually and in silence, allowing students to pay attention to what they are reading and check if they have understood it. Finally, in the post-reading activity, students are asked about what they learned, what they found interesting while reading, and more playful activities, such as online activities related to the story (Laoli, 2023). For future research, this same study could be implemented with different grades. In this way, there could be a variation in the English level of the students, as one grade may have a wider knowledge of words or phrases than the other. This could help to obtain significant results related to their reading comprehension when applied to graphic novels. Lastly, another pedagogical proposal to be considered is to apply the same study, but plan the lesson according to the unit worked and with a greater number of interventions that can be the same unit duration. For instance, the unit to be worked on during the semester is unit 3

on Outstanding People following OA11 which is related to demonstrating comprehension of literary texts (such as songs or poems, comic strips, short and simple stories, adapted novels and plays, short and simple myths or legends) (Inglés, s. f.-a). Thus, graphic novels are incorporated as a method to train the reading comprehension of EFL students. Regarding interventions, this study was only implemented in three or four classes for each group. Consequently, the classes may not have been enough for the students to successfully understand the novel, which had a negative impact on their results.

In the context of teaching and learning, several implications emerged from the results of this research. By being exposed to the language through reading graphic novels, students could expand and improve their cognitive abilities in English. However, since reading is the key ability and opening to accessing SLA, the use of graphic novels is not the best option to improve this skill. Although, students would have the opportunity to learn grammatical structures, new vocabulary and even the use of English, this is not the most appropriate way because the information presented in the text is limited. Ultimately, all strategies and suggestions by us rely heavily upon educators and their willingness to implement new methodologies. Educators played an important role in the implementation of new methods or strategies to provide a better learning experience for the high school EFL students.

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Appendices

Appendix A

Gantt Chart.

GANTT CHART (Complementary reading interventions)							
	10 th grade A				10 th grade B		
	October		November		October		
	15	18	22	25	14	17	21
Pre - test							
Presentation of vocabulary							
Start the reading							
End of reading							
Post- test							

Appendix B

Pre-test Instrument.



COLEGIO POLIVALENTE PAUL HARRIS SCHOOL
Corporación Educacional Ángel Astorga Valenzuela
English Department
Miss Carolina Astudillo
Teachers: Cristóbal Loyola, Violeta Tapia, Tiare Narváez & Camila San Martín



Pre Reading: Diagnostic Test

Student name:	Grade: 10th grade	Date:
Ideal score: 16 points	Your score:	Passing score: 9 points
Objective: Demonstrate reading comprehension skills through short and long texts.		

Instructions for the test

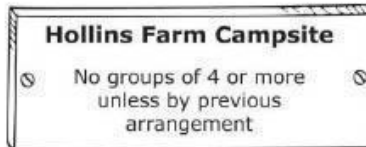
- Read all the instructions for each item carefully.
- Answer all the questions.
- You have 90 minutes to complete the test.
- Phones must be kept in silence and in your bags.
- The test is solved individually.
- If you have a doubt, raise your hand and wait until the teacher arrives.



Part 1 - Multiple choice questions

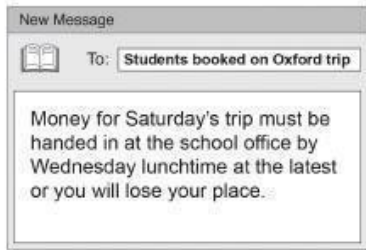
From 1-3, look at each photo and read the text carefully. Then, answer the questions. (6 points; 2 pt each)

1



- A All campers must reserve a place in advance.
- B Groups bigger than four are not allowed on this site.
- C Groups of more than three should contact the campsite before arriving.

2



- A Those who don't pay punctually won't be able to go to Oxford.
- B There are very few places left on the Oxford trip.
- C This is the last chance for students to register for the Oxford trip.

3



- A You must have signed permission to take part in sports day.
- B You have to limit the number of sports day races you take part in.
- C You need to write your name here to get more information about sports day.



Part 2 - Reading Comprehension

Read the text carefully and answer questions 1 to 5. (10 points; 2 pt each)

Play to win

16-year-old Harry Moore writes about his hobby, tennis.

My parents have always loved tennis and they're members of a tennis club. My older brother was really good at it, and they supported him – taking him to lessons all the time. So, I guess when I announced that I wanted to be a tennis champion when I grew up, I just intended for them to notice me. My mother laughed. She knew I couldn't possibly be serious; I was just a 4-year-old kid!

Later, I joined the club's junior coaching group and eventually took part in my first proper contest, confident that my team would do well. We won, which was fantastic, but I wasn't so successful. I didn't even want to be in the team photo because I didn't feel I deserved to be. When my coach asked what happened in my final match, I didn't know what to say. I couldn't believe I'd lost – I knew I was the better player. But every time I attacked the other player defended brilliantly. I couldn't explain the result.

After that, I decided to listen more carefully to my coach because he had lots of tips. I realized that you need the right attitude to be a winner. On court I have a plan but sometimes the other guy will do something unexpected, so I'll change it. If I lose a point, I do my best to forget it and find a way to win the next one.

At tournaments, it's impossible to avoid players who explode in anger. Lots of players can be negative – including myself sometimes. Once I got so angry that I nearly broke my racket! But my coach has helped me develop ways to control those feelings. After all, the judges have a hard job and you just have to accept their decisions.

My coach demands that I train in the gym to make sure I'm strong right to the end of a tournament. I'm getting good results: my shots are more accurate and I'm beginning to realize that with hard work there's a chance that I could be a champion one day.

Appendix C

Post-Test Instrument



COLEGIO POLIVALENTE PAUL HARRIS SCHOOL
Corporación Educacional Ángel Astorga Valenzuela
English Department
Miss Carolina Astudillo

Teachers: Cristóbal Loyola, Violeta Tapia, Tiare Narváez & Camila San Martín



Post Reading Test Alice in Wonderland

Name:	Grade: 10 th grade	Date:
Ideal score: 30 points	Your score:	Passing score: 18 points
Objective: > Demonstrate reading comprehension through an extract from a novel.		

Instructions for the test

- Read all the instructions for each item carefully.
- Answer all the questions.
- You have 90 minutes to complete the test.
- Phones must be kept in silence and in your bags.
- The test is solved individually.
- If you have a doubt, raise your hand and wait until the teacher arrives.

Part 1 - Multiple choice questions

- I. For questions 1 - 5, choose the correct answer A, B, or C. **(10 points; 2 pt each)**
 1. Which character said the following:
'I've never seen a rabbit with a waistcoat... or a watch'.
 - a) Alice's sister.
 - b) The rabbit.
 - c) Alice.
 2. The phrase in **bold** is a synonym of:
*'Oh, **my ears and whiskers!** How late it's getting!'*
 - a) 'Oh, my God!'
 - b) 'Oh, amazing!'
 - c) 'Oh, how great!'



3. Which character said the following:
'I must be getting near the center of the Earth!'
- a) The rabbit.
 - b) Alice.
 - c) Alice's sister.
4. Which character said the following:
'Oh, dear! Oh, dear! I shall be too late!'
- a) Alice.
 - b) Alice's sister.
 - c) The rabbit.
5. The phrase in **bold** is a synonym of:
*'I shall think **nothing of falling down** the stairs!'*
- a) Going through.
 - b) Tumbling down.
 - c) Kneeling down.

Part 2 - Vocabulary

1.- Fill in the gaps with the corresponding word. (12 points; 2 pt each)

larger	whiskers	curious	daisies	fit	down
--------	----------	---------	---------	-----	------

- A. 'I'd make a chain of _____.'
- B. '_____ the rabbit hole.'
- C. 'Oh, my ears and _____!'
- D. 'I could never hope to _____ inside.'
- E. 'What a _____ feeling!'
- F. 'I'll eat it if it makes me _____.'



Part 3 - True or False

III. Read carefully each statement, some of which are true or false. Circle the letter T if it is true or F if it is false. (8 points; 1 pt each)

1. Alice sees a white rabbit. T F
2. The white rabbit is wearing a blue jacket. T F
3. Alice follows the white rabbit into a large hole in the ground. T F
4. Alice is feeling very happy when she sees the rabbit. T F
5. Alice decides not to follow the rabbit and goes home. T F
6. Alice fell down into a deep well. T F
7. At the beginning of the story, Alice is bored. T F
8. There was a bottle with a paper label with the words "EAT ME". T F

Great job!




Appendix D - Control group lesson plans

1st Lesson: Pre test

Grade Level: 10th grade.			
OA (MINEDUC) 11: Demonstrate comprehension of literary texts (such as songs or poems, comic strips, short and simple stories, adapted novels and plays, short and simple myths or legends) by identifying: > Theme, characters, characterization, setting (time, place), plot (beginning, development, ending), conflict. > Keywords and phrases, idioms, frequently used expressions and thematic vocabulary.			
Function: Applying reading comprehension skills in a written diagnostic test.			
Main Objective: At the end of the class, students will be able to demonstrate reading comprehension skills through short and long texts.			
Subsidiary objective/aim: - To complete a diagnostic test about reading comprehension.			
Cross-curricular objective: Work responsibly proactively and collaboratively with a common goal, and demonstrate respect for the interests and ideas of others.			
Contents			
Lexis or Vocabulary -	Grammar -	Pronunciation and Intonation -	Sequence and Time 90 minutes.
Stages	Interaction	Materials/Timing	Assessment/Evaluation
Engage / Warm-up	After greeting the students, they are presented with the objective of the class and the diagnostic test to be completed. Once this is explained, they are organised individually with just a pen and eraser over the table.	5 minutes. <ul style="list-style-type: none">● Pen● Test	Formative assessment. Students are expected to follow the instructions and get prepared for the test.
Study / Presentation	The teacher explains to the students the objective of the diagnostic test and reads out loud the instructions for each item.	20 minutes. <ul style="list-style-type: none">● Pen.● Test.	Formative assessment. Students are expected to solve doubts before beginning the test.
Practice / Guided Practice	Students complete the diagnostic test to evaluate reading comprehension. This test includes multiple-choice questions.	30 minutes. <ul style="list-style-type: none">● Pen.● Test.	Formative assessment. Students are expected to complete the text given in silence.
Activate / Production	Students complete the diagnostic test to evaluate reading comprehension. This test includes multiple-choice questions.	25 minutes. <ul style="list-style-type: none">● Pen.● Test.	Formative assessment. Students are expected to complete the text given in silence.
Closure / Wrap-up	Once the test is done, students are asked about which item was more difficult/easier for them. Students return to their original seats.	10 minutes. <ul style="list-style-type: none">● Pen.● Test.	Formative assessment. Students are asked to participate actively and reorganize the classroom.

2nd Lesson: Reading

Grade Level: 10th grade.			
OA (MINEDUC) 12: Select and use strategies to support comprehension of texts read: > Pre-reading: read with a purpose, and use prior knowledge. > Reading: do speed reading and focused reading, make inferences, reread, identify organizational elements of the text (title, subtitle, diagrams), and ask questions when reading. > Post-reading: answer questions asked, use graphic organizers, reread, retell, summarize, and ask questions to confirm information. > Keywords and phrases, idioms, frequently used expressions and thematic vocabulary.			
Function: Identifying new vocabulary through a reading assignment.			
Main Objective: Identify vocabulary related to Alice in Wonderland through images.			
Subsidiary objective/aim: <ul style="list-style-type: none"> - To guess new vocabulary through images. - To start the reading assignment. - To summarise what was done during class. 			
Cross-curricular objective: Work responsibly proactively and collaboratively with a common goal, and demonstrate respect for the interests and ideas of others.			
Contents			
Lexis or Vocabulary Words: Pegs, Saucer, Peeped, Tumbling down/falling down, Pop down, Knelt down, Dozing off, Creep under, Dull, Slippery, Earnestly, Sharply, Plainly, Downward, Hedge, Flashed across, Daisy-chain, Heap of stick, Out-of-the-way, Red-hot poker, Shrink, Scolded, Currants.	Grammar -	Pronunciation and Intonation -	Sequence and Time 90 minutes.
Stages	Interaction	Materials/Timing	Assessment/Evaluation
Engage / Warm-up	After greeting the students, they are asked to take out their notebooks and pencils to start the class. The teacher presents the objective of the class, the name of the new unit, and the sequence of the class for the students' knowledge.	5 minutes. <ul style="list-style-type: none"> ● Notebook. ● PPT. 	Formative assessment.  Students are expected to take out their notebooks and pay attention to the instructions of the class.
Study / Presentation	Students will have to answer the following question: "What do you know about Alice in Wonderland?". After brainstorming the ideas, a brief biography of the author is presented. Finally, the main characters of the novel are presented and some characteristics of them.	20 minutes. <ul style="list-style-type: none"> ● Notebook. ● PPT. 	Formative assessment. Students should participate actively and write down in their notebooks the vocabulary of the class.
Practice / Guided Practice	Students are exposed to the vocabulary related to the textual novel "Alice in Wonderland". Students are able to share their doubts in case they have.	30 minutes. <ul style="list-style-type: none"> ● Notebook. ● PPT. 	Formative assessment. Students are expected to take notes and share their doubts.
Activate / Production	Students start reading the novel "Alice in Wonderland" together with the teacher. First, some volunteers start the chapter and then the teacher continues. At the end of each extract of the novel, students and the teacher comment on what is happening during the story.	25 minutes. Printed textual novel.	Formative assessment. Students are expected to pay attention to the reading and to participate actively after finishing the reading.
Closure / Wrap-up	To conclude the class, students are asked what they think of the story and do a little summary about what was read.	10 minutes. <ul style="list-style-type: none"> ● Notebook. ● PPT. 	Formative assessment. Students should participate in the class wrap-up and solve any doubts about the reading.

3rd Lesson: Reading

Grade Level: 10th grade.			
OA (MINEDUC) 12: Select and use strategies to support comprehension of texts read: > Pre-reading: read with a purpose, and use prior knowledge. > Reading: do speed reading and focused reading, make inferences, reread, identify organizational elements of the text (title, subtitle, diagrams), and ask questions when reading. > Post-reading: answer questions asked, use graphic organizers, reread, retell, summarize, and ask questions to confirm information.			
Function: Demonstrating reading comprehension through post-reading activities.			
Main Objective: Apply vocabulary related to Alice in Wonderland through a group activity.			
Subsidiary objective/aim: <ul style="list-style-type: none"> - To review what was done in the previous class. - To finish the reading assignment. - To complete a Wordwall and group activity. 			
Cross-curricular objective: Work responsibly proactively and collaboratively with a common goal, and demonstrate respect for the interests and ideas of others.			
Contents			
Lexis or Vocabulary Words: Pegs, Saucer, Peeped, Tumbling down/falling down, Pop down, Knelt down, Dozing off, Creep under, Dull, Slippery, Earnestly, Sharply, Plainly, Downward, Hedge, Flashed across, Daisy-chain, Heap of stick, Scold, Out-of-the-way, Red-hot poker, Shrink, Currants .	Grammar -	Pronunciation and Intonation -	Sequence and Time 90 minutes.
Stages	Interaction	Materials/Timing	Assessment/Evaluation
Engage / Warm-up	The teacher greets the students before beginning the class. Then, the students take out their notebooks and the objective of the class is explained, finally, students answer questions to remember what was done in the previous class.	5 minutes. ● Notebook. ● PPT.	Formative assessment. Students should take out their notebooks and write down the class objective.
Study / Presentation	Once the students remember what they read in the previous class, the teacher checks that there are no doubts about the vocabulary or the text before starting with the reading.	20 minutes. Printed textual novel.	Formative assessment. Students are expected to ask questions to solve doubts about the text.
Practice / Guided Practice	Students finish the reading assignment of the novel "Alice in Wonderland". After completing the reading, the teacher asks questions to summarise the reading and check the comprehension of the text.	30 minutes. Printed textual novel.	Formative assessment. Students finish the reading and solve doubts about the text.
Activate / Production	Students are expected to answer some questions about the graphic novel in groups. After that, they complete a Wordwall activity. Both activities help students to check their understanding of the reading.	25 minutes. ● PPT. ● Wordwall.	Formative assessment. Students are expected to participate actively in the Wordwall activity and finish a group activity.
Closure / Wrap-up	To finish the class, the teacher asked the students if they liked the story or not or if it was easy or difficult to understand, and also, reminded the students of the test they will have next class. Students are given the text to review before the test.	10 minutes. ● Notebook. ● PPT.	Formative assessment. Students should participate in the class wrap-up and solve any doubts they might have about the reading.

4th Lesson: Post-test

Grade Level: 10th grade.			
OA (MINEDUC) 11: Demonstrate comprehension of literary texts (such as songs or poems, comic strips, short and simple stories, adapted novels and plays, short and simple myths or legends) by identifying:			
> Theme, characters, characterization, setting (time, place), plot (beginning, development, ending), conflict.			
> Keywords and phrases, idioms, frequently used expressions and thematic vocabulary.			
Function: Applying reading comprehension skills in a written post-test.			
Main Objective: Demonstrate reading comprehension through an extract from a novel.			
Subsidiary objective/aim:			
- To complete a post-test about a textual novel called Alice in Wonderland.			
Cross-curricular objective: Work responsibly proactively and collaboratively with a common goal, and demonstrate respect for the interests and ideas of others.			
Contents			
Lexis or Vocabulary	Grammar	Pronunciation and Intonation	Sequence and Time
-	-	-	90 minutes.
Stages	Interaction	Materials/Timing	Assessment/Evaluation
Engage / Warm-up	After greeting the students, they are presented with the objective of the class and the post-test to be completed. Once this is explained, they are organised individually with just a pen and eraser over the table.	5 minutes. <ul style="list-style-type: none">● Pen.● Test.	Formative assessment. Students are expected to follow the instructions and get prepared for the test.
Study / Presentation	The teacher explains to the students the objective of the post-test and reads out loud the instructions for each item.	20 minutes. <ul style="list-style-type: none">● Pen.● Test.	Formative assessment. Students are expected to solve doubts before beginning the test.
Practice / Guided Practice	Students complete the post-test to evaluate reading comprehension related to Alice in Wonderland. This test includes multiple-choice questions and true/false statements.	30 minutes. <ul style="list-style-type: none">● Pen.● Test.	Summative assessment. Students are expected to complete the text given in silence.
Activate / Production	Students complete the post-test to evaluate reading comprehension related to Alice in Wonderland. This test includes filling in the gaps with vocabulary.	25 minutes. <ul style="list-style-type: none">● Pen.● Test.	Summative assessment. Students are expected to complete the text given in silence.
Closure / Wrap-up	Once the test is done, students are asked about which item was more difficult/easier for them. Students return to their original seats.	10 minutes. <ul style="list-style-type: none">● Pen.● Test.	Formative assessment. Students are asked to participate actively and reorganize the classroom.

Appendix E - Experimental group lesson plans

1st Lesson: Pre-test

Grade Level: 10th grade.			
OA (MINEDUC) 11: Demonstrate comprehension of literary texts (such as songs or poems, comic strips, short and simple stories, adapted novels and plays, short and simple myths or legends) by identifying: > Theme, characters, characterization, setting (time, place), plot (beginning, development, ending), conflict. > Keywords and phrases, idioms, frequently used expressions and thematic vocabulary.			
Function: Applying reading comprehension skills in a written diagnostic test.			
Main Objective: At the end of the class, students will be able to demonstrate reading comprehension skills through short and long texts.			
Subsidiary objective/aim: - To complete a diagnostic test about reading comprehension.			
Cross-curricular objective: Work responsibly proactively and collaboratively with a common goal, and demonstrate respect for the interests and ideas of others.			
Contents			
Lexis or Vocabulary -	Grammar -	Pronunciation and Intonation -	Sequence and Time 90 minutes.
Stages	Interaction	Materials/Timing	Assessment/Evaluation
Engage / Warm-up	After greeting the students, they are presented with the objective of the class and the diagnostic test to be completed. Once this is explained, they are organised individually with just a pen and eraser over the table.	5 minutes. <ul style="list-style-type: none">• Pen.• Test.	Formative assessment. Students are expected to follow the instructions and get prepared for the test.
Study / Presentation	The teacher explains to the students the objective of the diagnostic test and reads out loud the instructions for each item.	20 minutes. <ul style="list-style-type: none">• Pen.• Test.	Formative assessment. Students are expected to solve doubts before beginning the test.
Practice / Guided Practice	Students complete the diagnostic test to evaluate reading comprehension. This test includes multiple-choice questions.	30 minutes. <ul style="list-style-type: none">• Pen.• Test.	Formative assessment. Students are expected to complete the text given in silence.
Activate / Production	Students complete the diagnostic test to evaluate reading comprehension. This test includes multiple-choice questions.	25 minutes. <ul style="list-style-type: none">• Pen.• Test.	Formative assessment. Students are expected to complete the text given in silence.
Closure / Wrap-up	Once the test is done, students are asked about which item was more difficult/easier for them. Students return to their original seats.	10 minutes. <ul style="list-style-type: none">• Pen.• Test.	Formative assessment. Students are asked to participate actively and reorganize the classroom.

2nd Lesson: Reading

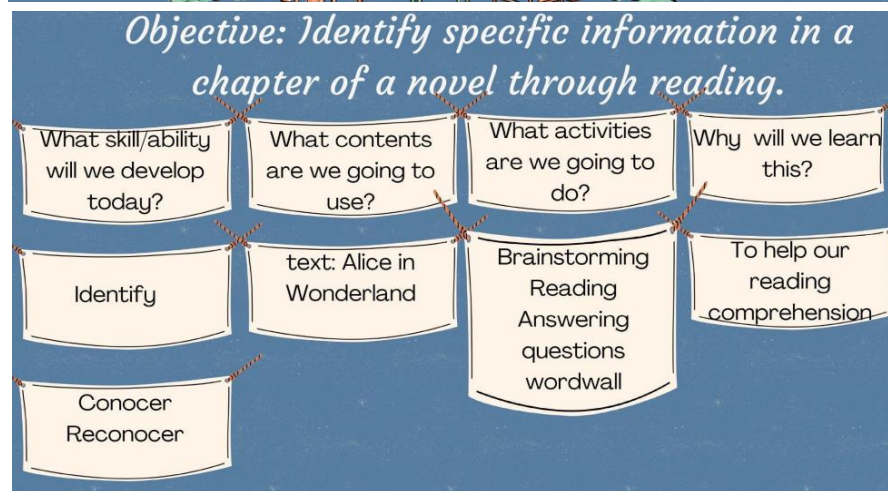
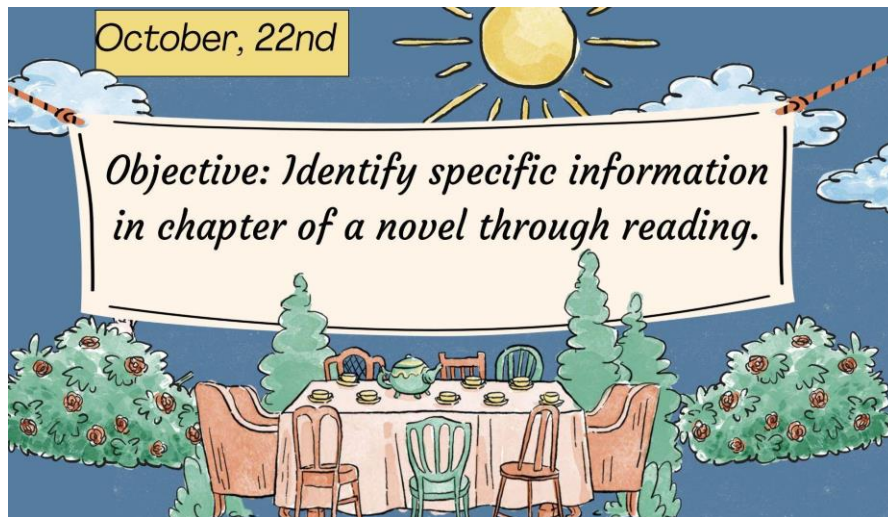
Grade Level: 10th grade.			
OA (MINEDUC) 12: Select and use strategies to support comprehension of texts read: > Pre-reading: read with a purpose, and use prior knowledge. > Reading: do speed reading and focused reading, make inferences, reread, identify organizational elements of the text (title, subtitle, diagrams), and ask questions when reading. > Post-reading: answer questions asked, use graphic organizers, reread, retell, summarize, and ask questions to confirm information. > Keywords and phrases, idioms, frequently used expressions and thematic vocabulary.			
Function: Identifying new vocabulary through a reading assignment.			
Main Objective: Identify vocabulary related to Alice in Wonderland through images.			
Subsidiary objective/aim: <ul style="list-style-type: none"> - To guess new vocabulary through images. - To start the reading assignment. - To participate in a Word Wall and in a group activity. - To summarise what was done during class. 			
Cross-curricular objective: Work responsibly proactively and collaboratively with a common goal, and demonstrate respect for the interests and ideas of others.			
Contents			
Lexis or Vocabulary Words: Watch, Golden Key, Get out, Falling down/ tumbling down, Through, Whiskers, Waistcoat, Daisy chain		Grammar -	Pronunciation and Intonation - Sequence and Time 90 minutes.
Stages	Interaction	Materials/Timing	Assessment/Evaluation
Engage / Warm-up	After greeting the students, they are asked to take out their notebooks and pencils to start the class. The teacher presents the objective of the class, the name of the new unit, and the sequence of the class for the students' knowledge.	5 minutes. <ul style="list-style-type: none"> ● Notebook ● PPT. 	Formative assessment. Students are expected to take out their notebooks and pay attention to the instructions of the class.
Study / Presentation	Students will have to answer the following question: "What do you know about Alice in Wonderland?". After brainstorming the ideas, a brief biography of the author is presented. Finally, the main characters of the novel are presented and some characteristics of them.	20 minutes <ul style="list-style-type: none"> ● Notebook ● PPT. 	Formative assessment. Students should write down in their notebooks the vocabulary of the class.
Practice / Guided Practice	Students are exposed to the vocabulary related to the textual novel "Alice in Wonderland". Students start reading the novel "Alice in Wonderland" together with the teacher. First, some volunteers start the chapter and then the teacher continues. At the end of each extract of the novel, students and the teacher comment on what is happening during the story.	30 minutes. <ul style="list-style-type: none"> ● Notebook ● PPT. 	Formative assessment. Students are expected to take notes about the vocabulary and share their doubts.
Activate / Production	Students complete a Wordwall activity. Both activities help students to check their understanding about the reading.	25 minutes. Printed graphic novel.	Formative assessment. Students are expected to participate actively and finish the group activity.
Closure / Wrap-up	To conclude the class, students are asked what they think of the story and do a little summary about what was read.	10 minutes. <ul style="list-style-type: none"> ● Notebook ● PPT. 	Formative assessment. Students should participate in the class wrap-up and solve any doubts they might have about the reading.

3rd Lesson: Post-test

Grade Level: 10th grade.			
OA (MINEDUC) 11: Demonstrate comprehension of literary texts (such as songs or poems, comic strips, short and simple stories, adapted novels and plays, short and simple myths or legends) by identifying: > Theme, characters, characterization, setting (time, place), plot (beginning, development, ending), conflict. > Keywords and phrases, idioms, frequently used expressions and thematic vocabulary.			
Function: Applying reading comprehension skills in a written post-test.			
Main Objective: Demonstrate reading comprehension through an extract from a novel.			
Subsidiary objective/aim: - To complete a post-test about a graphic novel called Alice in Wonderland.			
Cross-curricular objective: Work responsibly proactively and collaboratively with a common goal, and demonstrate respect for the interests and ideas of others.			
Contents			
Lexis or Vocabulary		Grammar	Pronunciation and Intonation
			Sequence and Time ● 90 minutes.
Stages			
Stages	Interaction	Materials/Timing	Assessment/Evaluation
Engage / Warm-up	After greeting the students, they are presented with the objective of the class and the post- test to be completed. Once this is explained, they are organised individually with just a pen and eraser over the table.	5 minutes. ● Pen. ● Test.	Formative assessment. Students are expected to follow the instructions and get prepared for the test.
Study / Presentation	The teacher explains to the students the objective of the post- test and reads out loud the instructions for each item.	20 minutes. ● Pen. ● Test.	Formative assessment. Students are expected to solve doubts before beginning the test.
Practice / Guided Practice	Students complete the post- test to evaluate reading comprehension related to Alice in Wonderland. This test includes multiple-choice questions and true/false statements.	30 minutes. ● Pen. ● Test.	Summative assessment. Students are expected to complete the text given in silence.
Activate / Production	Students complete the post- test to evaluate reading comprehension related to Alice in Wonderland. This test includes filling in the gaps with vocabulary.	25 minutes. ● Pen. ● Test.	Summative assessment. Students are expected to complete the text given in silence.
Closure / Wrap-up	Once the test is done, students are asked about which item was more difficult/easier for them. Students return to their original seats.	10 minutes. ● Pen. ● Test.	Formative assessment. Students are asked to participate actively and reorganize the classroom.


Appendix F

Experimental group PPT & material activity




Lewis Carroll

Lewis Carroll was born in Daresbury, England in 1832. He is best known for his iconic works: "Alice's Adventures in Wonderland" (1865). He was also a mathematician who worked in Oxford, he died in 1898.



Characters

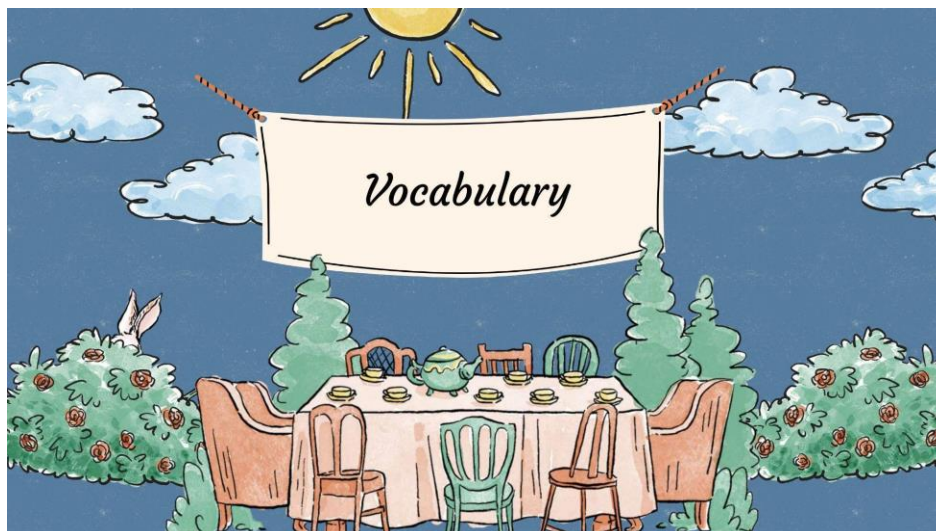


Alice


The White Rabbit

Alice's Sister


Vocabulary




Objects



Watch



Golden key



Actions



Get out



Falling down/
tumbling down



Through



Some extra words

Whiskers

Waistcoat



Daisy - chain





*Start
reading!*

Activity 1

Answer the questions

Group work!



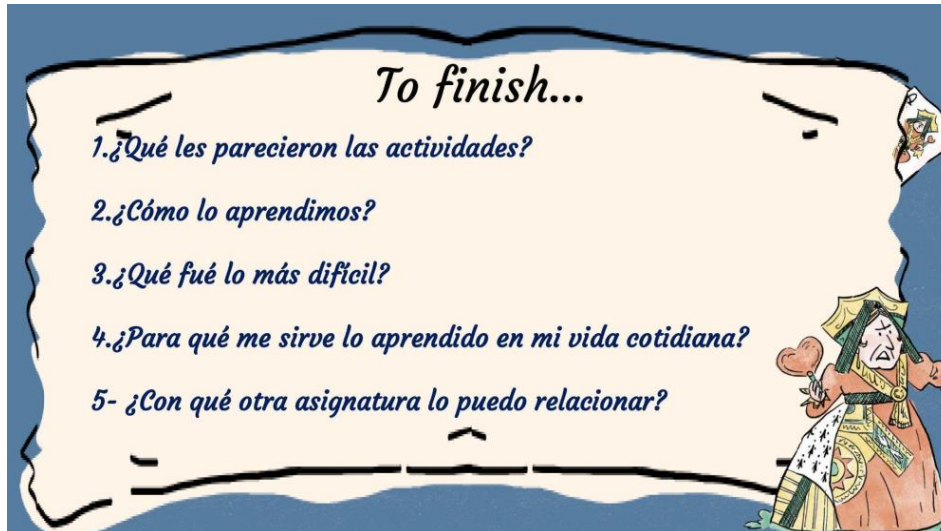
1- Where did Alice fall down?

2-How did she feel when she was falling down?

3-Name 4 symbols in the story.

4-Describe Alice's personality.

5-What does the rabbit hole symbolizes in the story?

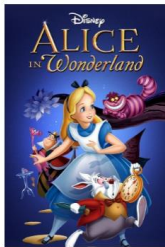


What is this?



- A Watch
- B Waistcoat
- C Daisies
- D Golden key

Who says: "My ears and whiskers"



- A White rabbit
- B Alice
- C Alice's sister

Who was reading a book?



- A Alice
- B Alice's sister
- C White rabbit

Who says: "I must be near the center of the Earth"?



- A Alice's sister
- B White rabbit
- C Alice

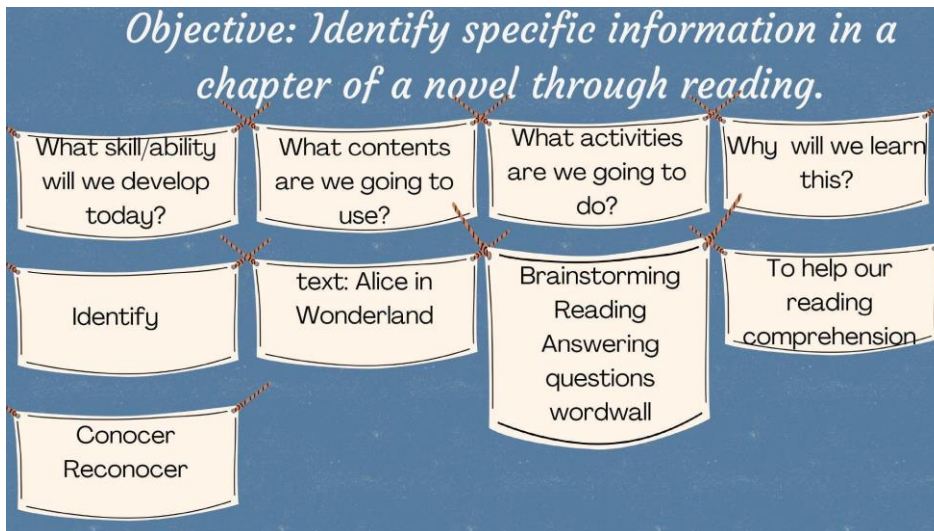
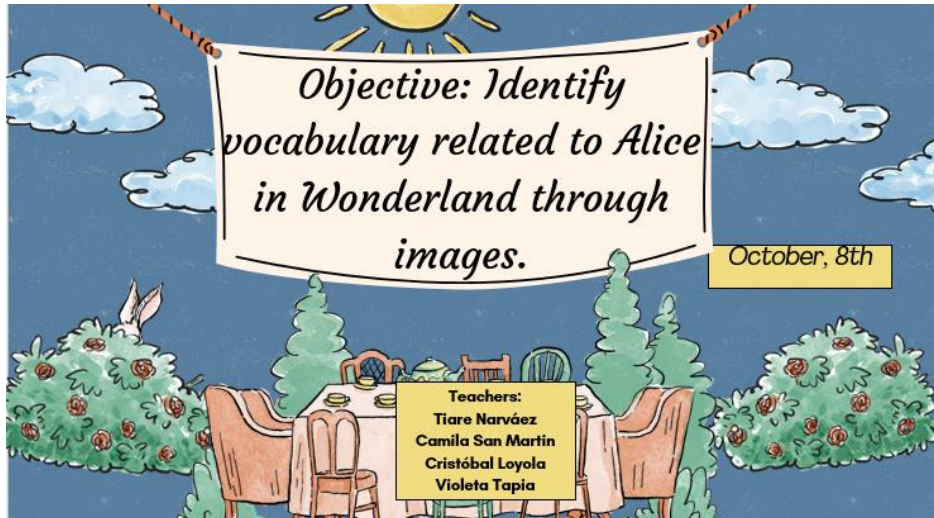
Who was late for something?




- A Alice
- B White rabbit
- C Alice's sister

Appendix G

Control group PPT & activity material

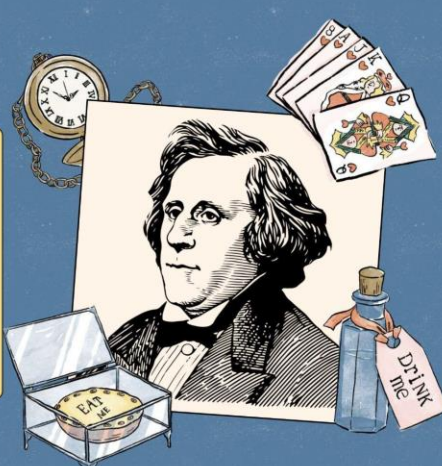


What do you know about Alice in Wonderland?




Lewis Carroll

Lewis Carroll was born in Daresbury, England in 1832. He is best known for his iconic works: "Alice's Adventures in Wonderland" (1865). He was also a mathematician who worked in Oxford, he died in 1898.



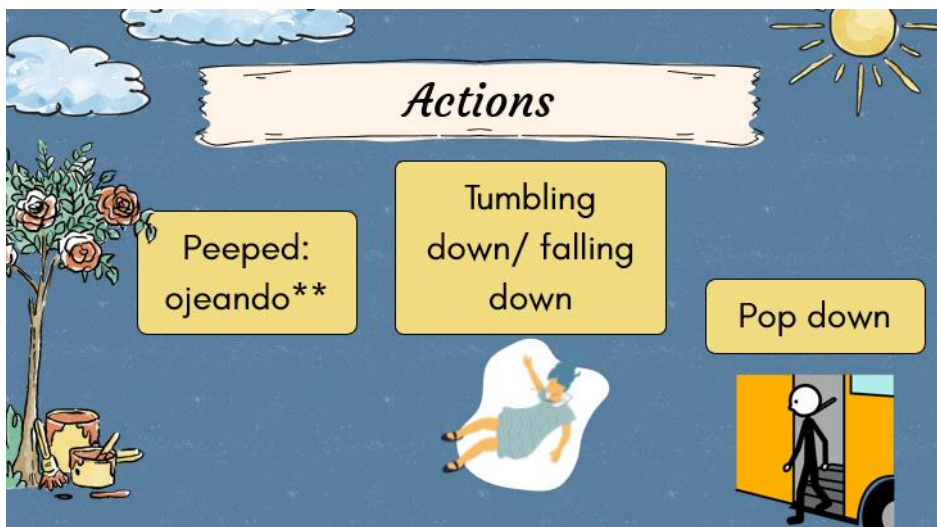
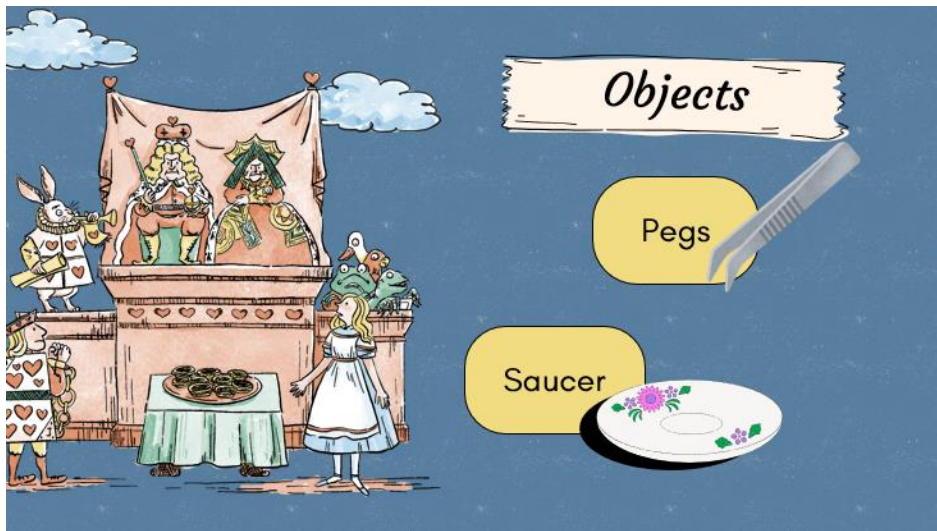
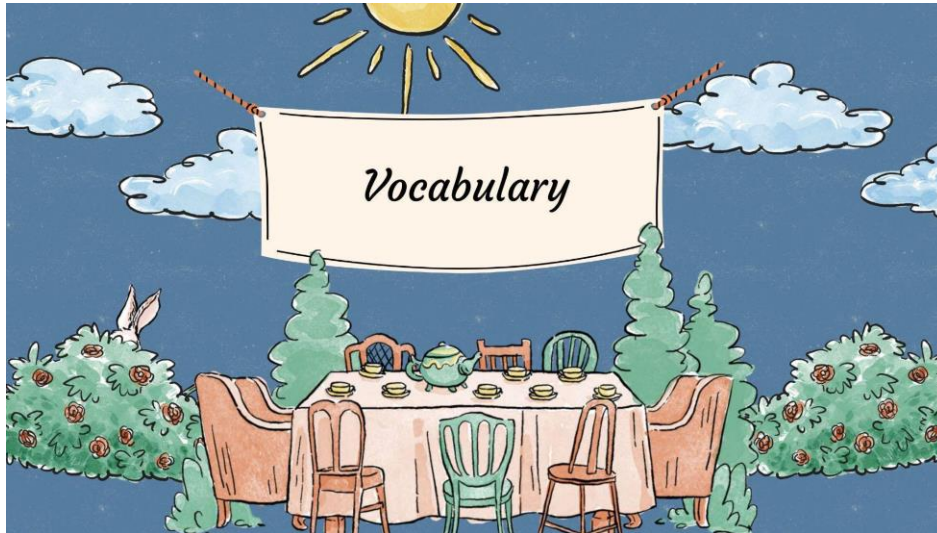
Characters

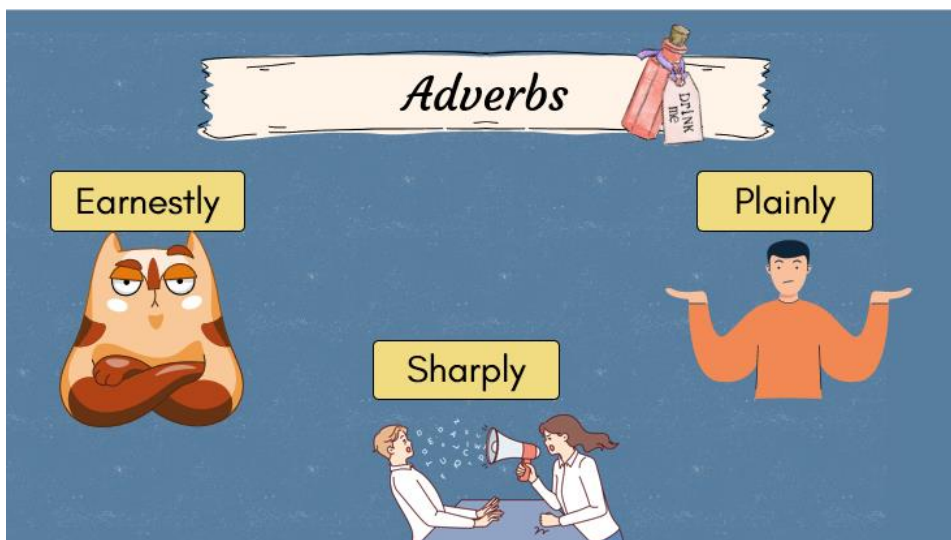
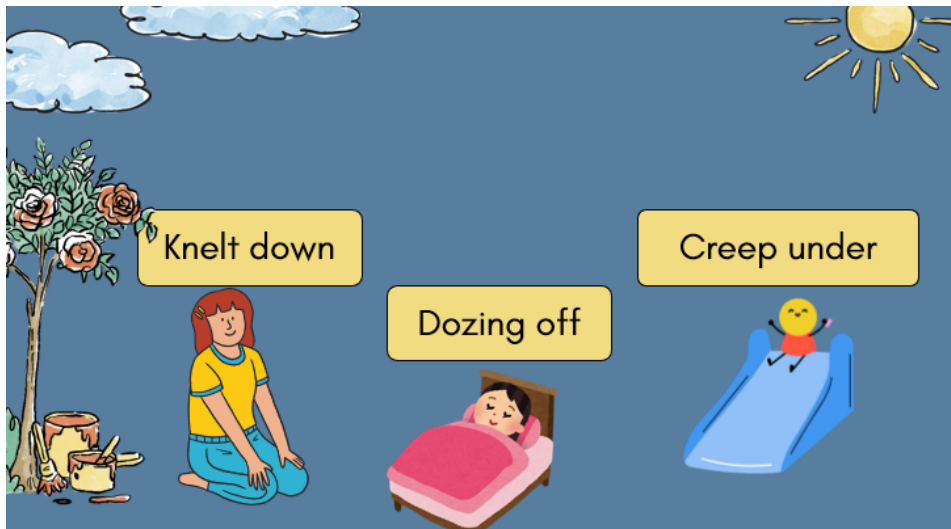
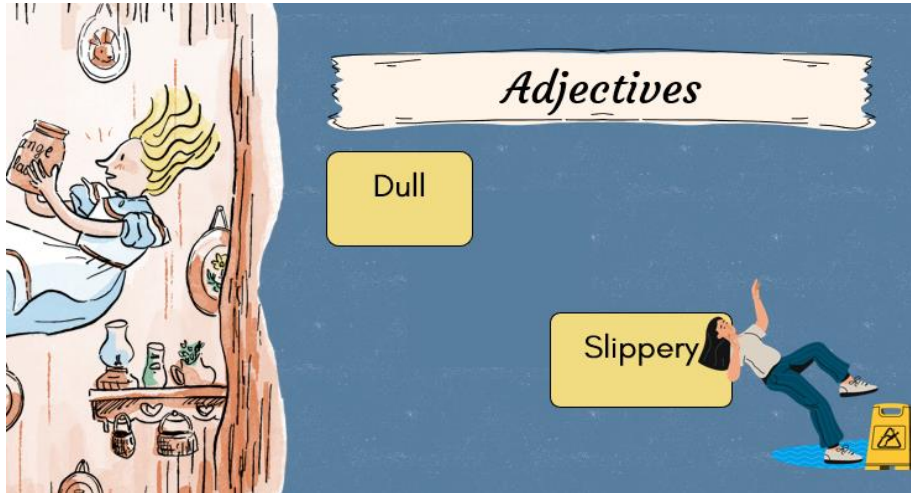


Alice

Alice's Sister


The White Rabbit






Some extra words


Downward




Hedge



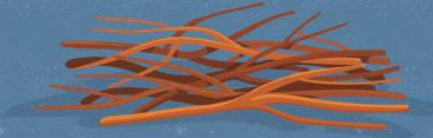
Flashed across




Daisy-chain



Heap of sticks



Out-of-the-way



Shrink



Red-hot poker



Scolded



Currants





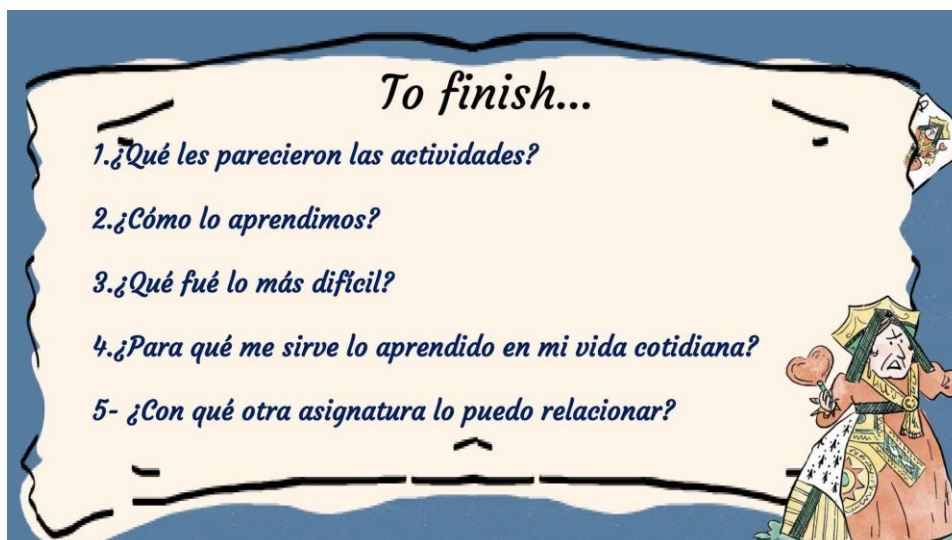
1- Where did Alice fall down?

2-How did she feel when she was falling down?

3-Name 4 symbols in the story.

4-Describe Alice's personality.

5-What does the rabbit hole symbolizes in the story?





What is this?



- A Watch
- B Waistcoat
- C Daisies
- D Golden key

Who says: "My ears and whiskers"



- A White rabbit
- B Alice
- C Alice's sister

Who was reading a book?



- A Alice
- B Alice's sister
- C White rabbit

Who says: "I must be near the center of the Earth"?



- A Alice's sister
- B White rabbit
- C Alice

Who was late for something?



- A Alice
- B White rabbit
- C Alice's sister